

Salesforce.com Customization Handbook

Customize Salesforce to automate your business requirements



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Rakesh Gupta Sagar Pareek

BIRMINGHAM - MUMBAI



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First published: September 2014

Production reference: 1050914

Published by Packt Publishing Ltd. Livery Place 35 Livery Street Birmingham B3 2PB, UK.

ISBN 978-1-84968-598-6

www.packtpub.com

Cover image by Artie Ng (artherng@yahoo.com.au)

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I would like to thank my parents, Kedar Nath Gupta and Madhuri Gupta, and my sister, Sarika Gupta, for supporting me in every step of my life. I would like to thank Packt Publishing for giving me this opportunity to share my knowledge via this book. I would also like to thank Adam Seligman, Vice President, Developer and Partner Marketing at Salesforce.com, for encouraging me. A special thanks to all my well-wishers and friends.

Lastly, I would like to thank my good friend and co-author of this book, Sagar Pareek, who came up with good ideas. I thank him for spending many nights and weekends working on this book with me.

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I would like to thank my parents Sushil Pareek and Chanchal Pareek, my siblings Nikita Pareek and Dr. Sugita Pareek, my gurus Manish Shandilya and Pankaj Kumar Pandey, my mentors Kavindra Patel, Director, Developer Programs and Events at Salesforce.com, and Paresh Gupta, co-founder, Sharp Edge Learning. Special thanks to all the reviewers who spent their precious time reviewing our content. Thanks to the cartoonist Anil Bhargava for his excellent work on the images used in this book.

Last but not least, I would like to thank my best friend and co-author Rakesh Gupta for his constant support and trust that enabled me to reach this level and write this book.

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I wish to thank my parents, family, friends, and especially my wife for helping me maintain time for writing blogs and encouraging me. Also, I would like to thank the Packt Publishing team and the author of this book for giving me this unique opportunity.

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Preface

This book is for Salesforce developers, administrators, customers, and partners to get started with the Salesforce platform configuration. It will act as both a reference for an administrators and a configuration guide for newbie customers who want to configure Salesforce for their organization.

This book covers all the possible configurations of Salesforce for enterprises, such as workflow, approval process, Chatter, data management, and AppExchange overview. We have taken a hands-on approach with real-time scenarios so that readers can get a complete overview on the topics.

Salesforce CRM is a service by Salesforce.com, which is commercial, but all the material in this book is developed using the Developer Edition.

What this book covers

Chapter 1, Getting Started with Salesforce, provides basic knowledge of CRM, proceeds towards Salesforce using examples, and then states the benefits of implementing Salesforce for your organization. It also covers the basic architecture of Salesforce.

Chapter 2, User Management and Organization Administration, starts with various ways to set up a user in Salesforce and then explains the organization administration.

Chapter 3, Making Your Salesforce Data Secure – Security Settings in Salesforce, covers the basics of Salesforce platform security and then goes through various security aspects of Salesforce.

Chapter 4, Domain Management, E-mail Administration, and Google Apps Settings, provides a clear-cut knowledge of domain management, e-mail management, and Google Apps setup.

Chapter 5, CRM Functions and Streamlining Business Requirements, gives the reader an overview on Sales Cloud and Service Cloud.

Chapter 6, Automating a Business Process, serves as a highlight of the book in which the reader will gain knowledge on how to automate a business process in Salesforce.

Chapter 7, Concepts of Data Management, describes various ways to manage data in Salesforce.

Chapter 8, Reports and Dashboards in Salesforce, explains the concept of reports and dashboards in Salesforce. Salesforce reports and dashboards help to analyze information captured in CRM, further assisting to make informed business decisions.

Chapter 9, Chatter Configuration, explains how to configure Chatter for your organization and introduces you to some of the basic settings of Salesforce Chatter.

Chapter 10, Mobile Administration, explains how to perform mobile administration. This chapter also discusses SalesforceA installation and its uses.

Chapter 11, Setting Up Deployment Processes, covers various ways to deploy changes in a live system.

Chapter 12, AppExchange – Extending Salesforce Functionality, teaches you how to extend a Salesforce.com functionality using third-party applications.

What you need for this book

To understand all the projects covered in this book, you will need the following:

- A Salesforce developer account
- A browser
- An Internet connection

Who this book is for

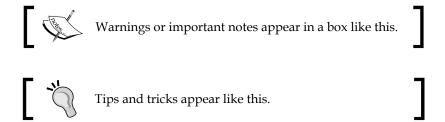
The book is written for anyone, from a newbie to an experienced professional in the Salesforce arena, who wants to learn or explore various aspects of Salesforce customization. After reading this book, you will be able to set up the entire configuration on your own.

Conventions

In this book, you will find a number of styles of text that distinguish between different kinds of information. Here are some examples of these styles, and an explanation of their meaning.

Code words in text, database table names, folder names, filenames, file extensions, pathnames, dummy URLs, user input, and Twitter handles are shown as follows: "In the search bar at the top, enter the keyword vcard."

New terms and **important words** are shown in bold. Words that you see on the screen, in menus or dialog boxes for example, appear in the text like this: "When you click on **AppExchange**, a new window will open in the browser."



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Questions

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Getting Started with Salesforce

The chapter starts with an overview of the Salesforce CRM and its architecture and takes the discussion forward to the various products of Salesforce.com. We will discuss ways to streamline sales processes and improve collaboration in an organization. By the end of this chapter, you will have learned how to create a Salesforce developer account. The following topics will be covered in this chapter:

- Overview of the Salesforce CRM
- Architecture of Salesforce
- Various products of Salesforce
- Streamlining the sales process
- Improving collaboration in your organization
- What makes Salesforce the most innovative company
- Creating a Salesforce developer account

Overview of the Salesforce CRM

In ancient ages, people used papyrus and wood to maintain their customer information, and eventually, this changed to slate. In the seventeenth and eighteenth centuries, kings used to take help from clerks (also known as Munim); these clerks were responsible for maintaining all the customer information on behalf of the king. From time to time, the clerks used to show this account information to the king. The problem with this system was that it was not secured; the clerk could easily manipulate the data for his benefit, and this may have caused losses to the king's business.

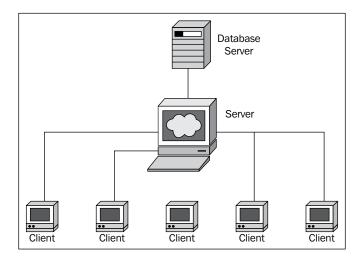


"Necessity is the mother of invention" - Plato

As the time passed, computers were invented, so people used them to save the customer information. In the late nineteenth century, the client-server model came into the picture, which introduced a centralized way of keeping record of the customer information.

Client-server architecture

In a client-server architecture, the end user acts as a client to the service provider; the service provider has its own centralized system known as the server. Once the user connects to the server, they get full rights to access their data. A few examples of CRM software based on the client-server model are Siebel, Oracle RightNow, and SugarCRM. The following is a client-server architecture diagram that describes this concept:



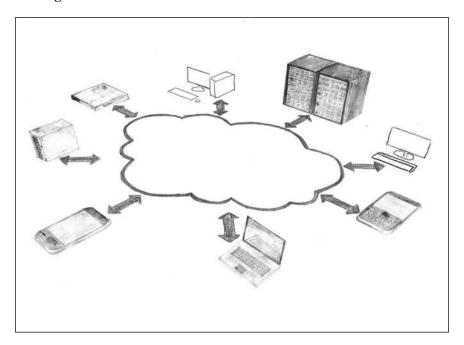
Pros and cons of the client-server architecture

The following table describes the pros and cons of the client-server architecture:

Pros	Cons
The data is centralized once the user connects to the server, which means that he or she gets access to the relative data.	The user does not have access to the data on their system when he or she is not connected to the server.
Any number of users can connect to the server.	Due to the high volume of requests, the server may stop responding or can go down.
Data is stored in company premises or company data center.	If a technical fault occurs at the data center, then the customers will not be able to access the system.
	This architecture needs technical staff to maintain and upgrade the server.
	This architecture requires a dedicated high-speed server and a client's system with high-end graphics and the required software.

There were certain problems with the maintenance and upgrading of the client-server model. So, in the twenty-first century, cloud computing came into the picture.

Cloud computing is the new concept in the computing era, in which customers don't have to worry about server maintenance, upgradation, and scalability. We can say that this is a subscription-based model where we can buy the number of licenses as required and start using the application. A few big names in cloud computing are Amazon, Google, IBM, Microsoft, and Salesforce.com.



As per the preceding diagram, we see that we can connect with a large number of devices (mobiles, tablets, and workstations) via the same server. Customers only need a browser and an Internet connection to use their applications.

Advantages of cloud computing

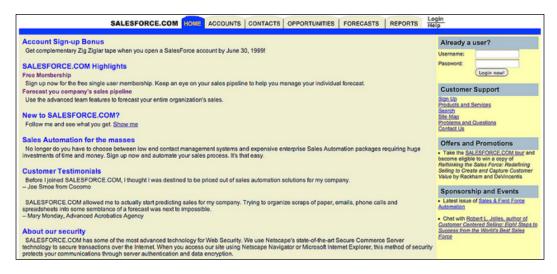
The following are the advantages of cloud computing:

- No large startup fee
- It's a subscription-based model
- No buying, maintaining, and configuring hardware and software
- We can scale up with the growth of our business
- It's more secure and reliable than the client-server model
- We can access it from anywhere, anytime, and via any device; we just need an Internet connection

Introducing Salesforce CRM

Salesforce.com was initially founded as a CRM company in the dot com era in 1999 by former Oracle executives, Marc Benioff, Parker Harris, Dave Moellenhoff, and Frank Dominguez, as a company specializing in **Software as a Service** (**SaaS**). In June 2004, the company went public on the New York Stock Exchange under the stock symbol CRM. Salesforce.com is the leader in the SaaS-based on-demand cloud computing model. Salesforce.com's journey started in 2002 when they launched their first SaaS-based product.

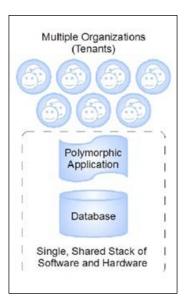
The following screenshot shows the home page of their first product:



The architecture of Salesforce.com

The architecture of Salesforce.com is multitenant. In a multitenant architecture, a single system serves to the whole consumer base of the provider. This means that the system resources are shared among all the users. Salesforce.com provides a single copy of an app to all the organizations, which runs on Salesforce servers; the organizations are permitted to customize the app according to their business requirements. The resources are similar for all the Salesforce customers. Multiple organizations encounter the same interface to interact with the Salesforce cloud.

Salesforce also applies some limits to the usage termed as governor limits to make sure that a user/organization does not hit the threshold that might affect the system performance, thus making the system work slow or go down for other users or organizations. The clients of Salesforce.com are termed as an organization. Multiple organizations are called tenants, and these tenants further have multiple users based upon the organization's user base or employees.



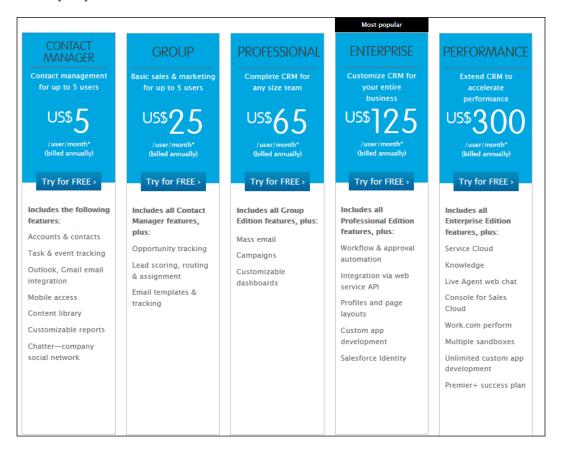
Various products of Salesforce

Salesforce has various products available and they are as follows:

- Sales Cloud
- Service Cloud
- Salesforce Chatter
- Data.com
- Work.com
- Desk.com
- ExactTarget Marketing Cloud
- Salesforce1

Sales Cloud

Sales Cloud is a product designed to automate your sales process. By implementing this, an organization can boost their sales process. It includes campaign, lead, account, contact, opportunity (deal), product, quotes, report, dashboard, and many other features as well, which we will discuss in next chapter. Salesforce offers various Sales Cloud editions, and as per the business needs, an organization can buy any of these different editions:





The price may change over time; whenever your organization is planning to implement Salesforce Sales Cloud, ask your account executive to contact Salesforce.com or visit http://www.salesforce.com/in/sales-cloud/overview/ for the updated price.

Various editions of Sales Cloud

The following are the various editions of Sales Cloud:

- Contact Manager Edition: This edition is for small businesses. It primarily provides the contact management features. By implementing this edition, an organization can track accounts, contacts, activities, calendars, notes and attachments, and reports. Mobile access is also available for users. Users can also access Chatter. For each Contact Manager Edition license, organizations have to pay 5 USD per month.
- **Group Edition**: This edition is for small workgroups or businesses with a limited number of users only. Currently, Group Edition can have a maximum of 10 users per organization. Group Edition contains all the features of Contact Manager Edition, plus some extra features. By implementing Group Edition, organizations can manage their sales life cycle, starting from expression of interest (lead management) to closing the deal and providing customer service. Group Edition offers accounts, contacts, opportunities, leads, and reports. For each Group Edition license, organizations have to pay 25 USD per month.
- Professional Edition: This edition is for small and medium enterprise (SME). It is designed for business needs where a fully featured CRM functionality is required. It provides the CRM functionality of marketing, sales, and service automation. Professional Edition is a perfect fit for small- to mid-sized businesses. It includes all the features of Group Edition, plus the organization can manage campaigns, mass e-mail, and a customizable dashboard. For each Professional Edition license, organizations have to pay 65 USD per month.



In any of the preceding three editions, the API is not enabled. The API is required to use external applications such as dataloader. To enable profiles, workflow, and the approval process, the organization has to pay an extra amount.

- Enterprise Edition: This edition is for businesses with large and complex business requirements. It includes all the features available in Professional Edition, plus it provides advanced customization capabilities to automate business processes and web service API access for integration with other systems. Enterprise Edition also includes workflow, the approval process, profile, page layout, and custom app development. In addition, organizations also get the Salesforce Identity feature with this edition. For each Enterprise Edition license, organizations have to pay 125 USD per month.
- Performance Edition: This edition includes all the Salesforce.com features
 for an entire enterprise. It provides a new level of platform flexibility to
 manage and share all of their information on demand. The key features of
 Salesforce.com Unlimited Edition (in addition to Enterprise Edition features)
 are premier support, full mobile access, and increased storage limits. It also
 includes Work.com, Service Cloud, knowledge base, live agent chat, multiple
 Sandboxes, and unlimited custom app development.



When purchasing Salesforce.com licenses, organizations have to negotiate with Salesforce to get the maximum number of Sandboxes. If your organization wants to have more space, then the organization will have to pay an extra amount. To know more about these license types, visit www2.sfdcstatic.com/in/assets/pdf/datasheets/DS SalesCloud EdCompare.pdf.

Service Cloud

Service Cloud helps your organization to streamline its customer service process. Users can access it anytime, anywhere, and from any device. It helps your organization to close the deal faster. Service agents can connect with customers through the agent console, which means that the agents can interact with customers through multiple channels. Service Cloud includes case management, **Computer Telephony Integration** (**CTI**), Service Cloud Console, knowledge base, Salesforce Communities, Salesforce Private AppExchange, Premier+ success plan, reports, and dashboards with many other analytical features. We will discuss more about Service Cloud in *Chapter 5*, *CRM Functions and Streamlining Business Requirements*.





The price might change over time. Whenever your organization is planning to implement Salesforce Service Cloud, ask your account executive to contact Salesforce.com or visit http://www.salesforce.com/in/service-cloud/overview/ for the updated price.

Various editions of Service Cloud

The following are the various editions of Service Cloud:

Professional Edition: This edition is for small and medium enterprises.
 It provides CRM functionality for customer support via various channels.
 It is a perfect fit for small- to mid-sized businesses. It includes features such as case management, CTI integration, mobile access, solution management, content library, reports, and analytics with sales features such as opportunity management and forecasting. For each Professional Edition license, organizations have to pay 65 USD per month.



In any of the three editions, API is not enabled. To enable profiles, workflow, and the approval process, the organization has to pay an extra amount.

Enterprise Edition: This edition is for businesses that have large and complex business requirements. It includes all the features available in Professional Edition, plus it provides advance customization capabilities to automate business processes and web service API access for integration with other systems. It also includes the service console, service contract and entitlement management as well as the workflow and approval process, web chat, offline access, and knowledge base. Organizations get the Salesforce Identity feature with this edition. For each Enterprise Edition license, organizations have to pay 125 USD per month.



For the web chat, knowledge base, and Salesforce communities as services, organizations have to pay an extra amount.

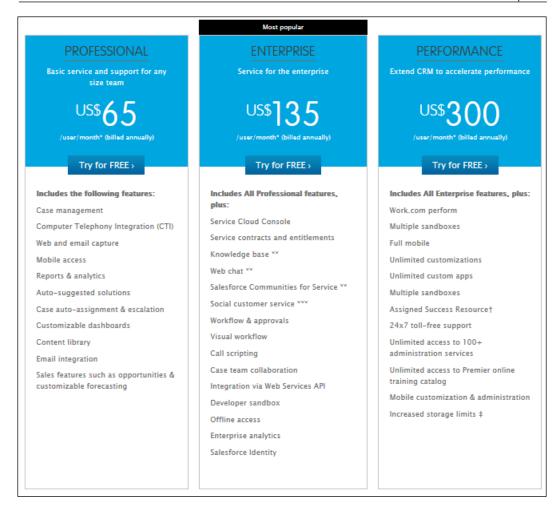
• **Performance Edition**: This edition includes all the Salesforce.com features for an entire enterprise. It provides all the features of Enterprise Edition and a new level of platform flexibility to manage and share all of their information on demand. The key features of Salesforce.com's Performance Edition (in addition to the Enterprise Edition features) are premier support, full mobile access, unlimited custom apps, and increased storage limits. It also includes Work.com, Service Cloud, knowledge base, live agent chat, multiple Sandboxes, and unlimited custom app development.



When purchasing a license organization, you have to negotiate with Salesforce to get the maximum number of Sandboxes. If you want to more space, then the organization will have to pay extra. To know more about these license types, visit the Salesforce website http://www2.sfdcstatic.com/in/assets/pdf/datasheets/DS ServiceCloud EdCompare.pdf.

Salesforce Chatter

Chatter is a social platform that integrates with Salesforce's infrastructure to improve the collaboration in the organization. In other words, Chatter is a way to collaborate with team members at the workplace or with customers. It is basically a combination of Twitter and Facebook. It helps organizations to implement transparency in communication and improve customer satisfaction. It gives users access to real-time information about what is going on in the company. It is necessary to empower the entire organization with tools to communicate quickly and effectively with the right information at the right time and this is what Chatter does. By implementing Chatter, organizations can boost their **Return of Investment (ROI)**. We will discuss more about Salesforce Chatter in *Chapter 9*, *Chatter Configuration*.





The price might change over time, so whenever your organization is planning to implement Salesforce Chatter, ask your account executive to contact Salesforce.com or visit https://www.salesforce.com/in/chatter/overview/Various editions of Salesforce Chatter for the updated price.

The following are the various editions of Chatter:

- Chatter: This is a free license for organizations to improve collaboration. It includes basics collaboration features such as Chatter Messenger, status update, activity feeds, group, file sharing Chatter desktop, and mobile applications.
- Chatter Plus: For this license, the organization has to pay 15 USD per user
 per month. Users with this license type can access account (read only),
 contact (read only), 10 custom objects, one custom app, solutions and ideas,
 tasks and activities, advanced sharing, Salesforce Private AppExchange,
 Salesforce identity, and many other features.



For Professional Edition customers, new Chatter users will not have access to accounts, contacts, and custom objects unless they have the profiles and page layouts add-on product previously enabled. To know more about this license type, visit the Salesforce website https://secure2.sfdcstatic.com/in/assets/pdf/datasheets/DS Chatter.pdf.

Data.com

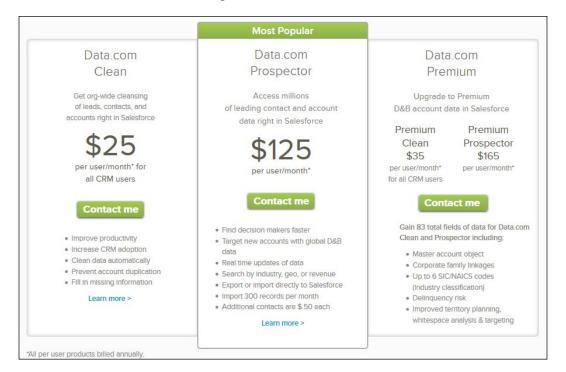
Data.com is an online business directory of companies and business professionals. It is maintained and accessed by a worldwide community of over a million subscribers along with Salesforce.com. It allows subscribers to exchange and share their business information. Data.com helps organizations to clean their data, or in other words, it provides you with the correct data whenever you need it. Organizations can perform a real-time cleanup of their accounts, contacts, and leads. Data.com helps you to find the right leads for your organization. Data.com allows you to access a business directory where you can find contacts and company-related information. Data.com is one of the largest business directories that contain business contact information and company information of private as well as public-listed companies. No other business directory provides contacts with both phone and e-mail information. You can find leads or customers for your organization by using Data.com. Two important facts about Data.com are as follows:

- 4+ million in-depth company profiles from D&B
- 30+ million highly accurate leads from Jigsaw

Various editions of Data.com

The following are the various editions of Data.com:

• Data.com Clean: This is an essential part of the Salesforce's Data.com package. It offers a number of ways to update your Salesforce account, contact, and lead records with Data.com. It compares them with the records from Data.com and links these records that match the criteria, thus providing clean status information on the Salesforce record. For each Data.com Clean license, organizations have to pay 25 USD per month. For each Data.com premium clean license, organizations have to pay 35 USD per month, as shown in the following screenshot:





The price may change over time. Whenever your organization is planning to implement Data.com, ask your account executive to contact Data. com support or visit http://www.data.com/editions-pricing/index.jsp for the updated price.

• Data.com Prospector: To make use of most of the features of Data.com, your organization needs to have a Data.com Prospector license. Data.com offers two versions of Data.com Prospector. It will help organizations add data from Data.com: Data.com Corporate Prospector and Data.com Premium Prospector. For each Data.com Corporate Prospector license, organizations have to pay 125 USD per month. For each Data.com Premium Prospector license, organizations have to pay 165 USD per month.

Work.com

Work.com is a Salesforce product that aligns sales and marketing people, motivates your team, and provides performance-driven real-time coaching. Here, you can do few things, such as:

- Alignment between different teams
- Set personal goals with business goals
- Recognize sales and marketing people publically so that they will get motivated

The following screenshot is an example of a use of Work.com. Here, Rakesh is complementing Sagar as he has closed the deal faster than expected:



Various editions of Work.com

The following screenshot shows us the features and pricing of Work.com:

	Motivate \$10 /user/month	Align \$15 /user/month	Perform \$20 /user/month
Motivate			
Real-time recognition & rewards	✓	✓	✓
Chatter—company social network	✓	✓	✓
Rich social collaboration	✓	✓	✓
Customizable recognition badges	✓	✓	✓
API access to all Work.com data	✓	✓	✓
Single Sign on with salesforce.com	✓	✓	✓
Customizable reports & dashboards	✓	✓	✓
Mobile access	✓	✓	~
Align			
Align Company, Team, & Personal Goals		✓	✓
Coaching integrated to sales process		✓	✓
Compatible with OKR, SMART, etc		✓	✓
Goals linked to salesforce.com data		✓	~
1:1 coaching, feedback, & mentoring		✓	✓
Perform			
Easy Performance Summaries			✓
HR Compliant Performance Summaries			✓
Performance Calibration			~



The price may change over time. Whenever your organization is planning to implement Work.com, ask your account executive to contact Work.com or visit http://work.com/pricing for the updated price.

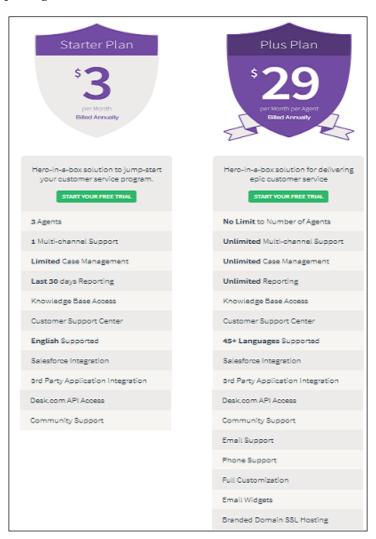
The following are the various editions of Work.com:

- Motivate: This license of Work.com lets you recognize and reward your employees and team members in real time. Here, you can offer rewards such as Amazon.com gift cards. You can use gamification and boost your business outcomes. Each Motivate license costs 10 USD per month per user.
- Align: This license lets you use all the features of Motivate license plus have
 privileges to align your team member's goals with the organization's goals
 as well as for coaching and monitoring purposes. Each Align license costs 15
 USD per month per user.

• **Perform**: This license lets you use both of the preceding licenses plus has the advantage of using the performance analysis features of Work.com. For this license, organizations have to pay 20 USD per month per user.

Desk.com

Organizations can use Desk.com to simplify and make life easier for customer support agents. Data.com is a Salesforce product where you get support from all the social channels on a single platform. Service agents can access Desk.com from their desktop and mobile. The following screenshot shows Desk.com's features and pricing:





The price may change over time. Whenever your organization is planning to implement Desk.com, ask your account executive to contact Desk.com support or visit http://www.desk.com/pricing for the updated price.

Various editions of Desk.com

The following are the various editions of Desk.com:

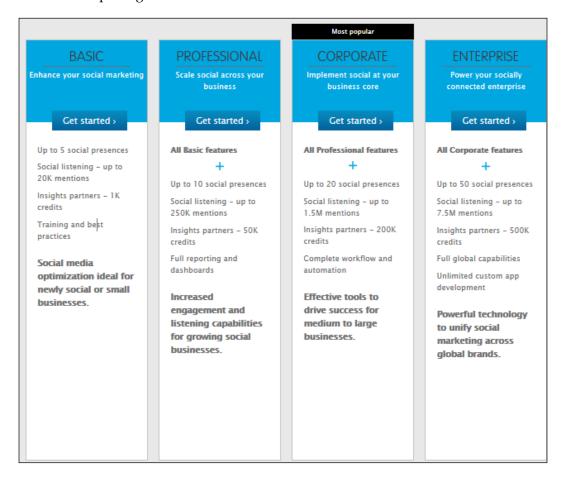
- Starter Plan: In this plan, you will get three support agents' access, including this application, one multichannel support, last 30 days reporting, and a knowledge base access. It also includes Salesforce integration and community support. Organizations have to pay 36 USD per year.
- **Plus Plan**: In this plan, you get all unlimited features of Desk.com, plus e-mail and phone support with full customization and branded Domain SSL hosting. For this, organizations have to pay 29 USD per agent per month but it will be charged annually.

ExactTarget Marketing Cloud

Salesforce renamed its marketing cloud product to ExactTarget Marketing Cloud after the acquisition of Exact Target in 2013 for 2.5 billion USD. This product is used for marketing purposes; it is a marketing automation tool. Using this product, you can create a campaign with a combination of e-mail, mobile, social media, and the Web. Here, you can listen to your customers with Radian6, publish with Buddy media, and advertise with Social.com.

Various editions of ExactTarget Marketing Cloud

The following screenshot gives us information about ExactTarget Marketing Cloud features and pricing:





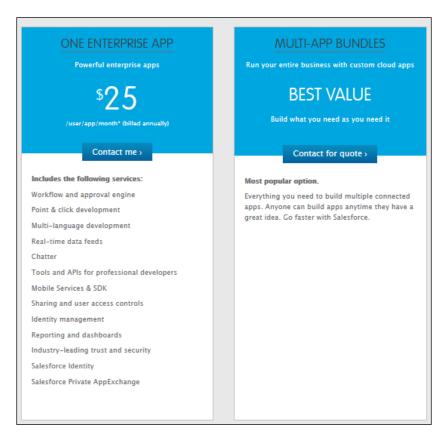
The price may change over time. Whenever your organization is planning to implement a marketing cloud, ask your account executive to contact marketing cloud support.

Salesforce1

Salesforce1 was announced at Dreamforce' 13 in order to take Salesforce to the next level, that is, the mobile platform. It is a platform to develop mobile applications, or in other words, you can have one platform for all your customer needs. Using Salesforce1, an organization can connect every employee, partner, product, and device with their customer using the power of social media, mobile, and the cloud. Salesforce1 is built on API-first to enable developers to build the next generation of connected apps. With 10x more APIs and services, developers can now build the next generation of social and mobile apps for employees, products, and customers faster than ever before. Salesforce1 solves the problem of lack of mobile specialists and lagging innovation with a revolutionary approach to app development for the social and mobile-first world.

Various editions of Salesforce1

The following screenshot shows the One Enterprise App and the Multi-App Bundles of Salesforce1:





The price may change over time. Whenever your organization is planning to implement Salesforce1 ask your account executive to contact Salesforce. com support or visit http://www.salesforce.com/in/platform/overview/ for the updated price.

The various editions of Salesforce1 are as follows:

- One Enterprise App: This license lets you connect to One Enterprise App. You can access the workflow, approval process, point and click development, Chatter, and Salesforce's private AppExchange. For this license, an organization has to pay 25 USD per user per license.
- Multi-App Bundles: This license contains all the features that developers require to build any number of connected apps. For the cost, the organization needs to contact Salesforce for a quote.



To find out more about Salesforce1 license types, visit http://www.salesforce.com/platform/overview/.

Salesforce.com – the most innovative company

To understand Salesforce.com's innovation in the CRM industry, we have to go more than a decade back, when other vendors used to provide CRM software as a client-server architecture model. The disadvantage of this model was that customers had to maintain their server (or servers), needed higher resources to maintain their software, and maintain traffic, and so on. In 1999, Marc Benioff came up with an idea of cloud-based CRM software (SaaS); the advantage of this model is that Salesforce. com is responsible for maintaining the server and the resources including the upgrade of all software. The best part of Salesforce CRM is the subscription-based model, which comes included with basic CRM applications such as Sales Module, Service Module, and Chatter, which can all be further customized by the users. Salesforce.com was nominated as the most innovative company of the year by Forbes for three years in a row (2011 to 2013).

Salesforce.com pushed collaboration in organizations to the next level by using Chatter; so, in 2011, Forbes nominated Salesforce.com as the most innovative company of the year. Many companies around the globe changed their way of collaboration by using Chatter. They can access Chatter anytime and anywhere by using the Chatter mobile application.

In 2012, Salesforce.com came with a different strategy to take the lead from other CRM vendors. They acquired Radian6 (the social media monitoring tools) and Buddy Media (by using this you can publish shareable content) by investing \$1 billion. These two acquisitions helped Salesforce.com form a new product known as Marketing Cloud. It helps brands to know what is trending about them across all major social networks. This was the reason for Forbes to nominate Salesforce.com as the most innovative company of that year.

In 2013, Forbes once again nominated Salesforce.com as the most innovative company of the year for the third time in a row. Showing its interest towards acquisition and promoting new ideas, Salesforce.com spent more than \$2.5 billion this year to acquire ExactTarget (a digital marketing software vendor) and Pardot (a B2B marketing automation company). This year, Salesforce.com announced their new Salesforce1 platform.

Streamlining the sales process, a chain of customer-focused steps, enables sales professionals to fundamentally increase their win rates, build customer retention, and increase revenue production. Each step consists of some key activities and has a predictable, measurable outcome.

Key problems with ancient sales processes

The following are some of the key problems that arise due to ancient sales processes:

- There is an uncertainty about information. If the sales processes are not aligned, then you are not able to pass on the correct information to the sales team at the right time. It may cause a loss of business or it may lead you to make the wrong sales decisions.
- There is no system to maintain sales. Many organizations still maintain their sales processes on paper or Excel. This means that they are not able to track won or lost causes in the system. Sales representatives are unable to assign leads to the correct team if they are not in an automated system.
- There is a lack in forecasting. Many organizations do not have a sales forecasting process, which means organizations do not have forecasting accuracy and predictability.
- There is no feedback loop. Feedback from customers is really important
 to improve business processes, but in older times, people had one-to-one
 meetings to gather feedback from customers and never had all the gathered
 feedback in one single place.

- Sometimes sales representatives have to wait for a long time to get approval from higher authorities if organizations are not using a centralized sales process.
- For internal collaboration, organizations are still using e-mail services.

Key points for standardized sales performance processes

The following are the key points:

- Automate your sales process by using the CRM software
- Use forecasting features to optimize your sales process
- Pass a customer's information to the sales team at the right time so that they can know more about them at critical times
- Use social media to learn more about your customers
- Improve internal collaboration by using a cloud-based system
- After the closing of every deal, the system will send a survey link to customers to gather their feedback about your sales process and sales team

Using Salesforce to streamline your business

Salesforce provides many features to streamline your business processes. Here are a few examples:

- Here, you can create different sales processes according to your business requirement (it means different sales process for different verticals and companies)
- Automatically assign leads to proper teams and queues based on your business model
- Implement the approval process to get an approval from higher authority
- Use Chatter to boost collaboration between the teams and team members
- You can send an e-mail alert and assign tasks based on business process in Salesforce; everything is automated
- Use reports and dashboards to share the correct business status with higher officials

We will discuss more about the workflow and approval process in *Chapter 6*, *Automating a Business Process*.

Improving collaboration in your organization

In the past, collaboration in an organization used to happen through letters, spreadsheets, or record keeping. People used to express their views, updates, and reviews through notice boards centrally located in the organization or via e-mail. Notice boards were used to express the latest happenings in an organization. As the time passed, organizations started using telephones, faxes, and telegraph to send the updates from one department to another department/person. The collaboration was a wide and vast process and used to take some days and months to exchange the latest information. The process had many steps and the failure of any step led to problems within the organization.

In the sales process, if any information was missing, it may lead to a wrong decision being taken. Imagine if the sales representatives of an organization are not updated with the latest product or a price change; this might lead to loss of profit/customers. The process was not quick and easy as one department may or may not be having proper information about one or the other. This could lead to serious problems. Likewise, suppose the marketing department is not able to explain the potential interest to a customer, which means that the organization is unable to get new customers, or is unable to get the right ideas for a new campaign.

In CRM, collaboration is the main essence in order to succeed. If any of the steps fall behind, the organization suffers. Salesforce introduced Chatter for productive collaboration in the organization and even enabled users to invite their customers to the platform to share new ideas, exchange information, and so on.

Salesforce Chatter has unique features that help organizations to become more productive. They are as follows:

- Share files
- Status update
- Invite your customers to Chatter
- Comment on status updates
- Chat
- Polls
- Create groups
- Chatter publisher actions
- Follow and unfollow people

We will discuss more about the preceding features in *Chapter 6, Automating a Business Process*.

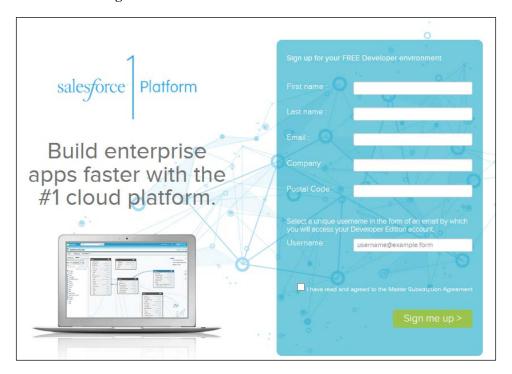
Creating a Salesforce developer account

To get started with the given topics in this book and to practice them on your own, it is recommended that you have access to a Salesforce developer account. Using Salesforce production instance is not essential for practicing. You can use Salesforce Sandbox or a developer account to practice on the examples covered in this book.

If you currently do not have your own developer account, you can create a new Salesforce developer account. The Salesforce developer account is completely free and can be used to practice newly earned concepts, but you cannot use this for commercial purposes.

To create a Salesforce developer account, follow these steps:

- 1. Visit http://developer.force.com/.
- 2. Click on the **Free Developer Edition** link.
- 3. It will open **Sign Up Page** for your free developer account, and it will display the following screen:

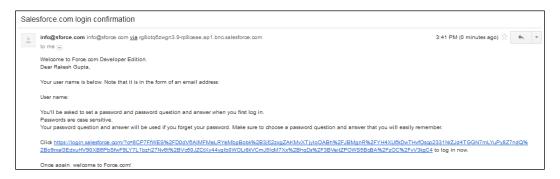


- 4. Fill in the form and accept Master Subscription Agreement.
- 5. Click on the **Sign me up >** button.



The Salesforce login ID, **Username**, should be unique and in the form of an e-mail address.

Once you register for the developer account, Salesforce.com will send you the login details on the e-mail ID that you provided during registration. By following the instructions in the e-mail, you are ready to get started with Salesforce. The e-mail will look as shown in the following screenshot:



Once you click on the link, it will ask you to choose your password and set the security question and answer. You can use the security question if you forget the password. If you forget your password, navigate to http://login.salesforce.com and click on Forgot your Password link and enter your username. Salesforce will send a new password to your e-mail address. If your Salesforce account is locked and you are the only Salesforce administrator, then Salesforce will automatically unlock your account after 15 minutes.

Logging in to Salesforce.com

The following are the steps to log in to Salesforce.com:

- 1. If you are logging in to Salesforce production or developer instance, use http://login.salesforce.com.
- 2. If you are logging in to the Salesforce Sandbox instance, then use http://test.salesforce.com.
- 3. Once the login screen is loaded, provide your username and password.
- 4. Salesforce may ask you to enter a verification code depending upon the organization's security and settings.

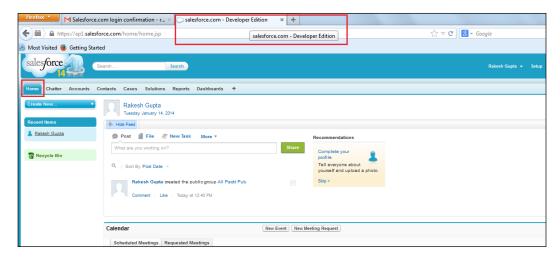
5. After verification, you will be allowed to access Salesforce, and next time, Salesforce will not ask for the verification code.



You need to enter a verification code every time you access Salesforce from a different computer or device. We will discuss more about this in *Chapter 3, Make Your Salesforce Data Secure – Security Settings in Salesforce*.

First impression of the Salesforce developer account

Once you successfully complete the verification process, Salesforce will redirect you to the home page. The page you see the first time after logging in is known as the landing page, and if you move your mouse pointer to your browser's tab, you will be able to identify which Salesforce edition you are currently using. You can change the landing page, but we will discuss this in the later chapters. To play with your settings, you can click on the **Setup** link that is available in the top-right corner adjacent to your name on the page, as shown in the following screenshot:



Benefits of using the Salesforce developer account

There are certain benefits of using the Salesforce developer account:

- Salesforce provides it free of cost to developers as a playground for their work
- A developer account can never expire
- You can experiment with certain development activities
- You can share your application with peers by creating packages
- The developer account comes with a number of preinstalled applications such as sales, call center, marketing, and ideas
- Updates are automatically installed in your developer account; these updates include:
 - Salesforce customer portal
 - Two Salesforce CRM licenses
 - ° Two Salesforce mobile licenses
 - Three Salesforce platform licenses
 - Five Salesforce partner licenses
 - ° 10 Salesforce customer portal manager licenses

The following screenshot shows the license details of the developer organization:

Jser Licenses					User Licenses H
Name	Status	Total Licenses	Used Licenses	Remaining Licenses	Expiration Date
Salesforce Platform	Active	3	0	3	
Authenticated Website	Active	10	0	10	
High Volume Customer Portal	Active	10	0	10	
Customer Community Login	Active	5	0	5	
Work.com Only	Active	3	0	3	
Customer Portal Manager Custom	Active	5	0	5	
Identity	Active	10	0	10	
Silver Partner	Active	2	0	2	
Gold Partner	Active	3	0	3	
Customer Portal Manager Standard	Active	5	0	5	
Force.com - App Subscription	Active	2	0	2	
Partner App Subscription	Active	2	0	2	
Partner Community	Active	5	0	5	
Partner Community Login	Active	5	0	5	
Customer Community	Active	5	0	5	
Force.com - Free	Active	2	0	2	
Chatter Free	Active	5,000	0	5,000	
Chatter External	Active	500	0	500	
Salesforce	Active	2	1	1	

Limitations of Salesforce Developer Edition

The following are the limitations of Salesforce Developer Edition:

- For data storage, you get 5 MB and for file storage (attachments), 20 MB.
 To check your developer account, follow the Name | Setup | Administration
 Setup | Data Management | Storage Usage path.
- It offers 5000 API calls every 24 hours.
- You can install any number of applications in your developer account.
- A 500 MB bandwidth and 10-minute service request time limits (per rolling 24 hours) for Force.com site applications.
- You have only two Salesforce full licenses.
- You cannot use this developer account for commercial purposes. I would refer to the article at https://login.salesforce.com/help/pdfs/en/salesforce_app_limits_cheatsheet.pdf to check the limits of each edition.

Summary

In this chapter, we went through an overview of Salesforce as well as its architecture. We discussed Salesforce's various products and its available editions on the market. We also discussed how Salesforce improves the ROI experience. We learned different ways to streamline your Sales process and improve collaboration in your organization. At the end, we discussed how to create a developer account and learned its benefits and limitations. In the next chapter, we will go through various organization setup concepts such as setting up a company profile and user management concepts such as setting role and profiles for your organization.

User Management and Organization Administration

This chapter starts with an overview of your company's profile settings, followed by role hierarchy and profiles in Salesforce. We will also discuss permission sets, various ways to set up users for an organization, and key concepts related to it. We will learn about public groups and the queue and its significance. Later, we will go through the Freeze user concepts, how to unlock user accounts, and finally brief you about the personal setup. All these concepts are very important as they are a one-time setup and will dictate how your Salesforce organization will work in accordance with your organization structure.

The following topics will be covered in this chapter:

- Setting up company information
- Multiple currencies, and the fiscal year and customizing it
- Setting up business hours and their effects
- Holiday settings and language settings and their importance
- The significance of roles and profiles
- Permission sets
- Setting up users
- Locking and unlocking users
- Freezing a user's account
- The benefits of a login history
- Groups and their uses
- Queues and their significance
- Personal setup

Setting up company information

In the previous chapter, we went through ways to set up a developer account, the login concept, and what happens once you log in to Salesforce.com. Now, we will move forward to the next step. This feature is important as it is used to provide all the basic information about your company, such as the local address and phone numbers.

Let's start with an example. Appiuss Inc. just brought Salesforce **Enterprise Edition** (EE). Now the managers Sara Bareilles and Robby Williams are keen to know how to update the company information, its contact details, the default time zone, and set the corporate currency.

Once the company has purchased the Salesforce organization, the company has to set up its profile. Under the heading **Company Profile** in the **Setup** tab, there are various setups available as shown in the following screenshot:



Updating the company's information

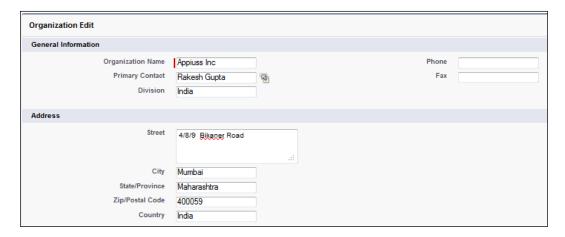
At any time, the system administrator can update the company's information in Salesforce. The company information page contains the company's address, the company's contact details, corporate currency, organization default time zone, and language and locale setting. You can also use the page to find details about licenses such as the licenses available, used, and remaining.

Let's start updating the company's information. Now the user can think why the organization has to update the company information and contact details.

This company information and contact detail page contains the organization's address, the contact person's name, and his or her contact details. Whenever the organization updates this information, it is automatically updated in the Salesforce. com database, so the Salesforce.com support people are able to contact you whenever you raise a case.

To update the company information for the organization, follow these instructions:

- 1. Navigate to Setup | Administer | Company Profile | Company Information.
- 2. Click on **Edit** and you will see the following screenshot:



- 3. Now you will be able to update the organization's name, the primary contact, the contact details, and the company information.
- 4. Click on **Save** to update the company information.

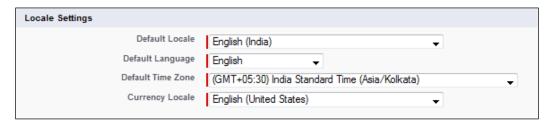
The following table provides a description of the fields available on the company information page:

Field	Description
Organization Name	Here you can enter the name of your organization. Up to 80 characters are allowed in this field.
Primary Contact	This is the person who is the main contact or administrator of the organization. Up to 80 characters are allowed in this field.
Division	The group or division that uses the service, for example, Appiuss Sales. Up to 40 characters are allowed in this field.
Fax and Phone	Here you can enter the fax and phone number. Up to 40 characters are allowed in this field.
Address (Street, City, State/Province, Zip/Postal Code, Country)	In these fields, you can define the organization address.

Locale setting

Under the **Locale Setting** tab, the user can update the **Default Locale**, **Default Language**, **Default Time Zone**, and **Currency Locale** fields for the organization. To update this information, follow these steps:

- 1. Click on the **Setup** option.
- 2. Navigate to Administer | Company Profile | Company Information.
- 3. Click on Edit.
- 4. Go to the **Local Settings** tab and you will see the following screenshot:



- 5. Change the details as per your organization's policy.
- 6. Click on **Save** to update the company information.

Let's start with an example. Sara Bareilles says to the system administrator (Sagar Pareek and Rakesh Gupta), "What is the benefit of these changes? Where will the changes be reflected?".

These changes are the default for the organization, and whenever you create a user, these values arrive as the default. However, you can change the values for these fields. The locale settings determine the following display formats:

- Date and time
- Users' names
- Addresses
- Commas and periods in numbers



Selecting locale names (with the country in parentheses) will set the default currency. Only the languages available here will be enabled for your organization. Selecting the default time zone in which the organization is located will set default time zone. Currency locale affects the format of the currency amount and is available for single currency organizations only.

Salesforce.com newsletter and login notification settings

Here, the administrator is able to choose whether he or she wants to receive user-targeted promotional e-mails from Salesforce.com:



The following points describe the login information options available in Salesforce:

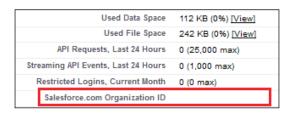
- Hide Notices About System Downtime: Once you tick this checkbox, users
 will not get any advance notice of planned system downtime when they are
 logged in to Salesforce
- Hide Notices About System Maintenance: Once you tick this checkbox, users will not get any advance notice of planned system maintenance when they are logged in to Salesforce

Corporate currency

You are able to define corporate currency for your organization. Corporate currency is the revenue that is reported by the organization's corporate headquarters. These features are enabled for organizations that use multiple currencies; otherwise, it shows the organization's local currency. If your organization Australia, it will be AUD, for example. This is an important feature as it determines the currency in which your organization transacts.

Additional features

In addition to providing the ability to update company-related information, the company information page also provides information on the data and file space used, API requests in the last 24 hours, and so on, as shown in the following screenshot:





In the organization detail section, there is also the Salesforce.com organization ID. This ID is unique for each Salesforce.com organization and uniquely identifies the instance. The Salesforce.com organization ID might be required while communicating with the Salesforce.com support team, especially when activating limited and feature activations.

Viewing the licenses

The company information page also displays all the user licenses, feature licenses, and permission set licenses that you have purchased for your organization. On the company information detail page, the user can find detailed information about these licenses as follows:

- **User license type**: This license type allows a user to use different functionalities within Salesforce and determines which profiles and permission sets are available to the user. You may have more than one type of user license in your organization.
- Permission set license type: You can assign permission sets to give a user
 access to certain features. However, sometimes permission sets require
 users to have a permission set license before they can be allotted the
 permissions in question.
- Feature license type: This license type allows a user to use an additional Salesforce feature such as marketing or connecting offline.



Depending on the features that are enabled for your organization, you might be able to assign more than one type of feature license to users.

This related list gives more information for each type of license:

- **Status**: This indicates the status of the license. It should be active or inactive.
- **Total licenses**: This indicates the number of licenses that your company is paying for and that are available to you.
- **Used licenses**: This is the number of licenses that you have assigned to users.
- **Remaining licenses**: This is the number of unused licenses.

In addition to the license types, the following portal login information is listed for organizations that have customer portals or partner portals enabled:

- **Monthly Logins Allotted**: This shows the maximum number of customers or partners portal logins allowed per month.
- **Monthly Logins Used**: This indicates the number of successful logins for all the users associated with a customer or partner portal user license for the month.

User license type

The following license types are currently available for purchase:

License name	Description
Salesforce	This gives full access to standard CRM and AppExchange apps. Users can access both standard and custom apps. Each license has its own additional storage for Enterprise, Unlimited, and Performance Editions.
Salesforce Platform	This gives access to custom apps but not to the standard CRM functionality. With this license, users can access the accounts, contacts, reports, and dashboards, and AppExchange apps. This license type is cheaper than the Salesforce license.
Force.com One App	This license is for users who want to access only one custom application; by using this license, users don't have access to the standard Salesforce CRM features. This license type is cheaper than the Salesforce license. Each Force.com One App license provides an additional 20 MB of data storage and 100 MB of file storage, regardless of the Salesforce Edition.

License name	Description
Force.com App Subscription	By using this license type, organizations can grant users access to a Force.com Light App or Force.com Enterprise App, neither of which include the CRM functionality.
	A Force.com Light App has up to 10 custom objects and 10 custom tabs, it has a read-only access to accounts and contacts, and supports object-level and field-level security. A Force.com Light App can't use the Bulk API or Streaming API.
	A Force.com Enterprise App has up to 10 custom objects and 10 custom tabs. In addition to the permissions of a Force.com Light App, a Force.com Enterprise App supports record-level sharing, can use the Bulk API and Streaming API, and has read/write access to accounts and contacts.
	Each Force.com App Subscription license provides an additional 20 MB of data storage and 100 MB of file storage, regardless of the Salesforce edition.
Knowledge Only User	An organization can use this type of license to provide access to the Salesforce Knowledge app. This license provides access to the tabs: articles, article management, Chatter, Chatter files, home, profiles, reports, custom objects, and custom tabs.
Identity	Organizations can use this type of license to grant users access to identity features such as the App Launcher. This is included with all paid user licenses in Enterprise, Performance, and Unlimited Editions. Ten free Identity user licenses are included with each new Developer Edition.
Chatter Free	This license works for Performance, Enterprise, and Personal Edition users who don't have Salesforce license but want to access Salesforce Chatter. By using this license, users can access all the Chatter features but they can't access standard Salesforce objects.
	This license is cheaper than a Salesforce license so organizations use this license to save money.
Chatter External	This license type allows us to invite our customer into Chatter. This license has very limited Chatter access. Users can only see the groups they are invited to and can interact with members of that group.
	This license is cheaper than a Salesforce license so organizations use this license to save money.
Chatter Only	This license works with Performance, Enterprise, and Personal Edition users who don't have the Salesforce license and want to use Salesforce objects in addition to Salesforce Chatter.

License name	Description	
Work.com Only User	This license works with Performance, Enterprise, and Personal Edition users who don't have a Salesforce license and need access to Work.com.	
Company Community	This is an internal user license designed for users to access Force. com Light application custom objects, custom tabs, Chatter (people, groups, feeds, and files), and Community that includes a Site.com site.	
	Company Community users have read-only access to Salesforce Knowledge articles and limited access to cases in order to create and read their own cases. They can also:	
	 Access up to 10 custom objects and 10 custom tabs 	
	 Use content, ideas, and answers 	
	 Use activities, tasks, calendars, and events 	
	Have read-only access to accounts and contacts	

To view all the company information, a user must have the **View Setup and Configuration** permission and to make any changes in it, the **Customize Application** permission is required.



You can check the latest licenses available at https://help. salesforce.com/HTViewHelpDoc?id=users_understanding_ license_types.htm&language=en_US as the above mentioned license types are subject to change.

Multiple currencies

Let's start with an example. Sara Bareilles is the Salesforce administrator at Appiuss Inc. Her company has sales representatives across the globe and deals coming in equally from the American, Asia-Pacific, and Europe/Middle-East regions. Currently, only the USD currency is enabled for her organization, so the sales reps are finding it difficult to enter the right amount in their local currency.

Multi-currency is a Salesforce limited and advance feature. After enabling it, the sales reps enter the amount in the **Opportunity** field in their local currency. Organizations can use multiple currencies in opportunities, forecasts, reports, quotes, and other currency fields. The administrator can set the corporate currency that reflects the currency of the corporate headquarters. The administrator also maintains a list of active currencies and their conversion rates relative to the corporate currency.

So, Sara Bareilles decides to enable multiple currencies. She contacts Salesforce.com Support and has it enabled a few days later in her Sandbox.

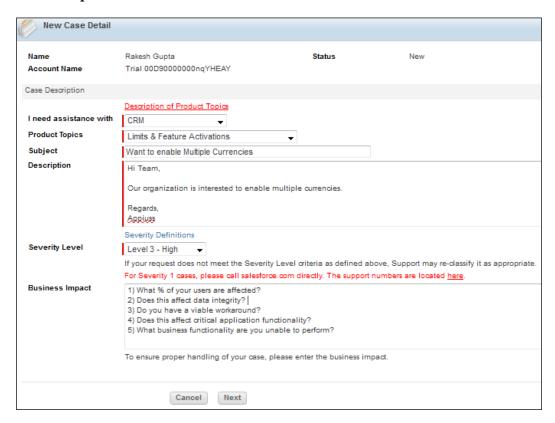
Enabling a single currency

In a single currency organization, you can set the organization-wide currency locale for your company but your Salesforce users cannot set individual currency locales.

Enabling multiple currencies

To enable multiple currencies in your organization, follow these instructions:

- 1. Click on the **Help and Training** link in the top-right corner of the page. This opens a new page in the window.
- 2. Click on **Contact Support** followed by the open a case icon.
- 3. Fill in the form as shown in the following screenshot and in the **Product Topics** field, select **Limits & Feature Activations**:



- 4. In the **Business Impact** area, give a proper reason for every question.
- 5. Click on **Next** and submit the case.
- 6. You will get an e-mail in which the administrator of the organization will have to provide the following details:
 - ° Organization ID
 - Default currency
 - Confirmation that you understand that multiple currencies can't be disabled once enabled
 - ° Confirmation that you are a system administrator authorized on behalf of your organization to request multi-currency enablement and that you consent to the lockout of this organization for a certain period of time, depending on your organization's data usage volume
- 7. Once you answer the e-mail, the multiple currencies feature will be enabled by Salesforce.com.

Adding a new currency

At any time, the system administrator can add a new currency to the organization. To do so, follow these steps:

- 1. Navigate to Setup | Administer | Company Profile | Manage Currencies.
- 2. Click on **Add New** to add a new currency. It will redirect you to a new window where you can add new currency to your organization.
- 3. To do this, you have to select **Currency Type**, **Conversion Rate** (find it from any exchange website), and **Decimal Places**:



Changing the corporate currency

At any time, the system administrator can change the corporate currency of the organization. To do this, follow these steps:

1. Navigate to Setup | Administer | Company Profile | Manage Currencies.



- 2. Click on Change Corporate.
- 3. It will redirect you to a new window where you can select a new corporate currency for your organization.



A new corporate currency dropdown shows only those currencies that are currently active for the organization.

Effects of enabling multi-currency

The following are the effects of enabling multi-currency:

- Multi-currency cannot be disabled once enabled.
- All records have a default currency stamped that you mentioned at the time of enabling it.
- Objects such as opportunities, opportunity products, opportunity product schedules, and campaign opportunities include fields that are multi-currency compatible, which allows a specific currency for the record. The main use of such fields is to specify the primary amount.
- After multi-currency is enabled, all currency fields show the ISO code before the field value, for example, \$50 is USD 50.
- Once the currency is added to the supportive currency list, it can't be removed from the administrator's currencies list, even when it is deactivated.
- Users can set their own personal default currency, which is known
 as the secondary currency. In reports (while running a report for the user),
 the primary default currency is shown as the organization's default
 corporate currency and the user's personal currency is shown as the
 secondary currency.

Fiscal year and its customization

A fiscal year or financial year is a period of time used to calculate annual (yearly) financial statements in businesses and other organizations. The system administrator can set the fiscal year for your organization. The fiscal year settings are used to report on the fiscal year timeline.

Salesforce supports two types of fiscal years:

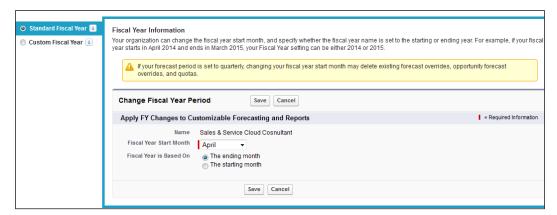
- Standard fiscal year
- Custom fiscal year

Standard fiscal year

Salesforce provides the Gregorian calendar as the standard fiscal year calendar by default. But this is not the same for every organization as some organizations use different calendars and need to change the fiscal year start month, for example, for the fiscal year starting in April, the standard fiscal year is used. Standard fiscal years can start on the first day of any month. Additionally, it can be defined whether the fiscal year is based on the start or end of the selected month.

To set up a standard fiscal year for your organization, follow these steps:

- 1. Navigate to Setup | Administer | Company Profile | Fiscal Year.
- 2. Select the option of Standard Fiscal Year.
- 3. Select the start month for the fiscal year.
- 4. Choose whether the fiscal year is defined based on the end or start of the month as shown in the following screenshot:



- Optionally, you can select **Apply to all Forecasts and Quotas** if you want to apply the new fiscal year settings to your existing forecasts and quotas. This option may or may not be available depending on your forecast settings.
- 6. Click on **Save**.

Custom fiscal year

The custom fiscal year option is used when the standard fiscal year does not meet the organization's requirements. To use the custom fiscal year, the system administrator has to enable it. Complex fiscal year structures can be achieved using the custom fiscal year option. Enabling custom fiscal years does not automatically define them. You must define all of your company's custom fiscal years so that they fit your company's calendar.

To set up a custom fiscal year for your organization, follow these steps:

- 1. Navigate to Setup | Administer | Company Profile | Fiscal Year.
- 2. Select the option of **Custom Fiscal Year**.
- 3. Select the checkbox next to the statement Yes, I understand the implications the custom fiscal year feature has on my organization and I want to enable it.
- 4. Click on Enable Custom Fiscal Years.
- 5. Click on OK.

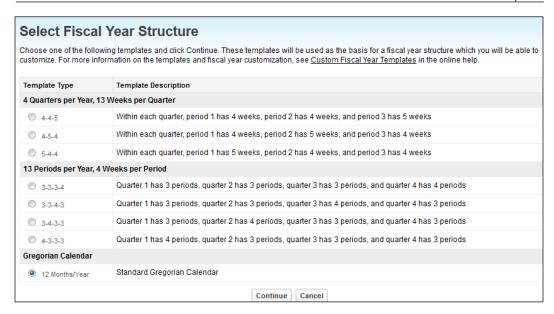


Enabling custom fiscal years is not reversible. After enabling custom fiscal years, you cannot revert to standard fiscal years.

Defining a new custom fiscal year

To define a new custom fiscal year for your organization, follow these steps:

- 1. Navigate to Setup | Administer | Company Profile | Fiscal Year.
- 2. Click on **New**. It will open a **Custom Fiscal Year Template** window to set up a new custom fiscal year:



- 3. In the template window, you can choose a template type based on your needs. Click on **Continue** and you are done.
- 4. The next step is to set the fiscal year start date. For this, enter the fiscal year name and choose the start day of the week. Here, you can reset the fiscal year structure as well.
- Click on Save.



Before enabling the custom fiscal years, make sure that you have exported any data related to the fiscal periods.

Business hours setup and its effect

Business hours are the hours of the day in which business is generally conducted. These are especially applicable for the customer support team to track the operating hours of the customer support. For your Salesforce organization, you can configure multiple business hours. Business hour settings apply to case-related information about escalation rules and case milestones in the entitlement processes.

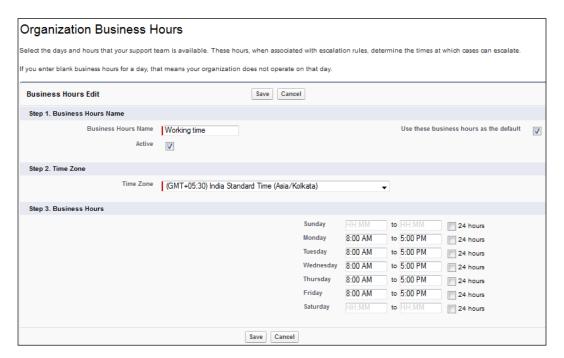
Once the business hours are set, they can be used to set the time at which a support team will be available to work on the case. Business hours can also be specified when making the escalation rules. Setting the business hours on the escalation rules, results in the case getting automatically updated and escalated when the escalation rules are within the time and location of the rule.

Let's assume that your organization's working hours are from 8:00 a.m. to 5:00 p.m. and a case is raised at 4:00 p.m. The escalation time for this case is 2 hours if the case is not resolved. So if the business hours are not set up for your organization, then the case will be escalated at 6:00 p.m. By default, business hours are set to 24 hours, seven days a week in the default time zone specified in your organization's profile.

Setting up the business hours and its effects

To set up the business hours for your organization, follow these steps:

- 1. Navigate to Setup | Administer | Company Profile | Business Hours.
- 2. Click on the **New Business Hour** button.



- 3. Enter data in the **Business Hours Name** field and select the **Active** checkbox to activate it. Optionally, select **Use these business hours as the default** to set the business hours as the default business hours on all new cases.
- 4. Select **Time Zone** and define the working hours from Sunday to Saturday (by default, the **24 hours** checkbox is selected next to each day, so deselect it and enter the business hours). You can leave the **Business Hours** field blank.



Salesforce automatically calculates daylight saving time for the time zones available for the business hours. It helps you to calculate the correct case age.

Holiday settings

Let's start with an example. Sara Bareilles is working as a support agent in a company. She is resolving an ample amount of cases per day, and the response time for every case is 3 hours. Now, she is worried because April 18 is a holiday for Good Friday and if cases come in on that day, they will be escalated to the manager.

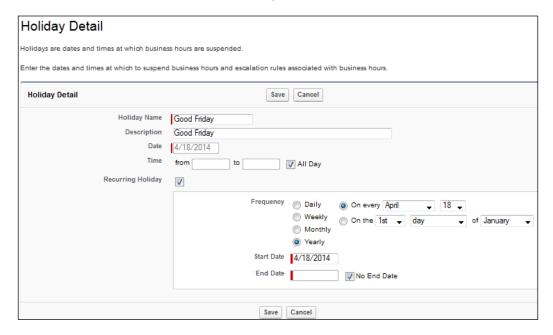
Holiday settings define that your organization is not working on that day. If some cases are raised on that day and waiting for a service agent response, Salesforce will not count that day as a working day and the case will not be escalated.

Setting up the holiday settings

To set up the holiday settings for your organization, follow these steps:

- 1. Navigate to Setup | Administer | Company Profile | Holidays.
- Click on the New button.

3. Enter data in the **Holiday Name**, **Description**, **Date**, and **Time** fields. You can set recurring holidays as well. To do that, select the **Recurring Holiday** checkbox and fill in the **Frequency**, **Start Date**, and **End Date** fields:



4. Click on **Save**.

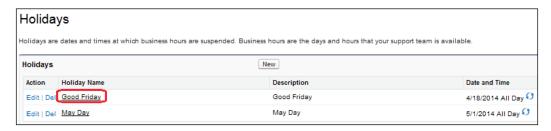
Associating holidays with business hours

You can associate holidays with business hours so that Salesforce can suspend any escalation rules associated with it. There are two ways to associate business hours and holidays.

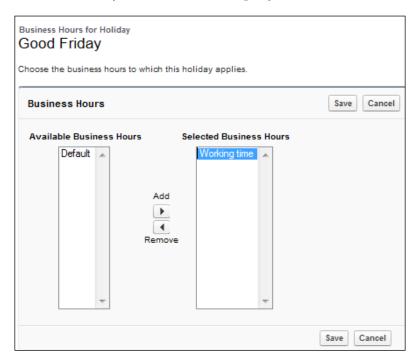
Method 1 – associate business hours with holidays

To associate business hours with holidays, follow these steps:

- 1. Navigate to Setup | Administer | Company Profile | Holidays.
- 2. Click on the holiday from the **Holidays** list.



- 3. It will open the **Holidays** detail page.
- 4. Click on **Add/Remove** from the **Business Hours** list.
- 5. In addition, add any **Business Hours** as per your needs.

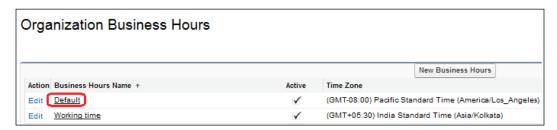


It will associate one holiday with multiple business hours.

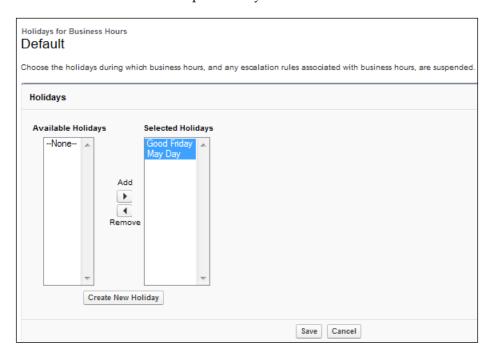
Method 2 – associate holidays with business hours

Another way to associate holidays with business hours is from the business hours instead. To associate holidays with business hours, follow these steps:

- 1. Navigate to Setup | Administer | Company Profile | Business hours.
- 2. Click on the **Business Hours** option from the available list:



- 3. It will open Business Hours detail page.
- 4. From the **Holidays** list, click on the **Add/Remove** button.
- 5. It will redirect you to the next screen where you can associate the current business hours with multiple holidays:



This will associate multiple holidays with one business hour.

Language settings and its importance

As Salesforce is being used across the globe and we all use different languages to communicate, Salesforce supports multiple languages. The Salesforce web user interface, Salesforce for Outlook, Connect for Outlook, Connect Offline, and Connect for Office are all available in various languages.

The Salesforce web user interface supports two language settings.

Personal settings

Let's start with an example. Robby Williams is a new hire from Russia. The default organization language is set to English, which means all the text and online help are displayed to all the new users in English. Robby Williams would like to change his complete user interface to Russian.

Users can change the default language to their local language to display the Salesforce text, images, buttons, and online help.

To change to your personal language, follow these steps:

- 1. Navigate to Name | My Setting | Personal | Language & Time zone.
- 2. Then, select the language from the Language drop-down list:



You can find more information about the language Salesforce supports as the standard language in the information box.



If you are not able to find your preferred language, then contact your system administrator to enable it. In the preceding example, the system administrator enabled the English, Deutsch, Español, François, and Italiano languages for the organization so that users can get these options under the **Language** drop-down list.

Organization's default language settings

A system administrator can enable multiple languages for your Salesforce organization. This means users have the option to select their preferred language from the available list.

Salesforce offers three levels of language support, as follows:

- Fully supported languages
- End user languages
- Platform-only languages

Fully supported languages

Fully supported languages, such as Thai, Russian, English, or Danish, are the ones where the user functionality and help pages in the application are completely translated into these languages.



The fully-supported languages list includes Chinese (simplified), Chinese (traditional), Danish, Dutch, English, Finnish, French, German, Italian, Japanese, Korean, Portuguese (Brazil), Russian, Spanish, Swedish, and Thai. Even though the Salesforce interface is completely translated to Thai, the help page remains in English.

End user languages

End user languages are useful when you are working in a multilingual organization where you speak a language that is different than your headquarters. End user languages are used by users who would like to access the app in that language, but do not want to access the **Setup** menu.

Let's start with an example. A company has its headquarters in a French-speaking country, but that company has non-admin employees in other countries that would prefer to use the app in a language supported as an EUL. As they do not want to access the **Setup** menu and help pages, the EUL settings provide sufficient translations out of the box to suit their needs.

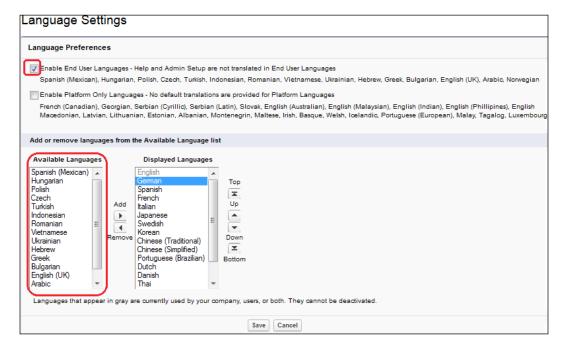


The end user languages list includes Arabic, Bulgarian, Czech, English (U.K.), Greek, Spanish (Mexico), Hebrew, Hungarian, Indonesian, Norwegian, Polish, Romanian, Turkish, Ukrainian, and Vietnamese.

Enabling an end user language

To enable an end user language for your organization, follow these steps:

- 1. Navigate to Setup | Administer | Company Profile | Language Settings.
- 2. From the Language Preferences section, select the Enable End User Languages checkbox to enable it:



- 3. Then, it will add all the end user languages to the available language multi-select picklist.
- 4. Click on Save.

Platform-only languages

Platform-only languages are used to localize the custom functionality (apps) built on the Salesforce Platform. The platform-only languages allow organizations to provide their own translations via the translation workbench for languages that Salesforce doesn't provide any translations for.

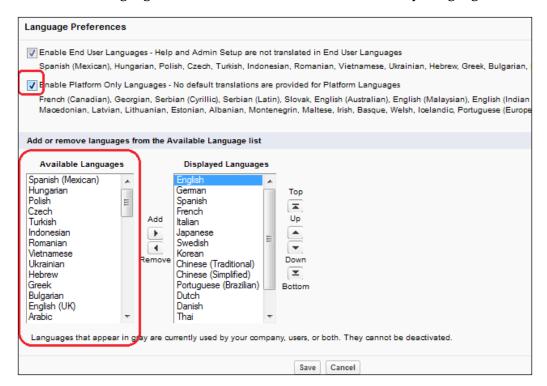


The platform-only languages list includes Albanian, Armenian, Basque, Bosnian, Croatian, English (Australia), English (Canada), English (India), English (Malaysia), English (Philippines), Estonian, French (Canada), Georgian, Hindi, Icelandic, Irish, Latvian, Lithuanian, Luxembourgish, Macedonian, Malay, Maltese, Moldovan, Montenegrin, Portuguese (European), Romansh, Serbian (Cyrillic), Serbian (Latin), Slovak, Slovenian, Tagalog, Urdu, and Welsh.

Enabling the platform-only languages

To enable the platform-only languages for your organization, follow these steps:

- 1. Navigate to Setup | Administer | Company Profile | Language Settings.
- 2. From Language Preferences, select Enable Platform Only Languages:



- 3. This will add all the end user languages to the available language multiselect picklist.
- 4. Click on Save.

Once you enable the platform-only language, Salesforce will enable the end user language automatically.



What happens when the system administrator changes the organization's default language from English to Russian if the user's personal language preference is already set as Russian?

The user will still see Salesforce in Russian. If a personal preference is not set, then Salesforce will automatically change everything from English to Russian.

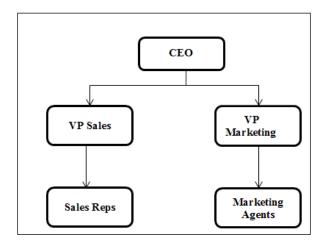
The significance of roles and profiles

In this section, we will discuss roles, profiles, and their significance in Salesforce.

Significance of the role hierarchy

By using roles in Salesforce, you can control the data/records access and organization reports. In simpler terms, you can use it to control record-level access in Salesforce. It describes how roles connect to each other. It may or may not be similar to your organization hierarchy. A role can have one, more than one, or even no users assigned to it. It is a good practice to ensure that every user is assigned a role when first added to the system.

The users who are higher in the role hierarchy will be able to see the records of people below them. Users who share the same role or are at the same level (**VP Sales** and **VP Marketing**) cannot access each other's records:



In the preceding image, the CEO can see all the organization records as they are at the top of the role hierarchy. At the same time, VP Sales and VP Marketing can't see each other's records even though both are at the same level, but VP Sales can access Sales Reps records and VP Marketing can access Marketing Agents records. Sales Reps and Marketing Agents can see only their records as these roles are lower in the role hierarchy. Users at any given role level can view, edit, and report all the data owned by or shared with users below them in the role hierarchy.

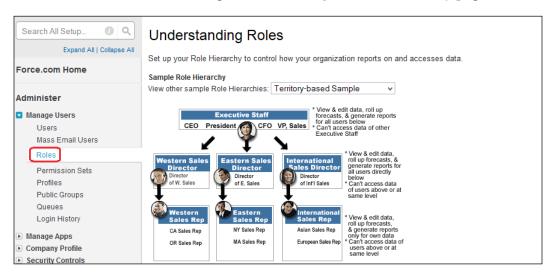


In the preceding example, it is assumed that **Organization-Wide Default** (**OWD**) is private for objects. We will discuss more about OWD in *Chapter 3, Make your Salesforce Data Secure – Security Settings in Salesforce*.

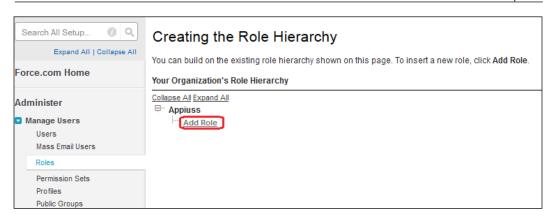
Creating the role hierarchy for your organization

To create the role hierarchy for your organization, follow these steps:

- 1. Navigate to Setup | Administer | Manage Users | Roles.
- 2. Click on **Set up Roles** to go to the **Creating the Role Hierarchy** page:

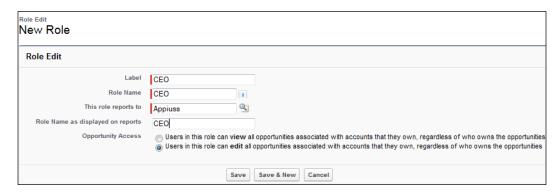


Click on Add Role to create a new role:



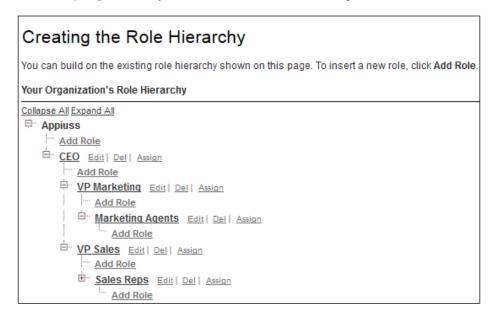
- 4. It will redirect us to a new page, where we have to enter details in a few fields to create the new role:
 - ° **Label**: This will be displayed in the user interface
 - Role Name: This unique name will be used by the API and packages managed
 - This role reports to: This is the role above a specific role in the hierarchy (like in case of VP Sales – the value in this field would be CEO)
 - Role Name as displayed on reports: This is the role name that appears on reports
 - Opportunity Access: This field describes whether users can access other user's opportunities, which are associated with accounts that the users own

This field is not visible if your organization's sharing model for opportunities is public read/write:



5. Click on **Save**.

Repeat the preceding process and create the organization role hierarchy. You can create the same role hierarchy we used to describe the role hierarchy under the **Role Hierarchy** topic. Finally, it will look like the following screenshot:





Whenever you want to delete any role, make sure that you start the deletion from its child roles. If users do not have any role assigned to their user record, they can only view their own records.

Profiles

Profiles are a way to customize the Salesforce overall experience of a user. Profiles are used to decide the data security in a Salesforce organization by granting object-level permissions and Field-Level Security that decide whether the fields need to be shown to a specific set of users. Profiles have certain rules or settings that we can set in order to grant or restrict a set of user permissions. Roles decide data/record-level access in Salesforce (that is, the records that you can access), and profiles decide what users can see in those records (that is, fields, related lists, and apps).

Let's start with an example. In the roles section, we created a new role for the organization. Sagar Pareek is the system administrator and he wants to maintain data visibility based upon the said role, but in Salesforce, roles can only maintain data/record-level access, so he has to go with the profile feature.

Types of profiles in Salesforce

There are two types of profiles in Salesforce. These are:

- **Standard**: These are profiles that come with your Salesforce organization. You cannot delete them.
- **Custom**: These are profiles that we make by cloning the existing Salesforce standard profiles.



We can delete a Salesforce custom profile only if users are not assigned to that particular profile.

Different types of standard profiles

The following table shows a list of the standard profiles available in Salesforce:

Profile	Description
System administrator	System administrators have full access to Salesforce. They are allowed to configure and customize the application.
Standard Platform User	These users are allowed to use custom apps developed by an organization or installed from AppExchange and the main functionality of the platform.
Standard Platform One App User	Users with this profile can access one custom app developed in your organization or the one installed from AppExchange. The custom app is limited to five tabs. In addition, they can use the core platform functionalities, such as accounts, contacts, reports, dashboards, and custom tabs.
Standard User	Users with this profile are allowed to create and edit most major types of records, run reports, and view the organization's setup. They can view, but not manage, campaigns. They can also create, but not review, solutions. They can edit their personal quota and override forecasts.
Partner User	Users are only allowed to log in from a partner portal.

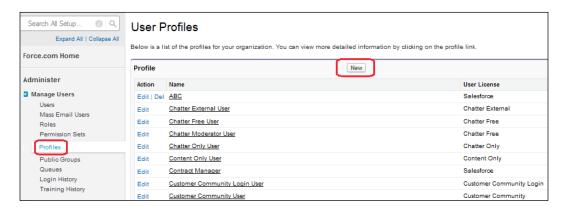
Profile	Description
Customer Portal User	Users can only log in via a Customer Portal. They can view and edit data that they directly own or data owned by or shared with users below them in the Customer Portal role hierarchy. They can view and edit cases where they are listed in the Contact Name field.
Customer Portal Manager	Users can log in only from a Customer Portal. They can view and edit data that they directly own or data owned by or shared with users below them in the Customer Portal role hierarchy. They can view and edit cases where they are listed in the Contact Name field.
Marketing User	Users can manage campaigns, import leads, create letterheads, create HTML e-mail templates, manage public documents, and update the campaign history via the import wizards. They can also act as a Standard User.
Contract Manager	Users are allowed to create, edit, activate, and approve contracts. This profile can also delete contracts as long as they are not activated. Users can also edit their personal quota and override forecasts.
Chatter Only User	Users are only allowed to log in to Chatter. They are allowed access to all standard Chatter features: people, profiles, groups, and files. Additionally, they can view Salesforce accounts and contacts, use Salesforce CRM Content, Ideas, and Answers, and modify up to ten custom objects.
Chatter Free User	Users are only allowed to log in to Chatter. They can access all standard Chatter features: people, profiles, groups, and files.
	This is only available with the Chatter Free user license.
Chatter External User	Users are only allowed to log in to Chatter and access groups they've been invited to and interact with members of those groups. This is only available with the Chatter External user license.
Chatter Moderator User	Users are only allowed to log in to Chatter and are able to moderate posts such as edit and delete. They can access all standard Chatter features: people, profiles, groups, and files.

Profile	Description
Site.com Only User	Users can only log in to the Site.com app.
High Volume Customer Portal and Authenticated Website (both user licenses are high-volume portal users)	Users can only log in from a customer portal.
Solution Manager	Users with this profile are allowed to review and publish solutions. They can also act as a Standard User.
Read Only	Users with this profile can view all the records, but cannot edit them.

Creating a custom profile

To create a custom profile, follow these steps:

- 1. Navigate to Setup | Administer | Manage Users | Profiles.
- 2. Click on New.

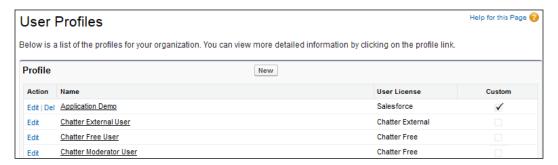


3. Select a standard profile from the list. You can't create custom profiles from scratch, so you have to clone one from a standard profile and enter the name in the **Profile Name** field as you want. A user license will autopopulate in front of the **User License** field.



4. Click on Save.

To distinguish between standard and custom profiles, make sure that the **Custom** checkbox in front of each profile is selected.



Settings available under profile

Profile provides the following settings to the users:

- Console Settings: This option allows you to define the console settings for the profile
- Page Layout: This option allows you to assign page layouts for standard and custom objects

- **Field-Level Security**: This option helps you to define the fields within objects that users can view and edit
- **Custom App Settings**: This option allows you to define the custom apps that can be accessed by users
- Connected App Access: This option gives you access related to the connected apps
- Tab Settings: This option allows you to define the tabs that users can view
- Record Type Settings: This option lets you manage record-type settings for standard and custom objects
- Administrative and General User Permissions: This option provides permissions that allow users to manage the system and apps within it
- Standard and Custom Object Permissions: This option allows you to manage object permissions that allow users to create, read, edit, and delete records
- **Desktop Integration Clients**: This option defines the desktop client that users can access
- **Login Hours**: These are the hours in which specific profile users can log in to Salesforce
- **Login IP Ranges**: This is the IP range from which the user permits access to Salesforce
- Enabled Apex Class and Visualforce Pages Access: This defines the Apex classes and Visualforce pages that users can access

Permission sets

In Salesforce, users have only one profile, but sometimes you're required to assign more than one profile to users based upon business requirements. A permission set is a group of settings and permissions that gives users access to various apps and functions. The settings and permissions in permission sets are similar to those in profiles, but it extends users' functional access without changing their profiles.

Let's start with an example. Sara Bareilles (Profile - TL) is working as a team lead in Appiuss and her manager Rakesh Gupta (Profile - PM) is going on leave for a week, so Sara is responsible for Rakesh Gupta's work. As both of them have different profiles, Sara Bareilles does not have the access that Rakesh Gupta has; in this case, you can use permission sets.

Settings available under permission sets

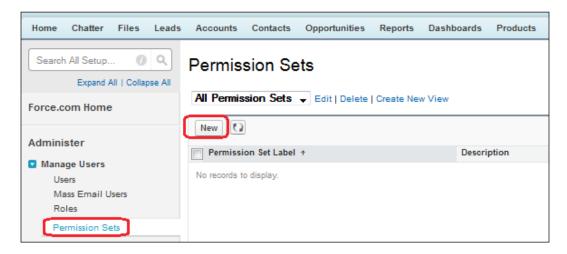
Through permission sets, you can manage access for the following settings:

- **Assigned apps**: This allows you to specify the apps that are visible to users
- Object settings: These include the following:
 - Tab settings
 - Record type settings
 - Object permissions
 - Field permissions
- **App permissions**: This helps you to define access for permissions to perform app-specific actions
- **Apex class and Visualforce page access**: This defines the Apex classes and Visualforce pages that users can access
- **System permissions**: This allows you to define permissions to perform actions that apply across apps such as **Modify All Data**
- **Service providers**: This is only available if you've enabled Salesforce as an identity provider

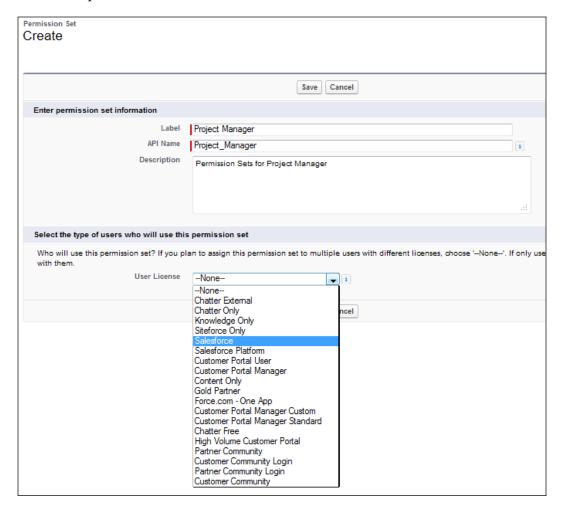
Creating permission sets

To create permission sets, follow these steps:

- 1. Navigate to Setup | Administer | Manage Users | Permission Sets.
- 2. Click on New.



3. A new page will open. To create permission sets, enter data in the **Label**, **API Name**, and **Description** fields, and select **User License** from the drop-down list.



4. Click on Save.

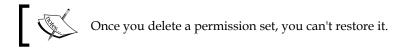
Deleting permission sets

To delete permission sets, follow these steps:

- 1. Navigate to Setup | Administer | Manage Users | Permission Sets.
- 2. Identify the permission sets that you want to delete and click on the **Del** link.



3. You will be asked for confirmation. Click on **OK** if you want to delete it and Salesforce will delete the permission set.



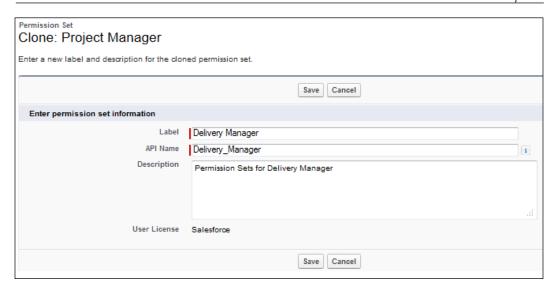
Cloning permission sets

To clone permission sets, follow these steps:

- 1. Navigate to Setup | Administer | Manage Users | Permission Sets.
- 2. Identify the permission sets that you want to clone.
- 3. Click on the **Clone** link.



4. You will be redirected to a new page where you have to enter data in the **Label**, **API Name**, and **Description** fields.



5. Click on Save.

Setting up the users

To get more out of Salesforce, we have to allow our business users to access Salesforce. For this, a system administrator has to set up his or her user account. Before setting up a user account, the system administrator needs to gather basic information about users and their preferences to fill out a few mandatory fields. These fields are as follows:

- Last Name: This is the user's last name.
- Alias Name: Salesforce automatically creates an alias name for you. It is
 the combination of the first character of your first name and the last four
 characters of your last name.
- **Email**: This is the e-mail address of the user (it is used by Salesforce to send notifications).
- **Username**: This is in the format of an e-mail address.
- **Nickname**: This is used by Salesforce in the online community.
- **User License**: This is based upon the business requirement. Also, you can select the user license.
- Profile: This is dependent on the user license. When you select the user license, it will also give you the option to select corresponding profiles based upon that user license.

- **Email Encoding**: This will define a character set encoding for outbound e-mails sent by the user from Salesforce.
- **Time Zone**: This allows you to specify the user's local time zone.
- Locale: This allows you to define the locale for the user.
- **Language**: This lets you define the language in which the user wants to operate in Salesforce.
- **Currency**: This allows you to set the user's preferred currency.



This **Currency** field will be visible only when multicurrency is enabled in your organization.

• **Receive Approval Request Emails**: This allows users to select when they want to receive e-mails for approval requests.

There are various ways to set up users in Salesforce. The following are the possible ways through which you can create users:

- User interface
- Data loader
- API call

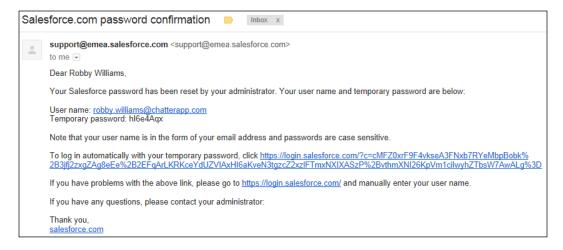
To create a user from the user interface, follow these steps:

- 1. Navigate to **Setup | Administer | Manage Users | Users**.
- 2. Click on New User.



- 3. It will open a new page where you have to enter all the required details, and then select **Generate new password** and tick the **Notify the user immediately** checkbox so that Salesforce can send an e-mail notification to the user with the link to activate his or her account and set up a new password.
- 4. Click on **Save**.

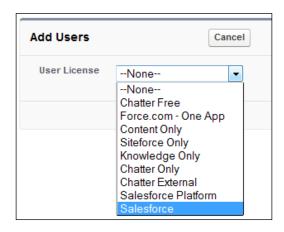
5. The user will be notified, as shown in the following screenshot, and can click on the user activation link to activate the account and move on to set the new password:



Adding multiple users

Sometimes it may be necessary to create several users, and if you try to create users one by one, it will take a long time. Here, you can use Salesforce's add multiple users feature. You can add up to 10 users at a time. To do this, follow these steps:

- 1. Navigate to Setup | Administer | Manage Users | Users.
- 2. Click on Add Multiple Users.
- 3. It will redirect you to a new page where you have to select the **User License** type:



4. You will have to enter a few details such as the first name, last name, e-mail (user name), profile, and role as shown in the following screenshot:



- 5. Once done, select Generate passwords and notify user via email.
- 6. Click on Save.
- 7. You can add more users by clicking on the **Add More Users** button.

We will go into more detail about how to set up users through the data loader in *Chapter 7, Concepts of Data Management*.

Locking and unlocking users

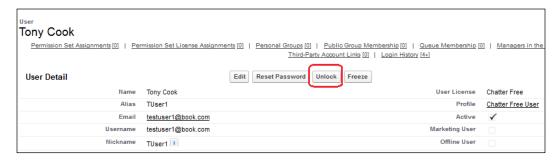
Let's start with an example. Tony Cook is a sales manager at Appiuss. He is trying to log in to Salesforce with his credentials but has forgotten his password and exceeded the maximum invalid login attempts set by his organization's password policies. As a result, his account gets locked. You can go to the user's detail page and in the login history list and check when the password lockout happened under **Status**.



Unlocking a user

To unlock a user, follow these steps:

- 1. Navigate to Setup | Administer | Manage Users | Users.
- 2. Navigate to the **User** page. In this case, **Tony Cook**, and click on the full name to go to the user's detail page:



- 3. Click on **Unlock** to unlock the user as shown in the preceding screenshot.
- 4. Now reset the password to send a new password to the user and Salesforce will send an e-mail notification to the user's e-mail address.

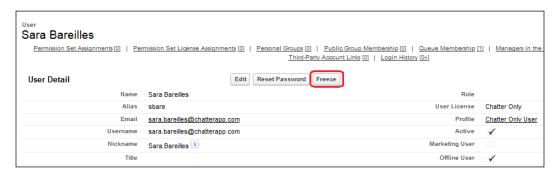
You can do this from both the Salesforce UI and SalesforceA mobile app.

Freezing a user's account

In the Winter '14 release, Salesforce launched a new feature called Freeze user's account. Let's start with an example. In this case, Sara Bareilles is working as a sales manager in Appiuss. She is referenced in many workflows and approval process e-mail notifications. Today is her last day at Appiuss, so as per the company policy, the system administrator has to deactivate her user account after business hours. However, as she is referenced in many places, it will take time to deactivate her user account. First, the system administrator has to remove her user reference from everywhere. In this case, it's better to freeze her user account so that she can't access her account anymore.

To freeze a user's account, follow these steps:

- 1. Navigate to Setup | Administer | Manage Users | Users.
- 2. Navigate to the user. In this case, **Sara Bareilles**, and click on the full name to go to the user's detail page:



- 3. Click on the **Freeze** button to freeze the user account.
- 4. After freezing the user account, the user will not be able to access Salesforce, including resetting his or her password by using the **Forgot Password** feature.



Freezing user accounts doesn't make a user's licenses available for use in your organization. You must deactivate user accounts to make a user's licenses available.

Benefits of the login history

By using the login history feature, system administrators can track the user login information for the last 20 logins. The login history shows the following information:

- Login time
- Source IP
- Login Type
- Status (for example, success, failed, invalid password, and user is frozen)
- Browse Application

 Login URLs (for example, http://login.salesforce.com, http://help.salesforce.com, http://success.salesforce.com, and http://developer.salesforce.com)



If you want to download the last six months of the login history, you can download it as shown in the preceding screenshot. You can use the login history for use cases such as a user notifying the system administrator that they cannot log in to Salesforce. The best practice in this case is to go to the user detail page and investigate the issue via the login history.



If the username entered by the user is incorrect, then the issue will not come under the login history.

Groups and their uses

Groups are a set of users. In a group, you can add individual users, other groups, users in a particular group or territory, roles, and subordinates. There are two types of groups in Salesforce:

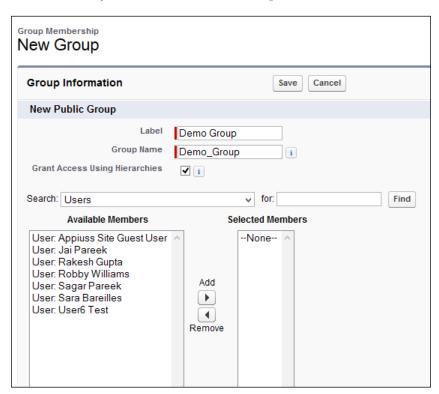
- Public group: A system administrator is able to create public groups
- Private group: Individual users can create groups for their own personal use

Creating a public group

To create a public group, follow these steps:

- 1. Navigate to Setup | Administer | Manage Users | Public Groups.
- Click on the New button.
- 3. Fill the details in the **Label** and **Group Name** fields, and select the **Grant access using hierarchies** checkbox if you want to give this group's access to a user who is on top in the hierarchy.

4. From the **Search** drop-down list, you can select the **Users**, **Public Group**, **Role**, and finally **Role and Subordinates** options:



5. Click on Save.

Creating a personal group

To create a personal group, follow these steps:

- 1. Select the **Name** tab and click on **My Settings**.
- 2. From the left-hand side pane, select the **Personal** tab and click on **My Groups**.
- 3. Click on **New Group**.
- 4. Fill the information like we did for the public group in the last topic.
- 5. Click on **Save**.

We can use groups in the following ways:

- To use public groups in sharing rule to share records
- To share your records with other users
- To specify that you want to synchronize contacts owned by others users
- To add multiple users to a Salesforce CRM content library
- To assign users to specific actions in Salesforce Knowledge

Queues and their significance

In Salesforce, the record's owner will be a user or a queue for lead, case, service contract, and custom objects. Once the records are placed in a queue manually or through an automatic case or lead assignment rule, they remain there until they are assigned to a user or taken by one of the queue members. Any queue member or users above the records in the role hierarchy can take ownership of them in a queue. All the users in a queue have the same access to a record.

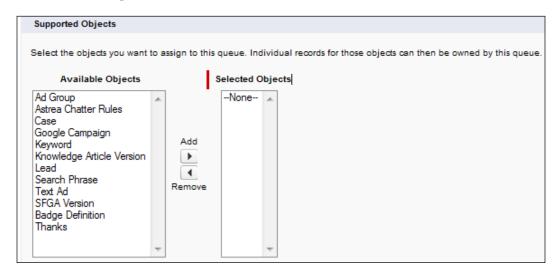
Let's start with an example where an organization is using Web-to-Lead to capture leads from their website. Now the organization wants to assign the lead of a particular region to the local marketing reps, so in this case, you can use a queue.

Creating a queue

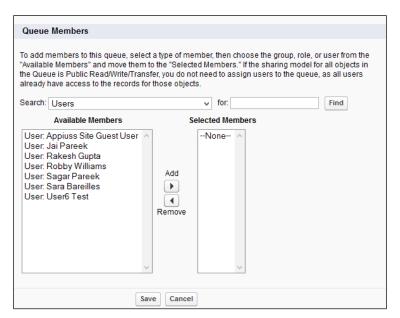
To create a queue, follow these steps:

- 1. Navigate to Setup | Administer | Manage Users | Queues.
- 2. Click on New.
- 3. Enter the necessary details in the Label, Queue Name, and Queue email address fields and then select Send Email to Members.

4. Select the object from the **Available Objects** pane that you want to create a queue for.



5. Select the queue members from the **Search** dropdown. You can select the **User**, **Public Group**, **Role**, and **Role and Subordinates** options.



6. Click on Save.

Add an e-mail address to the **Queue Email** field and Salesforce triggers an e-mail notification when new records are placed in the queue. You can use an individual user's e-mail address or a distribution list.

Leave the **Queue Email** field blank and Salesforce will send notification e-mails to all the queue members individually when new records are placed in the queue.

If we enter an e-mail address into the **Queue Email** field and check **Send Email to Members**, Salesforce will send an e-mail notification to all the queue members and the addresses in **Queue Email** individually when new records are placed in the queue.

Personal setup

Personal setup allows users to review their personal information registered with Salesforce. Here, a user is allowed certain facilities. They are explained in the following sections.

Editing personal information

You can edit the existing personal information registered with Salesforce, such as **First Name**, **Last Name**, **Manager**, **Email address**, and **Work information**. If you change your e-mail address, a confirmation message will be sent to the new address. You must click on the link provided in that message for the new e-mail address to be confirmed. This process ensures system security.

To do this, follow these steps:

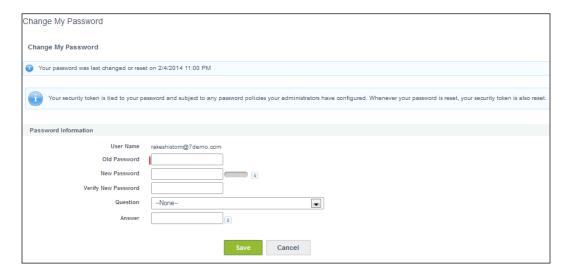
- 1. Select the **Name** tab and click on **My Settings**.
- 2. From the left-hand side pane, select the **Personal** tab and click on **Personal Information**.
- 3. Edit and update your personal information.
- Once done, click on Save.

Changing the password

To change your password, simply follow these steps:

- 1. Select the **Name** tab and click on **My Settings**.
- 2. From the left-hand side pane, select the **Personal** tab and click on **Change My Password**.

- 3. Enter your old password, then simply enter your new password and select the security question and answer.
- 4. Click on Save.



You will get a new security token via e-mail.

Resetting the security token

If you forget the security token or wish to generate a new one, follow these steps:

- 1. Select the **Name** tab and click on **My Settings**.
- 2. From the left-hand side pane, select the **Personal** tab and click on **Reset My Security Token**.
- 3. Salesforce will send an e-mail notification to you with a new security token.

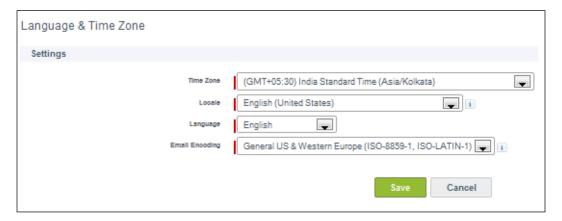


A user needs a security token when they are trying to access Salesforce from API tools, such as data loader and IDE.

Language and time zone setup

If you want to change your language and time zone settings, follow these steps:

- 1. Select the **Name** tab and click on **My Settings**.
- 2. From the left-hand side pane, select the **Personal** tab and click on **Language** & **Time Zone**.
- 3. When you're done, click on **Save**.



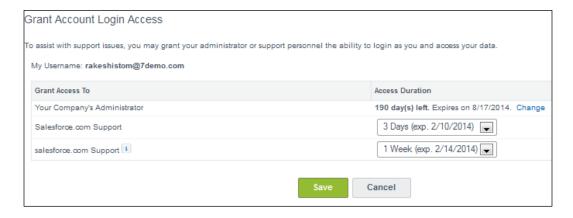
Grant account login access

By using this feature, users may grant login access to system administrators or support personnel. This is required when system administrators assist with support issues and want to check potential issues with a user's login.

To grant login access, follow these steps:

- 1. Select the **Name** tab and click on **My Settings**.
- 2. From the left-hand side pane, select the **Personal** tab and click on **Grant Account Login Access**.
- 3. Select the duration for **Salesforce.com Support**.

4. Click on Save.



When the **Access Duration** is over, Salesforce automatically removes the login access from Salesforce.com support.

Checking connections

When you log in for the first time through connected apps, Salesforce will ask you to enter a verification code. After that, Salesforce will save that IP address so that the next time when you log in from the same IP address, Salesforce won't ask you to enter any verification code.

To check your connections, simply follow these steps:

- 1. Select the **Name** tab and click on **My Settings**.
- 2. Select the **Personal** tab and click on **Connections**.
- 3. To revoke access, simply click on the **Revoke** link.



The following aspects are covered in this section:

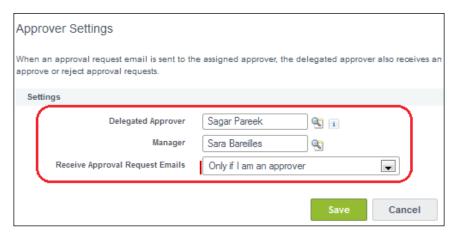
- OAuth connected apps: This section shows us the apps that we've authorized to log in. Here, the information shown is Connection Created Date, Last Used, Application, Use Count, and Actions. If we want to revoke the access for any of the connections, we can click on the Revoke link before the connection.
- **Third-party account links**: This section shows the third-party accounts you are allowed access to in order to log in.

Approver settings

Approver settings can be used to opt out of receiving e-mail notifications for approval or to delegate an approver on our behalf.

To configure the approver settings, follow these steps:

- 1. Select the **Name** tab and click on **My Settings**.
- 2. Select the **Personal** tab and click on **Approver Settings**.
- 3. Select your **Delegated Approver** (except a group or queue).
- 4. Select your **Manager**.
- 5. Select any of the options from the drop-down list next to **Receive Approval Request Emails**, as shown in the following screenshot:



- 6. We can set any of the following options regarding e-mail notifications:
 - ° If I am an approver or delegated approver
 - ° Only if I am an approver
 - ° Only if I am a delegated approver
 - Never



When an approval request e-mail is sent to the assigned approver, the delegated approver also receives an e-mail notification that there is an approval request to review. Delegated approvers can't reassign approval requests; they can only approve or reject the approval.

7. Click on Save.

Summary

In this chapter, we learned about customization guidelines in order to set up our organization's role hierarchy in Salesforce. We discussed profiles in order to restrict user access to certain features available in Salesforce and for data availability. We then went into detail about how user management can be done in Salesforce, and how an individual user can access his or her information. Finally, we discussed the significance of public groups and queues, and how record ownership can be managed in Salesforce.

In the next chapter, we will go through the various concepts related to different security modules available in Salesforce.

Making Your Salesforce Data Secure – Security Settings in Salesforce

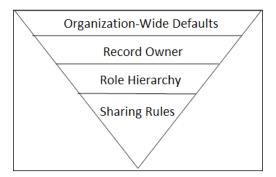
In the previous chapter, we discussed the company's profile management, role, and profile permission sets. We also discussed the user management personal settings in Salesforce. In this chapter, we will discuss **Organization-Wide Default (OWD)** and various ways to share records. We will also discuss the various security settings in Salesforce. The following topics will be covered in this chapter:

- Concepts of OWD
- The sharing rule
- Field-Level Security and its effect on data visibility
- Setting up password polices
- Two-factor authentication in Salesforce
- Session setting and its effects on users
- Network access securing your organization data
- Removing activated IP activations
- Setting up login access policies
- Single sign-on settings
- Authentication providers
- View Setup Audit Trail
- Expire all passwords

- Concepts of delegated administration
- Remote site settings
- HTML documents and attachments settings
- Portal health check

Concepts of OWD

Organization-Wide Default is also known as OWD. This is the base-level sharing and setting of objects in your organization. By using this, you can secure your data so that other users can't access data that they don't have access to. The following diagram shows the basic database security in Salesforce. In this, OWD plays a key role.



It's a base-level object setting in the organization, and you can't go below this. So here, we will discuss OWD in Salesforce.

Let's start with an example. Sagar Pareek is the system administrator in Appiuss. His manager Sara Barellies told him that the user who has created or owns the account records as well as the users that are higher in the role hierarchy can access the records.

Here, you have to think first about OWD because it is the basic thing to restrict object-level access in Salesforce. To achieve this, Sagar Pareek has to set Organization-Wide Default for the account object to private.

Setting up OWD

To change or update OWD for your organization, follow these steps:

- 1. Navigate to Setup | Administer | Security Controls | Sharing Settings.
- 2. From the **Manage sharing settings for** drop-down menu, select the object for which you want to change OWD.



- 3. Click on Edit.
- 4. From the **Default Access** drop-down menu, select an access as per your business needs.
- 5. For the preceding scenario, select **Private** to grant access to users who are at a high position in the role hierarchy, by selecting **Grant access using hierarchy**. For standard objects, it is automatically selected, and for custom objects, you have the option to select it.
- 6. Click on Save.

The following table describes the various types of OWD access and their respective description:

OWD access	Description
Private	Only the owner of the records and the higher users in the role hierarchy are able to access and report on the records.
Public read only	All users can view the records, but only the owners and the users higher in the role hierarchy can edit them.
Public read/write	All users can view, edit, and report on all records.
Public read/write/ transfer	All users can view, edit, transfer, and report on all records. This is only available for case and lead objects.
Controlled by parent	This says that access on the child object's records is controlled by the parent.
Public full access	This is available for campaigns. In this, all users can view, edit, transfer, and report on all records.

You can assign this access to campaigns, accounts, cases, contacts, contracts, leads, opportunities, users, and custom objects. This feature is only available for Professional, Enterprise, Unlimited, Performance, Developer, and Database Editions.

Basic OWD settings for objects

Whenever you buy your Salesforce Instance, it comes with the predefined OWD settings for standard objects. You can change them anytime by following the path **Setup | Administer | Security Controls | Sharing Settings**. The following table describes the default access to objects:

Object	Default access
Account	Public read/write
Activity	Private
Asset	Public read/write
Campaign	Public full access
Case	Public read/write transfer
Contact	Controlled by parent (that is, account)
Contract	Public read/write
Custom Object	Public read/write
Lead	Public read/write transfer
Opportunity	Public read only
Users	Public read only and private for external users

We will discuss more about the objects mentioned in the preceding table in *Chapter 5, CRM Functions and Streamlining Business Requirements*.

Let's continue with another example. Sagar Pareek is the system administrator in Appiuss. His manager Sara Barellies told him that only the users who created the record for the demo object can access the records, and no one else can have the power to view/edit/delete it.

To do this, you have to change OWD for a demo object to private, and don't select **Grant Access Using Hierarchy**.



When you select the **Grant Access Using Hierarchy** field, it provides access to people who are above in the role hierarchy.

Sharing Rule

To open the record-level access for a group of users, roles, or roles and subordinates beyond OWD, you can use Sharing Rule. Sharing Rule is used for open access; you can't use Sharing Rule to restrict access.

Let's start with an example where Sagar Pareek is the system administrator in Appiuss. His manager Sara Barellies wants every user in the organization to be able to view the account records but only a group of users (all the users do not belong to the same role or have the same profile) can edit it.

To solve the preceding business requirement, you have to follow these steps:

1. First, change the OWD account to **Public Read Only** by following the path **Setup** | **Administer** | **Security Controls** | **Sharing Settings**, so all users from the organization can view the account records.

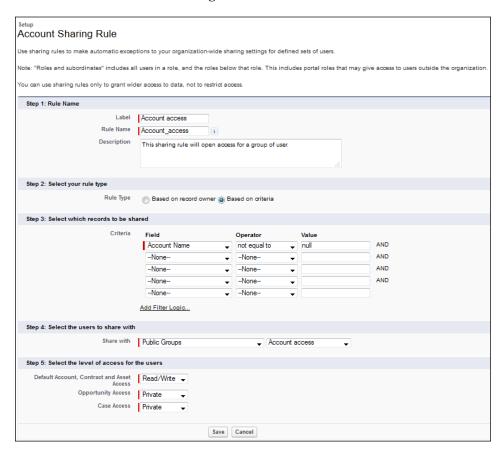


- 2. Now, create a public group Account access and add users as per the business requirement. To create a public group, follow the path Name | Setup | Administration Setup | Manage Users | Public Groups.
- 3. Finally, you have to create a sharing rule. To create sharing rules, follow the path **Setup** | **Administer** | **Security Controls** | **Sharing Settings**, and navigate to the list related to **Account Sharing Rules**:



- 4. Click on **New**, and it will redirect you to a new window where you have to enter **Label**, **Rule Name**, and **Description** (always write a description so that other administrators or developers get to know why this rule was created).
- 5. Then, for **Rule Type**, select **Based on criteria**.
- 6. Select the criteria by which records are to be shared and create a criterion so that all records fall under it (such as **Account Name not equal to null**).
- 7. Select **Public Groups** in the **Share with** option and your group name.

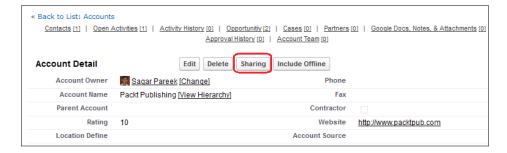
8. Select the level of access for the users. Here, select Read/Write from the drop-down menu of Default Account, Contract and Asset Access. Finally, it will look like the following screenshot:



Types of Sharing Rules

What we did to solve the preceding business requirement is called Sharing Rule. There is a limitation on Sharing Rules; you can write only 50 Sharing Rules (criteria-based) and 300 Sharing Rules (both owner- and criteria-based) per object. The following are the types of Sharing Rules in Salesforce:

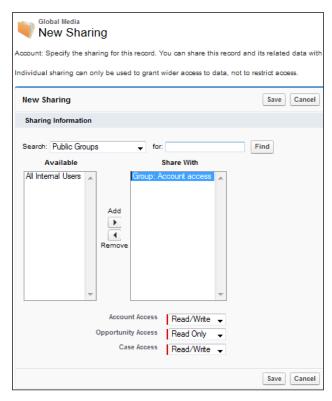
Manual Sharing: Only when OWD is set to Private or Public Read for any
object will a sharing button be enabled in the record detail page. Record
owners or users, who are at a higher position in role and hierarchy, can
share records with other users. For the last business use case, we changed
the account OWD to Public Read Only. If you navigate to the Account
records detail page, you can see the Sharing button:



Click on the **Sharing** button and it will redirect you to a new window. Now, click on **Add** and you are ready to share records with the following:

- Public groups
- Users
- Roles
- · Roles and subordinates

Select the access type for each object and click on **Save**. It will look like what is shown in the following screenshot:



The **Lead** and **Case Sharing** buttons will be enabled when OWD is **Private**, **Public Read Only**, and **Public Read/Write**.

• **Apex Sharing**: When all other Sharing Rules can't fulfill your requirements, then you can use the Apex Sharing method to share records. It gives you the flexibility to handle complex sharing.

Apex-managed sharing is a type of programmatic sharing that allows you to define a custom sharing reason to associate with your programmatic share. Standard Salesforce objects support programmatic sharing while custom objects support Apex-managed sharing.

Field-Level Security and its effect on data visibility

Data on fields is very important for any organization. They want to show some data to the field-specific users. In Salesforce, you can use Field-Level Security to make fields hidden or read-only for a specific profile. There are three ways in Salesforce to set Field-Level Security:

- From an object-field
- From a profile
- Field accessibility

From an object-field

Let's start with an example where Sagar Pareek is the system administrator in Appiuss. His manager Sara Barellies wants to create a field (phone) on an account object and make this field read-only for all users and also allowing system administrators to edit the field.

To solve this business requirement, follow these steps:

- 1. Navigate to **Setup** | **Customize** | **Account** | **Fields** and then click on the **Phone** (it's a hyperlink) field.
- 2. It will redirect you to the detail page of the **Phone** field; you will see a page like the following screenshot:



3. Click on the **Set Field-Level Security** button, and it will redirect you to a new page where you can set the Field-Level Security.



- 4. Select **Visible** and **Read-Only** for all the profiles other than that of the system administrator. For the system administrator, select only **Visible**.
- 5. Click on **Save**.

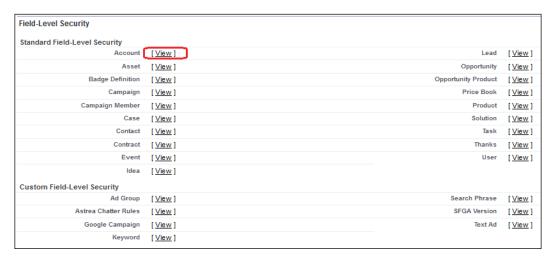


If you select **Read-Only**, the visible checkbox will automatically get selected.

From a profile

Similarly, in Field-Level settings, you can also achieve the same results from a profile. Let's follow the preceding business use case to be achieved through the profile. To do this, follow these steps:

- 1. Navigate to **Setup** | **Administer** | **Manage Users** | **Profile**, go to the **System Administrator** profile, and click on it. Now, you are on the profile detail page.
- 2. Navigate to the **Field-Level Security** section. It will look like the following screenshot:

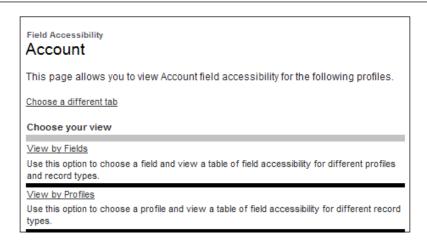


- 3. Click on the **View** link beside the **Account** option. It will open **Account Field-Level Security** for the profile page.
- 4. Click on the **Edit** button and edit **Field-Level Security** as we did in the previous section.

Field accessibility

We can achieve the same outcome by using field accessibility. To do this, follow these steps:

- 1. Navigate to Setup | Administer | Security Controls | Field Accessibility.
- Click on the object name; in our case, it's Account.
- 3. It will redirect you to a new page where you can select **View by Fields** or **View by Profiles**:



- 4. In our case, select View by Fields and then select the field Phone.
- 5. Click on the editable link as shown in the following screenshot:



6. It will open the **Access Settings for Account Field** page, where you can edit the Field-Level Security. Once done, click on **Save**.

Setting up password policies

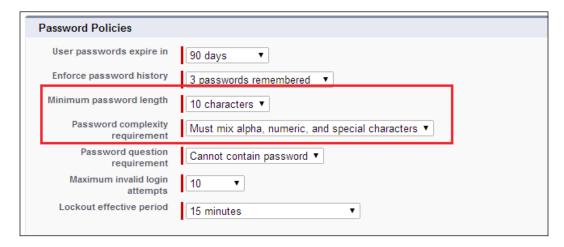
For security purposes, Salesforce provides an option to set password policies for the organization. Let's start with an example. Sagar Pareek, the system administrator of an organization, has decided to create a policy regarding the password for the organization, where the password of each user must be of 10 characters and must be a combination of alphanumeric and special characters. To do this, he will have to follow these steps:

1. Navigate to **Setup** | **Security Controls** | **Password Policies**. It will open the **Password Policies** setup page:



- 2. In the **Minimum password length** field, select **10 characters**.
- 3. In the **Password complexity requirement** field, select **Must mix Alpha**, numeric and special characters.

4. Here, you can also decide when the password should expire under the **User password expire in** option. Enforce the password history under the option **enforce password history**, and set a password question requirement as well as the number of invalid attempts allowed and the lock-out period.



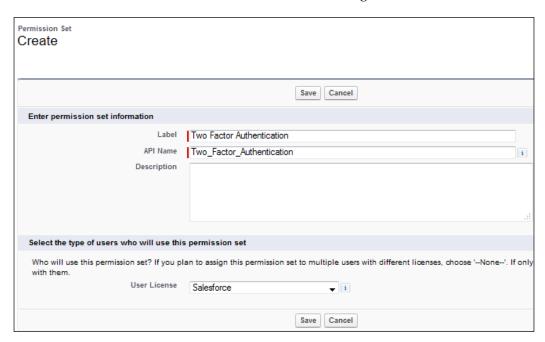
5. Click on **Save**.

Two-factor authentication in Salesforce

Two-factor authentication in Salesforce is a two-step login process. You can enable it if your users need more security rather than the ordinary login process. In this process, once the user logs in using their username and password, a token or passcode is sent to their device, which they need to enter in order to finally log in.

Time-based tokens can now be used as a substitute to SMS-based (not available for non-English organizations) and e-mail-based login verification to activate a computer:

- 1. Download the supported Authenticator app for your mobile devices.
- 2. Create one permission set with the name **Two Factor Authentication**. To do this, navigate to **Name** | **Setup** | **Manage Users** | **Permission sets** | **New** and enter the data as shown in the following screenshot:

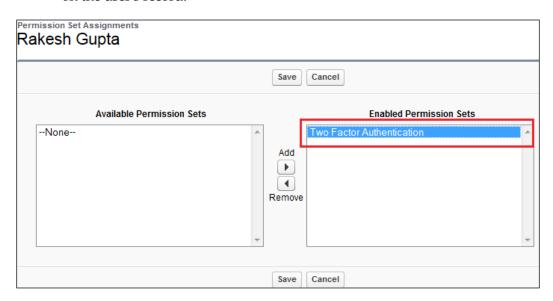


3. Add the **Two-Factor Authentication for User Interface Logins** system permission in the newly-created permission sets.

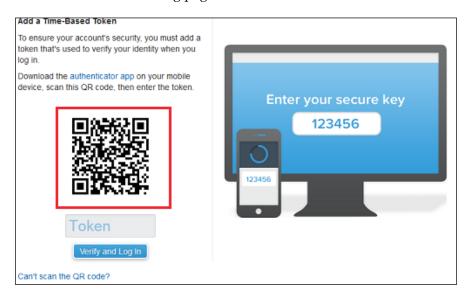


4. Now, navigate to the user's record for which you want to enable **Two** Factor Authentication.

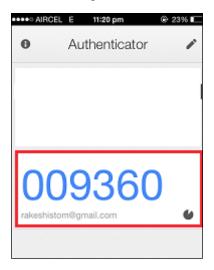
5. Add this permission set to the user's record by clicking on the **Edit Assignments** button in the list related to **Permission Sets Assignments** on the user's record.



6. Now, log out from Salesforce and log in using your credentials; you will come across the following page:



7. Open **Google Authenticator App** on your mobile and scan the QR code, and it will look like the following screenshot:



8. Enter this code in the login screen and access your organization.

Removing Time-Based Token/Two-Factor Authentication

It's very easy to do this; just navigate to the user's record and click on the **Remove** link beside **Time-Based Token**:





Session setting and its effect on users

A session is the period of time during which a user interfaces with Salesforce. The user session begins when the user accesses the Salesforce organization and ends when the user logs out of it. You can set **Session Settings** in Salesforce according to the organization security you want. For example, the system administrator of Appiuss, Sagar Pareek, wants to expire the session of every inactive user after 30 minutes, to ensure security.

In order to achieve this, follow these steps:

1. Navigate to Setup | Administer | Security Controls | Session Settings:



- 2. It will redirect you to customize the **Session Security Settings** page.
- 3. In **Timeout value**, set the value to **30 minutes**. You can also select various session settings, listed as follows, depending on what happens when the session expires:
 - Lock sessions to the IP address from which they originated
 - Require secure connections (HTTPS)
 - ° Force relogin after Login-As-User
 - ° Require HttpOnly attribute

You can also enable SMS-based identity confirmation. The following screenshot shows the various session settings:



4. Once done, click on Save.



You select a minimum of 15 minutes to a maximum of 12 hours of timeout value. It is recommended that you use the minimum values for added security for your organization.

Additionally, you can set the following settings under **Session Settings**:

Field	Description
Disable session timeout warning pop up	If enabled, it will prompt a notification 30 seconds before the expiration of the session to the user.
Lock sessions to the IP address from which they originated	This option allows you to lock the session to a particular IP address. This prevents the session from being hijacked.
Require secure connections (HTTPS)	By default, this is enabled, and ensures that the user logs in from HTTPS, except Force. com sites, which can be accessed from an HTTP.
Force relogin after Login-As-User	If your administrator is privileged to log in on behalf of another user, this option allows returning back to the previous session after logging out. If this option is enabled, the administrator is asked to relogin after logging out as the privileged user.
Require HttpOnly attribute	This option restricts the session ID's cookie access.
Enable caching and password autocomplete on login page	By default, this is enabled. This option allows your browser to store usernames.
Enable SMS-based identity confirmation	This option, if enabled, asks users to enter a PIN received on their registered mobile number via an SMS.
Login IP Ranges	By using this option, you can define the valid IP range from which users can log in. This field is not available in Enterprise, Unlimited, Performance, and Developer Editions. In these editions, you can specify a valid IP address per profile.
Enable clickjack protection for setup pages	This protects against clickjack attacks on setup Salesforce pages.
Enable clickjack protection for non-setup Salesforce pages	This protects you against clickjack attacks on non-setup Salesforce pages.
Enable clickjack protection for non-setup customer Visualforcepages	This protects you against clickjack attacks on your Visualforce pages. If you use custom Visualforce pages within a frame or iframe, you may see a blank page, or the page may display without the frame.

Field	Description
Enable CSRF protection on GET requests on non-setup pages	This protects against Cross-site Request Forgery (CSRF) attacks by modifying non-setup pages to include a random string of characters in the URL parameters or as a hidden form field.
Enable CSRF protection on POST requests on non-setup pages	This protects against CSRF attacks by modifying non-setup pages to include a random string of characters in the URL parameters or as a hidden form field.

Network access – securing your organization's data

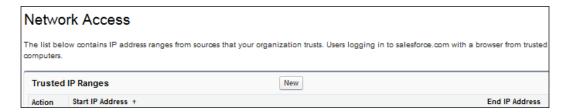
The system administrator of Appiuss knows that data available in their organization is sensitive, and they want to make sure that it should always be kept safe and secure from every angle, and no one other than the permitted users may log in to the organization. They also want to make sure that in the worst-case scenario, if any rival gets a username and password, they must not be able to log in. The system administrator knows that the users always log in from the company's network, so it is easier to restrict the login to the company's network.

To achieve this, you can follow these steps:

1. Navigate to Setup | Administer | Security Controls | Network Access:



2. Click on **New**.



3. Enter the valid IP range of your organization in the **Start IP Address** and **End IP Address** fields:



- 4. If your organization is using a static IP address, make sure you enter the same IP address in both fields.
- 5. Click on Save.



The start and end IP addresses in an IPv4 range must include no more than 33,554,432 addresses. The following ranges are valid:

- 0.0.0.0 to 1.255.255.255
- 132.0.0.0 to 132.255.255.255
- 132.0.0.0 to 133.255.255.255

Removing activated IP activations

When you log in from an unknown device with a new IP address, Salesforce asks you to provide an identity confirmation code that is delivered via e-mail, SMS, or a mobile authentication app. Once you enter the identity confirmation code, the device (and client browser) is considered as activated. You can use this method when you don't have your cell phone, or if it is lost, you can ask your administrator to remove the old IP address so that no one can get unauthorized access to your Salesforce system. Once your IP is activated, Salesforce won't ask you for an identity confirmation again.

To remove an activated IP, follow these steps:

1. Navigate to Setup | Administer | Security Controls | Activations:



- 2. Select the **Login IP** that you want to remove and then click on **Remove**.
- 3. In their next login attempt, the user has to provide a confirmation of their identity.

Setting up login access policies

If your organization wants to access any user's owned information without first asking them to grant the administrator with the permission to log in on their behalf, the system administrator can enable login access policies for the organization.

You can do this in the following manner:

- 1. Navigate to Setup | Administer | Security Controls | Login Access Policies.
- 2. To allow the administrator to log in on any user's behalf without first asking them, enable the **Administrators Can Log in as Any User** option. This option is not available by default; you need to raise a case with Salesforce.com to enable it:



- 3. Additionally, if you want to prevent users from granting access to publishers, click on **Available to Administrators Only** for that publisher.
- 4. Click on Save.

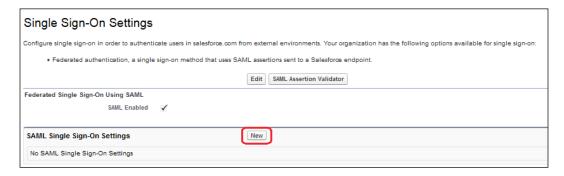
Single sign-on settings

Single sign-on allows users to log in via external environments. To configure the single sign-on setting for your organization, follow these steps:

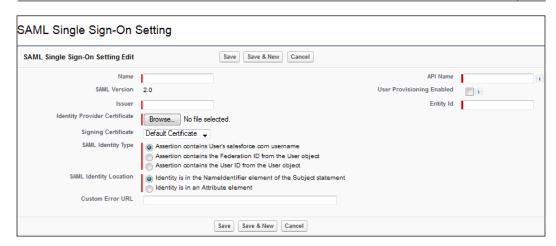
- 1. Navigate to Setup | Security Controls | Single Sign-On Settings.
- 2. Click on the **Edit** button and select the **SAML Enabled** checkbox:



- 3. Click on Save.
- 4. You will be redirected back to the **Single Sign-On** page.
- 5. Under SAML Single Sign-On Settings, click on New:



6. It will redirect you to the **SAML Single Sign-On Setting** page where you have to provide various details:



The descriptions of the various fields are found in the following table:

Field	Description
Name	Enter the full name.
SAML Version	Select the appropriate SAML version.
Issuer	Enter the identity provider's name.
Identify Provider Certificate	Click on the Browse button to upload the authentication certificate issued by your identity provider.
Custom Error URL	Enter the URL that users should be redirected to, in case any errors occur during SAML login.
SAML Identity Type	Specify what the SAML identity type will be. You can select either using the Salesforce.com users or the Federated ID.
SAML Identity Location	Specify the location of the SAML identity.

Authentication providers

These days, we are using various login credentials to access multiple websites such as Facebook and Janrain. To access these websites, you have to remember multiple login credentials, and if you are using Salesforce, that is one more credential to remember. Once you enable this feature, users can log in to Salesforce from an external service provider such as Facebook or Janrain, and there is no need to remember one more credential to log in to Salesforce. You can use your favorite account to log in to Salesforce.

To configure an authentication provider successfully for single sign-on, you need to perform the following activities:

- 1. Configure the login service provider website.
- 2. Use Apex to create a registration login handler.
- 3. Define the authentication provider in your Salesforce.com organization.
- 4. Once you set up the authentication provider, the steps that a user has to perform will be described as follows.
- 5. Users will try to log in to Salesforce.com using third-party identity credentials.
- 6. The login request will be redirected to an authentication provider for the service provider.
- 7. The third-party service provider authenticates the login credentials and redirects the user to Salesforce.com with the credentials.
- 8. Finally, the user gets access to Salesforce.com.

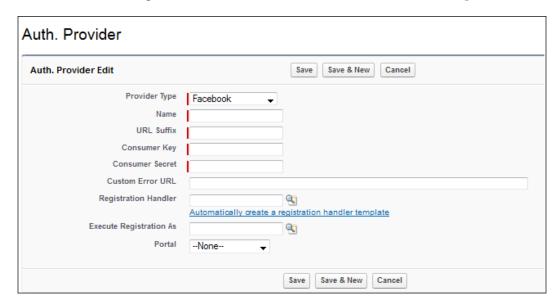
To configure the authentication provider in Salesforce.com, you have to follow these steps:

- 1. Navigate to Setup | Administer | Security Controls | Auth. Providers.
- 2. Click on **New**, as shown in the following screenshot:



3. It will redirect you to a new page, where you have to select the authentication provider.

4. The following is a screenshot for Facebook as the authentication provider:



5. Here, you have to specify information for the mandatory fields (the fields that feature a red mark). The fields shown depend on the authentication provider. The description of various fields is as follows:

Field	Description
Name	This specifies the name of the authentication provider.
URL Suffix	This specifies the suffix to be used in client configuration URLs.
Consumer Key & Secret	The authentication provider provides this information. In this scenario, Facebook will provide the information when you create an application in Facebook.
Custom Error URL	This is an optional field where you can specify the URL to be used by the provider to report any errors.
Registration Handler	This is the Apex class used for registration handling.
Portal	If the SSO needs to be extended to portal users, select an appropriate portal for this.

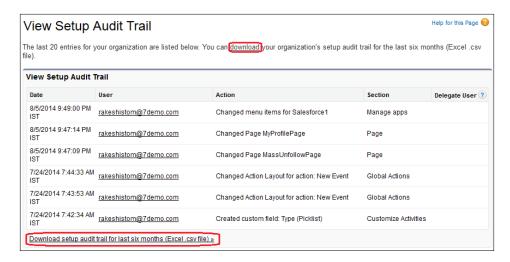
6. Once done, click on **Save**.

View Setup Audit Trail

Salesforce.com keeps an Audit Trail of configuration changes made in the **Setup** section. This Audit Trail is available for administrators to track recent setup changes. This becomes especially helpful if there are multiple administrators for your organization. Let's start with an example where Appiuss has many system administrators and they want to track who changed the configuration. Only the system administrator or a user with View Setup and configuration permission can use this feature. You can see the last 20 entries under Setup Audit Trail and are able to download data of the last six months for your organization.

To access the Audit Trail, follow these steps:

1. Navigate to Setup | Administer | Security Controls | View Setup Audit Trail:



2. The preceding screenshot shows the last 20 most recent configuration changes for your organization.

The description of the various fields is as follows:

Field	Description
Date	The Audit Trail shows the date/time for every change.
User	This field shows the information about the user who made the change, in this case, the username.
Action	This field shows the action taken by the user. Examples include changing the workflow rule name and object name, field creation, and password change.

Field	Description
Section	This shows which section was impacted by the change, for example, customize accounts, workflow, manage users, reports, groups, and so on.
Delegate User	This shows the name of the delegated user who made the changes. This will have value only if changes made by the delegated user are on behalf of another user.

Audit Trail key concepts

You can check Audit Trail for the mentioned section/type of changes:

- Administration: This will track various administration changes such as changes in the company information, multiple currencies, users, e-mail address changes, profile changes, roles, record types, creating e-mail footers, and domain name changes.
- Customization: These changes are related to the interface changes, forecasts, contracts, ideas, field tracking in feeds, support-related settings, process setups, and changes to groups.
- Security and sharing: These are related to security settings and sharing, such as password policy changes, session setting changes, changes in SAML settings, and so on.
- Data management: These changes are related to the mass deletion of records, data export requests, the mass transfer of records and import wizard usage, and changes in analytic snapshots.
- **Development**: This change is related to Apex classes, triggers, and Visualforce. Changes can include modifications to triggers, classes or Visualforce; remote site access setup; and Force.com site setup.
- Various setups: These include various setup changes such as the creation
 of an API, usage metering notifications, territories usage, workflow and
 approvals settings, and AppExchange package installation/uninstallation,
 and creation and deletion of workflow actions are also tracked.
- **Using the application**: These changes are related to the changes in the account team and opportunity team selling settings, Google App services, and the enabling and disabling of partner and customer portal users.



The View Setup Audit Trail page only shows the 20 most recent entries in the list. To download the full audit history for the last 180 days, click on the download link. If you want to learn more about the types of changes in the setup Audit Trail history tracks, visit https://help.salesforce.com/htviewhelpdoc?id=admin_monitorsetup.htm&siteLang=en US.

Expire all passwords

Salesforce is giving you the flexibility to expire all users' passwords at any time to enforce extra security for your organization. Only the system administrator or users with the manage user permission can use this feature. If all the passwords have expired, and the user tries to log in the next time, they will be forced to set a new password. To expire all passwords, follow these steps:

- 1. Navigate to Setup | Administer | Security Controls | Expire All Passwords.
- 2. Select the **Expire all user passwords** checkbox, as shown in the following screenshot:



3. Click on Save.



This will not affect the users who have the **Password Never Expires** permission.

Concepts of delegated administration

Let's start with an example where Appiuss has 5,000 Salesforce Enterprise Edition licenses, and they have only one system administrator. The system administrator receives ample requests to reset the password, change login hours, unlock users, or change their sharing settings daily. To reduce this, the system administrator can go ahead and set up a delegated administrator, so that any other user who is a delegated administrator can help with the workload.

The delegated administrator is a concept that extends certain admin privileges to non-admin users in order to allow them to perform admin functions. The actions that delegated administrators can perform include the following:

- **User administration**: For the named roles and their entire subordinate roles, delegated administrators can create and edit users and reset passwords, as well as unlock users in named roles. Delegated users can also log in as users who have granted login access to their administrator. They can also do quota settings, create default teams, and create personal groups.
- Assignable profiles: The delegated administrators can assign only the profiles granted to the delegated administrator.
- Custom object administration: Access can be granted to delegated administrators to serve as administrators for certain custom objects and their associated tabs only.

Setting up a delegated administration

To set up a delegated administration for your organization, follow these steps:

- 1. Navigate to Setup | Administer | Security Controls | Delegated Administration.
- 2. Click on **New** as shown in the following screenshot:



- 3. It will redirect you to a **New Delegated Group** window, where you have to enter data in the **Delegated Group Name** field as well as optionally select the **Enable Group for Login Access** checkbox. The details of each field are as follows:
 - Delegated Group Name: This specifies the group name.
 - Enable Group for Login Access: This option is selected if you want to allow the delegated administrator to log in as a user belonging to the role hierarchy that they manage.



4. Click on **Save**; this will redirect you to the **Delegated Group Detail** page. This will look like the following screenshot:



- 5. After creating the delegated user group, you have to do a few tasks, defined as follows:
 - Oelegated administrators: You can add users to this group who are a part of the delegated administrator group. To do this, click on the Add button available on the list related to Delegated Administrator; it will redirect you to a new page and add users (click on the magnifying glass icon) as per your business requirement. Once done, click on Save:





Only users whose profiles include the **View Setup and Configuration** permission can be delegated administrators.

Ouser Administration: Now, you have to specify the roles and subordinates that the delegated administrators can create and edit. To do this, click on the Add button available in the list related to Role Administrator; this will redirect you to a new page and add a role (click on the magnifying glass icon) as per your business requirement. Once done, click on Save:



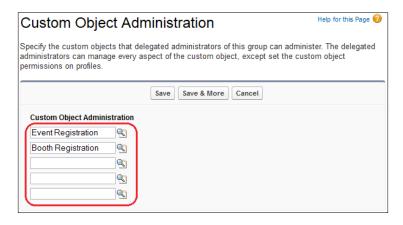
Assignable Profiles: Here, you can specify the profiles of the delegated administrators of this group and these can be assigned to the users they create or update. To do this, click on the Add button available on the list related to Assignable Profiles; this will redirect you to a new page and add assignable profiles as per your business requirement. Once done, click on Save:





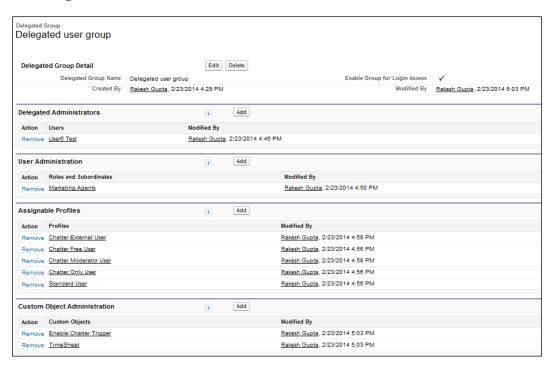
Delegated administrators cannot assign profiles with the permission **Modify All Data**, such as system administrator profiles.

Custom Object Administration: In this section, you can specify the custom objects that the delegated administrators of a group can administer. To do this, click on the Add button found on the list related to Custom Object Administration; it will redirect you to a new page, and here, you can add custom objects (click on the magnifying glass icon) as per your business requirement. Once done, click on Save:



Now, you are done with the delegated administrator settings. You can change these settings any time by navigating to **Setup** | **Administer** | **Security Controls** | **Delegated Administration**.

These changes are captured under View Setup Audit Trail. If you need to check the Audit Trail for these changes, navigate to **Setup** | **Administer** | **Security Controls** | **View Setup Audit Trail**. Finally, our delegated administrator page will look like the following screenshot:



Remote site settings

Salesforce allows you to access external website resources from a Salesforce application for your organization. You can access these external websites through Visualforce pages, Apex Callout, and via XmlHttpRequest calls. To avoid accessing malicious websites from Salesforce.com, the website first needs to be registered with remote site settings. Once the site is registered, it can be used within Salesforce.com.

To register a new site, follow these steps:

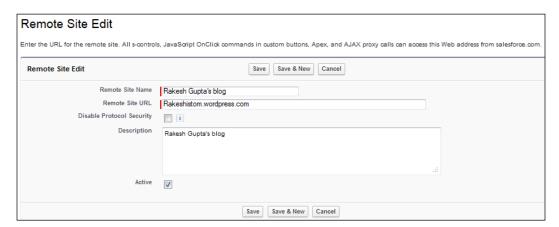
- 1. Navigate to Setup | Administer | Security Controls | Remote Site Settings.
- 2. Click on the **Remote Site Edit** button to add a new site:



It will redirect you to a new page where you have to fill in the required information to register the new site. The description of various fields is as follows:

Field	Description
Remote Site Name	Here, you can enter the name of the remote site.
Remote Site URL	Here, you can enter the URL for the remote site.
Disable Protocol Security	Select this to allow access to the remote site regardless of the HTTP or HTTPS protocol.
Description	Here, you can provide a description for the remote site.
Active	To make the remote site active, select this checkbox.

The following is a screenshot of what you'll see:



3. Once you are done, click on **Save**.

HTML documents and attachments settings

Salesforce allows you to upload various types of documents. These documents can be uploaded in the notes and attachments section of any record or in the documents section. Uploading HTML can be a security risk (due to an XSS attack), and for security reasons, your organization may prohibit this type of document upload to Salesforce. Once this feature is enabled, it doesn't allow users to upload a file with any of these extensions: htm, html, htt, htx, mhtm, mhtml, shtml, and acgi. These settings won't affect the previously-uploaded HTML documents and attachments, but when users try to view an HTML attachment or document, their browser first prompts them to open the file in the browser, save it to their computer, or cancel the action. This feature won't affect the attached HTML document on e-mail templates.

To prohibit the uploading of HTML attachments and documents, follow these steps:

- 1. Navigate to Setup | Administer | Security Controls | HTML Documents and Attachments Settings.
- 2. Select the **Disallow HTML documents and attachments** checkbox:



Click on Save.

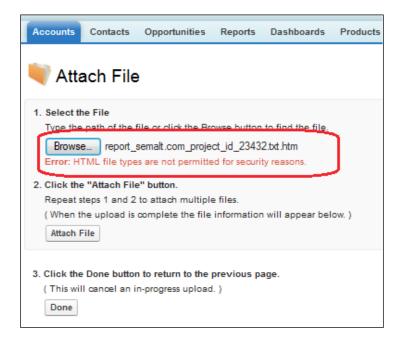


Do not enable this setting if your organization uses the partner portal to give your partner users access to Salesforce.

Testing document and attachment settings

If you want to test this feature, follow these steps:

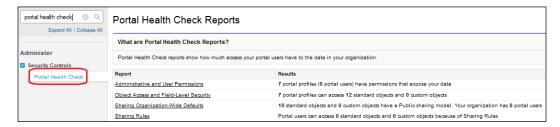
- 1. Click on the **Account** tab.
- 2. Navigate to the records details page in which you want to attach the document.
- 3. Navigate to the list related to **Notes & Attachments**.
- 4. Click on the **Attach file** button and try to upload the HTML file, and you will get an error, as shown in the following screenshot:



Portal Health Check

By using partner and customer portals, you can collaborate with both your customers and partners. A partner portal is a great way to share and capture leads, accounts, and contacts with your third-party partner. A customer portal is another way to offer efficient and faster services to your customer from the cloud. Your customers and partners can access your information via portals in many ways. To ensure your data security, it's important to keep in mind and follow best practices for portal implementation.

The Portal Health Check Report provides a summary of the access level for data on the portals. Using Portal Health Check, you can improve portal security. To access various Portal Health Check Reports, you can navigate to **Setup** | **Administer** | **Security Controls** | **Portal Health Check**:



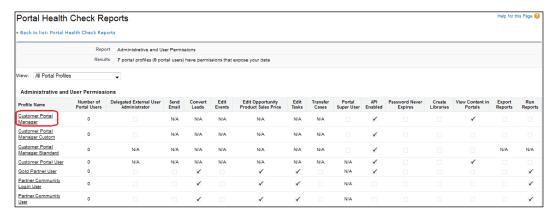
Portal Health Check Reports

Salesforce provides four types of Portal Health Check Reports to check different types of information. The four reports are as follows, and we will go through each of them in detail:

- Administrative and User Permissions
- Object Access and Field-Level Security
- Sharing Organization-Wide Defaults
- Sharing Rules

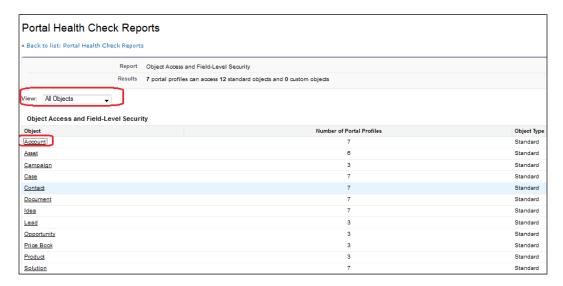
Administrative and User Permissions

The **Administrative and User Permissions** report provides information about the User Permissions granted to the portal users. You can click on the profile link to see the detailed information; it will redirect you to the profile detail page. The following screenshot shows the **Administrative and User Permissions** reports:

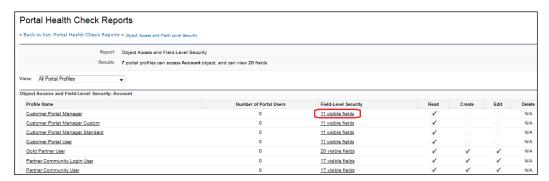


Object Access and Field-Level Security

You can use the **Object Access and Field-Level Security** report to check the object and Field-Level Security for objects. You can filter the list of objects available by changing the option in the **View** dropdown. The following screenshot shows the list of **Objects** with the **Number of Portal Profiles** using that object. To see the Field-Level access, click on the name of the object in the report.

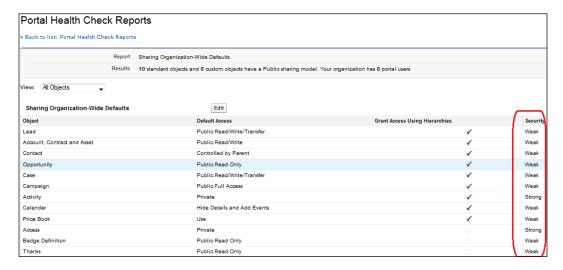


In our case, click on **Account**, which will redirect you to another page from where you can check the Field-Level Security of different profiles by clicking on the **Field-Level Security** link, as shown in the following screenshot:



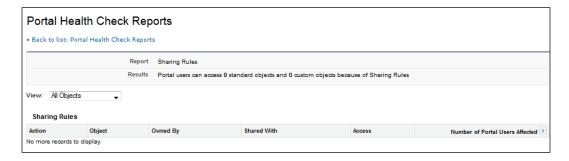
Sharing Organization-Wide Defaults

The **Sharing Organization-Wide Defaults** report provides information on the default access level for the objects. The access level indicates whether the object record is accessible. The access level can be read, write, or transfer. Under the **Security** column, you can find the security strength for different objects:



Sharing Rules

If any of the Sharing Rules impact the portal users, then the objects visible to the portal users are visible in this report. The following screenshot shows an example of a Sharing Rules report:





Portal Health Check Reports are accessible only when a customer or partner portal is enabled for your organization.

Summary

In this chapter, we have gone through various security setting features available on Salesforce. Starting from OWD, followed by Sharing Rules and Field-Level Security, we also covered password policy concepts and two-factor authentication in Salesforce. Finally, we discussed Audit Trails, remote site settings, and Portal Health Check-ups. Now, you should be able to understand and manage Salesforce.com's security settings to have an efficient form of data security, providing a balance between security of data access for users and limiting risk of misuse and loss of data. In the next chapter, we will go through the e-mail administration concepts, and we will also cover how to change your Salesforce login page as well as concepts related to My Domain.

4

Domain Management, E-mail Administration, and Google Apps Settings

In this chapter, we will discuss about domain settings, which is a way to customize the login page. We will also discuss various concepts related to e-mail administration in Salesforce. The following topics will be covered in this chapter:

- My Domain
- Customizing your Salesforce login page
- Various e-mail administration methods
- Google Apps settings

My Domain

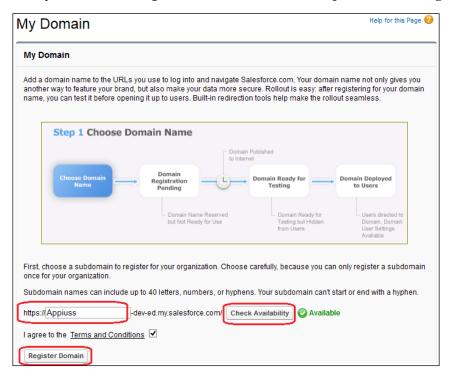
You can improve security and brand your organization's login pages by enabling your custom domain. By using **My Domain**, you can define a custom Salesforce domain name. A custom Salesforce domain name helps you to manage login and authentication for your organization in numerous ways. Here are a few examples:

- Brand your Salesforce login page and customize the content of the right-hand side frame
- You can block or redirect page requests that don't use the new domain name
- Get better support for single sign-on
- You can set a custom login policy as per the requirement and determine how users are authenticated
- You can give users the option to select an alternate identity provider from the login page

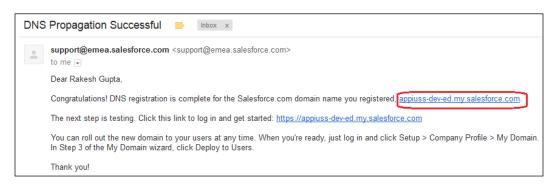
Setting up My Domain

To define My Domain for your organization, follow these steps:

- 1. Navigate to Setup | Administer | Domain Management | My Domain.
- 2. Enter the subdomain name you want to use within the sample URL. For example, a company called Appiuss might want to use the subdomain Appiuss. The company's login URL would be https://appiuss.my.salesforce.com/ (for Enterprise, Performance, Unlimited, Professional, and Groups Editions' production environment) and https://appiuss-deved.my.salesforce.com for a Developer organization. You can use up to 40 characters.
- 3. Once you enter the name, click on the **Check Availability** button to check the validity of this domain.
- 4. Now, select the checkbox I agree to the Terms and Conditions.
- 5. Finally, click on the **Register Domain** button to complete the first stage.



6. Wait for 10 to 24 hours and check your mail; you will get an e-mail similar to the one shown in the following screenshot when your domain name is ready for testing. Once you set up the domain, you cannot modify the name.



7. Click on the link circled in red and log in to Salesforce by using your credentials.

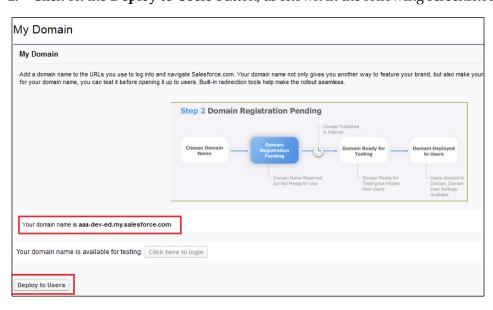


You can define a custom domain name only once. My Domain is also available for Sandbox environments. You can contact Salesforce support to delete the domain but not modify it.

Deploying My Domain

Your domain will not be available to users until you have tested and deployed it. To deploy your domain, follow these instructions:

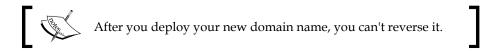
- 1. Navigate to Setup | Administer | Domain Management | My Domain.
- 2. Click on the **Deploy to Users** button, as shown in the following screenshot:



3. You will get the following pop-up message:



4. Click on **OK**, and it will redirect you to a new page where you can enter **My Domain Settings** and configure **Login Page Branding**.



My Domain Settings

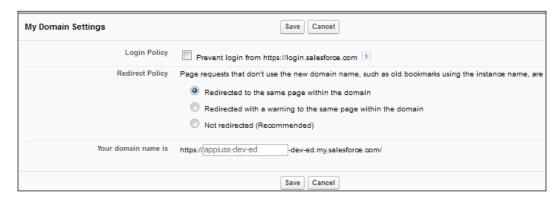
Once you deploy My Domain for your users, you will come to a new page where you can change the **My Domain Settings** for your organization. To change your **My Domain Settings**, follow these instructions:

- 1. Navigate to Setup | Administer | Domain Management | My Domain.
- 2. Click on **Edit**, as shown in the following screenshot:

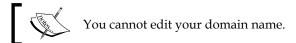


3. Under Login Policy, you can select Prevent login from https://login. salesforce.com, where you don't want to allow the user to log in except by using the My Domain login URL.

4. You can also select **Redirect Policy** for page requests that don't use the new domain name, such as old bookmarks.



5. Once done, click on Save.



Customizing your Salesforce login page

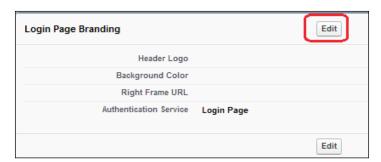
Whenever you try to log in to Salesforce by using https://login.salesforce.com/ or https://test.salesforce.com/, you will be sent to Salesforce's default login page. For every organization, branding matters because we live in the Internet age. You can transform the look and feel of your Salesforce login page and use your branding as well.



To customize the look and feel of your Salesforce login page, at least one domain must already be enabled for your organization.

To customize your Salesforce login page, follow these steps:

- 1. Navigate to Setup | Administer | Domain Management | My Domain.
- 2. Go to the Login page branding section and click on Edit.

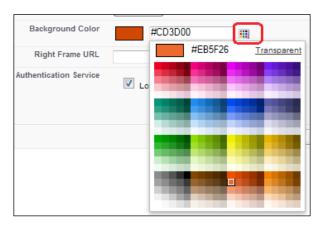


3. Click on **Browse** and upload the **Header Logo** if you want to use your organization's logo.



The logo will appear on your login pages in JPG, GIF, or PNG formats, which will be maximum 100 KB in size. The maximum dimensions allowed are $250 \text{ px} \times 125 \text{ px}$.

4. To change the background color of your login page, click on the color picker or enter a valid hexadecimal color code as shown in the following screenshot:



5. To change **Right Frame URL** that is available on the right-hand side of the login frame, enter a correct iframe URL link.



Content must be located at a URL that uses SSL encryption and the $\verb|https://prefix|$. Maximum content size is 478 px by 397 px.

- 6. Select the **Authentication Service** option available on the page, as at least one authentication service is required.
- 7. Click on Save.
- 8. Log out from your Salesforce developer account, and Salesforce will redirect you to your customized login page.



Next time you use your My Domain URL to log in to Salesforce, it will redirect you to your custom login page.

Various e-mail administration methods

There are various ways to maintain e-mail administration in Salesforce. We will discuss the following points in brief:

- Deliverability
- Organization-Wide Addresses
- Compliance BCC Email
- Test Deliverability

- E-mail to Salesforce
- Delete attachments sent as Linkl
- E-mail Footers

Deliverability

E-mail deliverability is a way to ensure that the company or an individual's e-mails reach its target recipient. If you want to boost the deliverability of an e-mail that you send from your Salesforce organization, you have to configure the deliverability settings.

Access to Send Email

If you want to control the types of e-mail that your organization can send, you have to follow these steps:

- 1. Navigate to Setup | Administer | Email Administration | Deliverability.
- 2. Go to the **Access to Send Email** section, and select the **Access level** dropdown:



There are three options under the **Access level** dropdown, and the description for each of them is as follows:

- **No access**: This option prevents all outbound e-mails to and from users. Workflow e-mail alerts will not work if you select this option.
- System email only: This option allows you to send auto generated e-mails, such as new user and password reset e-mails. This setting is especially useful for controlling the e-mails sent from Sandboxes so that the testing and development team don't send test e-mails to your users.

• All email: This option allows you to send all types of outbound e-mails.



Sandboxes created before Spring 13 have **all email** selected by default, and newly created Sandboxes default to **System emails only**.

Bounce Administration

The bounce e-mail administration features help you to ensure that the e-mail addresses you have for your contacts, leads, and personal accounts are correct. It also makes sure that the e-mails your users send to those addresses are not blocked due to excessive e-mail bounces.

To set up bounce e-mail administration for your organization, follow these steps:

- 1. Navigate to Setup | Administer | Email Administration | Deliverability.
- 2. Go to the **Bounce Administration** section. Now, you will have to select the **Activate bounce management** checkbox to enable the feature:



Once the bounce e-mail administration feature is enabled and a user sends an e-mail to an invalid e-mail address, the e-mail bounces to Salesforce.com and the user is banned from sending any more e-mails to that address until the address is updated or confirmed. You can also select what happens when an e-mail bounces by selecting one of the following checkboxes available under **Activate bounce management**:

- Show a bounce alert next to all instances of the email address: If this checkbox is not selected, Salesforce only displays a bounce alert on the record from which the e-mail was originally sent.
- **Return bounced emails to sender**: If this checkbox is not selected, Salesforce displays the bounce alert but discards the bounce message. This feature is not recommended when using e-mail relay.

Email Security Compliance

The **Enable compliance with standard email security mechanisms** checkbox automatically modifies the **from** address of every e-mail you send from Salesforce to comply with e-mail security frameworks that your recipients might implement, such as SPF. If you select the **Enable Sender ID compliance** option, it declares that Salesforce.com e-mails come from an authorized IP address.

To set up bounce e-mail administration for your organization, follow these instructions:

- 1. Navigate to Setup | Administer | Email Administration | Deliverability.
- 2. Go to the **Email Security Compliance** section. Now, you can activate this feature by selecting the checkbox that is shown in the following screenshot:

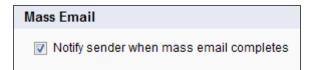




If you select the **Enable Sender ID compliance** checkbox, the recipient's e-mail client (not Salesforce) may append the phrase **Sent on behalf of** to the **from** field of e-mail received from Salesforce. This feature is not recommended when using e-mail relay.

Mass Email

You can notify your users with a status e-mail when their mass e-mails are complete by selecting **Notify sender when mass email completes**. With this option selected, Salesforce will send an e-mail notification once the mass e-mail completes. This option is available under the **Mass Email** section of the deliverability configuration page.



Organization-Wide Email Addresses

If your organization wants users to share a common e-mail name, you can define a list of Organization-Wide Addresses for each user profile. Organization-Wide Addresses define a common e-mail address that a user profile can use. When sending an e-mail from Salesforce, users with these profiles can select a different **from** address than the e-mail address they have defined and replies are sent to the Organization-Wide Address.

Let's start with an example. Whenever an e-mail alert is triggered from the workflow e-mail alert, it displays the user's personal e-mail address. To brand your organization, you can define multiple Organization-Wide Address like admin@ appiuss.com and Sales@appiuss.com for your organization that a user's profile can use. Users can select from which address they want to send e-mail alerts while configuring the workflow e-mail alert (we will discuss more about workflow in *Chapter 6, Automating a Business Process*). The following is an example of the e-mail address:

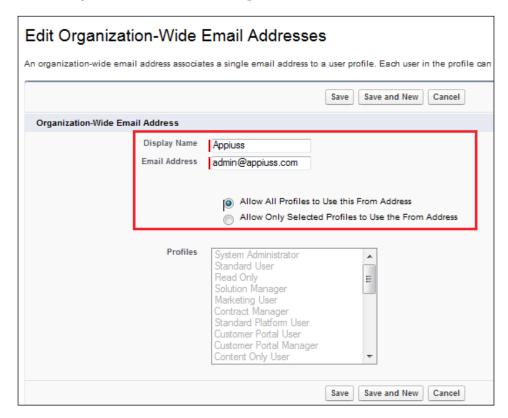


To configure an Organization-Wide Default Address for your organization, follow these instructions:

- 1. Navigate to Setup | Administer | Email Administration | Organization-Wide Email Addresses.
- 2. Click on Add.



3. It will redirect you to the **Edit Organization-Wide Email Addresses** page, where you have to fill in all the required details in order to create the address.



The descriptions of the fields are as follows:

- Display Name: This is the word or phrase that the users who receive your e-mail will see as the sender of the e-mail.
- Email Address: This is the e-mail address that is used when sending an outbound e-mail.
- Profiles: You can also select profiles that can use the selected e-mail address.
- 4. Once you click on **Save**, Salesforce will send an e-mail to the address specified in the **Email address** mentioned in last steps.

5. You have to open the e-mail and verify the e-mail address by clicking on the confirmation link, and then the user will be allowed to use this Organization-Wide Address. Once the e-mail address is confirmed by the user, you will see it verified under the status column:





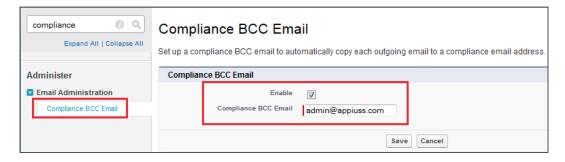
You cannot use an Organization-Wide address to send a mass e-mail or a Stay-in-Touch request. You cannot delete or change an organization-wide e-mail address if it is used by an e-mail alert.

Compliance BCC Email

Outbound e-mail is very important for any organization for security and compliance purposes. In Salesforce, you can easily enable the **Compliance BCC Email** feature to automatically send a secret copy of each outbound e-mail message to an e-mail address that you specify.

To configure the **Compliance BCC Email** feature for your organization, follow these steps:

- 1. Navigate to Setup | Administer | Email Administration | Compliance BCC Email.
- 2. Select **Enable** and specify the e-mail address, as shown in the following screenshot:



3. Click on Save.

This feature excludes e-mails like system e-mails, such as password reset or import completion notifications.



Compliance BCC Email prevents users from editing the BCC field on any e-mail and disables their Automatic BCC setting under My Email Settings.

Test Deliverability

Salesforce sends an e-mail from 52 different IP addresses. If your organization blocks any of these IP addresses, you might not receive all the e-mails sent from Salesforce. Salesforce.com maintains distinct IP addresses for inbound and outbound e-mail.

To check whether your organization can receive e-mails from every Salesforce IP address, follow these instructions:

- 1. Navigate to **Setup** | **Administer** | **Email Administration** | **Test Deliverability**.
- 2. Enter your e-mail address.
- 3. Click on **Send**. Salesforce instantly sends a test message from all 52 IP addresses to your e-mail address. Each test message specifies the IP address from which it was sent.



If you are using e-mail relay, you will just receive e-mails from five IP addresses. You have to whitelist these IP addresses.

If you received fewer than 52 test messages, contact your e-mail administrator. The organization's e-mail administrator must whitelist the Salesforce IP ranges on your organization's e-mail server. The Salesforce IP ranges are as follows:



96.43.144.64 to 96.43.144.65 96.43.148.64 to 96.43.148.65 182.50.78.64 to 182.50.78.79 204.14.232.64 to 204.14.232.79 204.14.234.64 to 204.14.234.79

Email to Salesforce

If you want to keep a record of each e-mail sent from your company provided e-mail addresses to the leads, contacts, opportunities, and other records, you can use the **Email to Salesforce** feature. This feature enables you to keep a copy of each e-mail sent from your third-party e-mail provided by your company. You simply need to send an e-mail with Bcc to the Salesforce organization's specific e-mail address. If the e-mail address in the **to** section of your mail matches the e-mail address of the lead, contacts, and opportunities, Salesforce will create a task with the corresponding record and it will be shown under the activity history of the record. Alternatively, you can keep this as an unresolved item and later assign it to some other user.

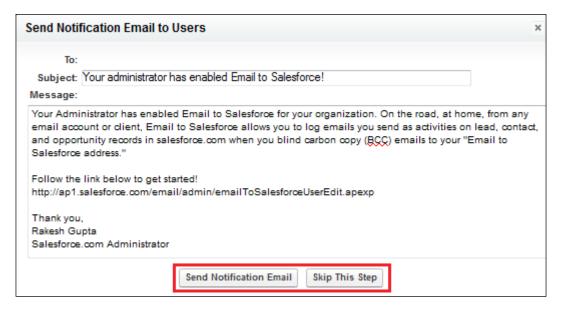
If you want to enable this feature for your organization, follow these steps:

- 1. Navigate to **Setup** | **Administer** | **Email Administration** | **Email to Salesforce**.
- 2. On the Email to Salesforce screen, click on Edit.



3. Select the **Active** checkbox. Also, you can select the **Advanced Email Security Settings** checkbox to configure **Email to Salesforce** to verify the legitimacy of the sending server before processing a message.

- 4. Click on **Save**.
- 5. Now, Salesforce will ask you to send a notification to all users mentioning that the administrator has enabled Email to Salesforce, and it will include a link to get started with an e-mail setup for individual users. Click on Send Notification or Skip This Step.

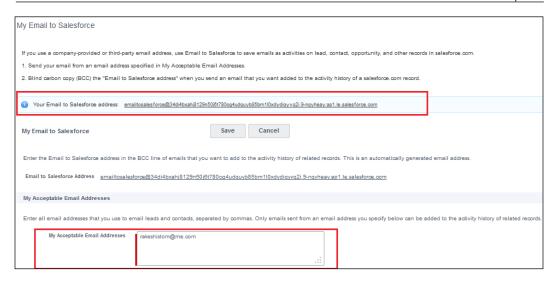


Setting up the Email to Salesforce URL

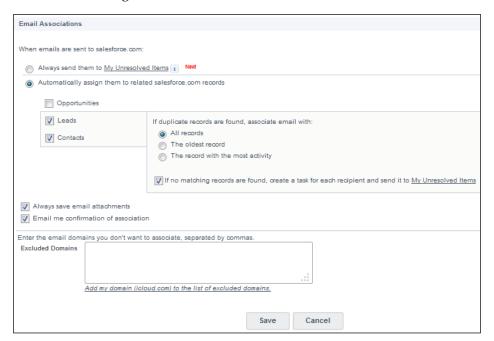
Each user has to set up the **Email to Salesforce** URL for their own use. Now Salesforce generates a user-specific **Email to Salesforce** e-mail address that is to be used to send e-mails as Bcc by the user.

To configure **Email to Salesforce**, follow these steps:

- 1. Navigate to Name | My Settings | Email | My Email to Salesforce.
- 2. Now, you will be able to see **Your Email to Salesforce addresses** in the highlighted part of the page.
- 3. You can set the e-mail addresses that you will use to send e-mails on behalf of the Email to Salesforce address in the My Acceptable Email Addresses field, separated by commas. Only the e-mails sent from an e-mail address you specify under the Email to Salesforce address will be added to the activity's history of related records; an unauthorized sender error will be bounced back if not.



4. Additionally, you can decide what you want to do with the e-mails that are sent to Salesforce. By default, it is set to **Automatically assign them to related salesforce.com records**. You can also select the **Always save email attachments** and **Email me confirmation of association** checkbox as shown in the following screenshot:



5. Click on Save.

Next time if you send an e-mail from the third-party e-mail client to an e-mail address specified on lead, contact, or opportunity, it will be listed down under **Activity History**:



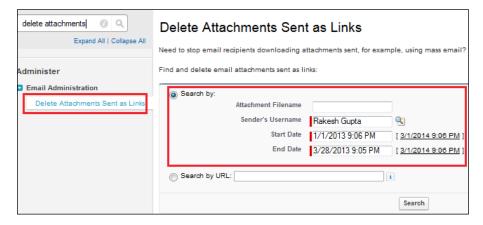
You will also get a confirmation e-mail from Salesforce with a link where the e-mail is attached under a list related to **Activity History**.

Deleting attachments sent as links

Salesforce provides a way to find and delete attachments sent as links. Receivers who subsequently click on the attachment link will see a message asking them to contact the e-mail sender to view the attachment. Let's start with an example: Sara Barallies asks the administrator Sagar Pareek to delete all the attachments that were sent as links to customers when the user Rakesh Gupta sent e-mails in bulk.

To do this, you can follow these instructions:

- 1. Navigate to Setup | Administer | Email Administration | Delete Attachments Sent as Links.
- 2. You have to enter the following details:
 - Attachment Filename (including the file extension if you remember it)
 - Sender's Username
 - ° Start Date
 - End Date



- 3. Click on Search.
- 4. In the search result, click on **Del** in front of the corresponding attachment to delete it.



You cannot recover deleted attachments from the Recycle Bin.

Email Footers

Email Footers are a great way to add disclaimers or to show some personal information or for branding purposes. Now, you can add footers to e-mails sent from Salesforce.com. A disclaimer appears at the bottom of all the outgoing e-mail messages sent from Salesforce or the API, as shown in the following screenshot. The defaults are used when no footer matches an outgoing e-mail's encoding.

Regarding Your Appiuss Customer Portal Registration

March 01, 2014 9:36 PM

From Appiuss >

To rakeshistom@icloud.com >

We appreciate your interest in registering for an account with Appiuss Customer Portal. However, your signup was not completed due to temporary technical reasons detailed below. Please contact the portal administrator if you have any questions.

Thank you,

Appiuss Customer Support

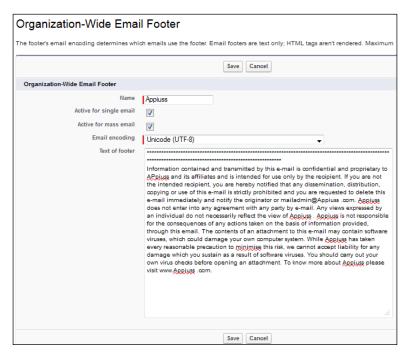
Information contained and transmitted by this e-mail is confidential and proprietary to APpiuss and its affiliates and is intended for use only by the recipient. If you are not the intended recipient, you are hereby notified that any dissemination, distribution, copying or use of this e-mail is strictly prohibited and you are requeste to delete this e-mail immediately and notify the originator or mailadmin@Appiuss.com. Appiuss does not enter into any agreement with any party by e-mail. Any views expressed by an individual do not necessarily reflect the view of Appiuss. Appiuss is not responsible for the consequences of any actions taken on the basis of information provided, through this email. The contents of an attachment to this e-mail may contain software viruses, which could damage your own computer system. While Appiuss has taken every reasonable precaution to minimise this risk, we cannot accept liability for any damage which you sustain as a result of software viruses. You should carry out your own virus checks before opening an attachment. To know more about Appiuss please visit www.Appiuss.com.

To define footers for your organization, follow these instructions:

- 1. Navigate to Setup | Administer | Email Administration | Email Footers.
- 2. Click on **New** to set a footer.



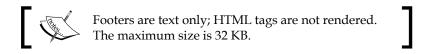
- 3. Provide the appropriate **Name** to the footer.
- 4. Select the **Active for single email** checkbox. Also, remember to select **Active for mass email** if you want the footer to be available for single e-mails, mass e-mails, or both. Select **Unicode UTF-8** in the **Email encoding** field.
- 5. In the **Text of the Footer** field, write the text you want to show with the footer itself.



6. Click on Save.



7. The defaults are used when no footer matches an outgoing e-mail's encoding. Now, you have to select the default footer for single and mass e-mail and click on **Save**.



Google Apps settings

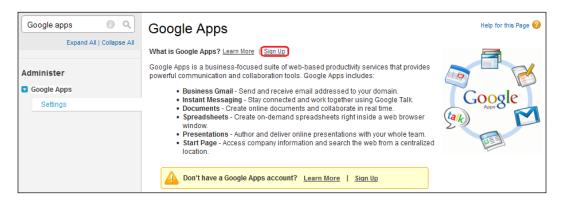
Google Apps is a suite of on-demand communication and collaboration services hosted by Google and designed for business users. If your organization has a Google Apps account, Salesforce administrators can enable Google Docs, Gmail, and a host of Google-related AppExchange apps that are customized for use within Salesforce. Your organization can use this feature to save file space in Salesforce and a few other purposes. The following are the steps to configure the Google Apps settings for your organization:

- Creating a Google Apps account
- Configuring Google Apps domain settings
- Activating Google Apps services
- Adding Google Docs to Salesforce

Creating a Google Apps Account

To create a Google Apps account for your organization, follow these steps:

- 1. Navigate to Setup | Administer | Google Apps | Settings.
- 2. Click on **Sign Up** and follow the instructions.



Configuring Google Apps domain settings

To configure Google Apps domain settings for your organization, follow these steps:

- 1. Navigate to Setup | Administer | Google Apps | Settings.
- 2. Click on Edit.



- 3. Select the **Google Apps Administrative Contact**. This person is the point of contact for Google Apps users in your organization.
- 4. Enter **Google Apps Domain** that you registered with Google. In our case, it is Appiuss.com.
- 5. Click on Save.

Activating Google Apps Services

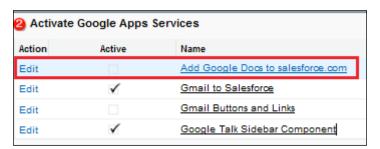
You can activate various Google Apps Services for your organization by performing the following steps:

- 1. Navigate to Setup | Administer | Google Apps | Settings.
- 2. Locate the Google Apps services that you want to activate.
- 3. Click on **Edit** to activate a service.

Adding Google Docs to Salesforce

After the activation of this service, you can directly attach documents from your Google Docs, and they will be saved to your Salesforce space. To activate the **Add Google Docs to Salesforce** feature, perform the following steps:

- 1. Navigate to Setup | Administer | Google Apps | Settings.
- 2. Click on the **Edit** link next to the **Add Google Docs to Salesforce** option in the **Activate Google Apps Services** list:

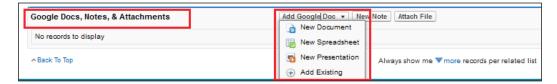


3. Select **Activate** and **I agree to the Salesforce.com Terms of Use for Google Apps** to enable the service.



4. Click on Save.

Now if you navigate to any records details page, you can find a link related to **Google Docs, Notes & Attachments**. You can now attach a file from Google Docs by clicking on the **Add Google Docs** button, as shown in the following screenshot:





Google Talk within Salesforce is no longer available. To learn more about Google Apps settings, you can go to https://help.salesforce.com/HTViewHelpDoc?id=google_setup_getstart.htm&language=en US.

Summary

In this chapter, we saw different ways of customizing the e-mail administration in Salesforce—starting from configuring My Domain to customizing the Salesforce login page. We also discussed how to set **Email Footers** and **Compliance BCC**, and how to enable the Email to Salesforce feature. Finally, we also discussed organization-wide default e-mail addresses and Google Apps settings.

In the next chapter, we will discuss Sales Cloud and Service Cloud in detail with the creation of custom objects, tabs, and apps.

CRM Functions and Streamlining Business Requirements

In the previous chapter, we discussed various concepts of security and settings in Salesforce. We spoke about Organization-Wide Defaults, sharing settings, and Field-Level Security. We also discussed two-factor authentication, network access, and many other concepts related to security. In this chapter, we will talk about domain settings and ways to customize the login page. We will also discuss various concepts related to e-mail administration in Salesforce. We'll cover the following topics in this chapter:

- Types of relationships in Salesforce
- Sales Cloud overview
- Service Cloud overview
- Streamlining a business process
- Setting the history-tracking option

Type of relationships in Salesforce

You can develop relationships between objects in Salesforce. You can also associate one object with another. For example, if you have an object named Event (to store information about an event) and you want to associate it with the Event Registration object (to store information about participants for a particular event) so that you can associate the event registration records with the respective event records, as you want to categorize each registration with the respective event. Salesforce provides the following five types of relationships that can be established between the objects:

- A master-detail relationship
- A lookup relationship
- A many-to-many relationship (junction object)
- Self-relationship
- A hierarchical relationship

A master-detail relationship

A master-detail relationship is a tightly-coupled relationship between Salesforce objects; this means that if a master record is deleted, then the child records associated with it are also deleted. In this type of relationship, the master controls the behavior of the child record in terms of visibility and sharing. It means the security setting of the master object applies to the child object.

For example, in our application (which we will discuss in the later part of this chapter), we have <code>Sponsor</code> that can register several booths in the event organized by Appiuss. For this requirement, we will use two objects: <code>Sponsor</code> and <code>Booth</code> Registration. So, in this case, <code>Sponsor</code> will act as the master object and <code>Booth</code> Registration as the child object.

When there is a master-detail relationship between two objects, you can create a special type of field over the master object called the Roll-up Summary field that we will discuss in a later section.

Lookup relationships

It is a loosely-coupled relationship between Salesforce objects, which means that even if the parent record is deleted, child records will remain in the system. Here, the parent and child both have their own setting through which they share information called security control.

The difference between master-detail and lookup relationships

Let's have a look at the differences between the lookup and master-detail relationships in the following table:

A lookup relationship	A master-detail relationship
Loosely-coupled relationship.	Tightly-coupled relationship.
Roll-up Summary field cannot be created.	Roll-up Summary field can be created.
A parent record is not required while creating a child record.	A parent record is always required in order to create a child record.
A child record can have as many lookup relationships as possible.	A child record can only have a maximum of two master-detail relationships.
Lookup fields are not required on the page layout of the detail record.	Master-detail field is always required on the page layout of the detail record.
Standard object record can be on the detailed side of a custom object record.	A standard object record cannot be on the detailed side of a custom object record.
The record ownership of child records is not controlled by the parent.	The parent controls the record ownership of child records. The owner field is not available in the detail record of a master-detail relationship. Queues, sharing rules, and manual sharing is not possible for detail records as they require the owner field.
You can have a child record without a parent.	You cannot have a child record without a parent.
You can have a maximum of 25 lookups on an object.	You can have a maximum of two master detail records on an object.
The cascade delete feature is not available.	The cascade delete feature is available.

Many-to-many relationship

We can create a many-to-many relationship in Salesforce if we need child records to have two masters that can control its behavior. For example, a solution is attached to many cases, and one case may have more than one solution. We use a many-to-many relationship in Salesforce to relate two objects. If you have two objects called Faculty and Course and you want to relate these two objects with the third called College, you can use the many-to-many relationship. In this case, you have to create two master-detail relationships: College - Faculty and College - Course.



One object can have only two master-detail relationships.

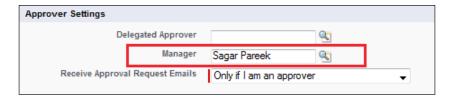
Self-relationship

Self-relationship is another example of a lookup relationship. In Salesforce, we can use the lookup relationship to create a self-relationship between objects. We can have a maximum of 25 self-lookups. For example, an account record has a parent account record, as shown in the following screenshot:



Hierarchal relationship

In Salesforce, only the user object has a hierarchal relationship where we can create a hierarchy of the users in the organization. For example, a user can have his or her manager, his or her manager can have a senior manager, and so on, until the user reaches the CEO or CIO level. The best example is the **Manager** field of the user object, as shown in the following screenshot:



Sales Cloud overview

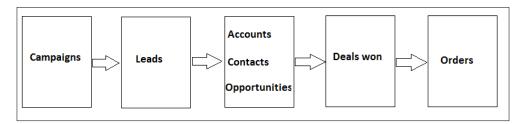
Sales Cloud is a product designed to automate your sales process. By implementing this, an organization can boost their sales process. It includes campaign, lead, account, contact, opportunity (deal), product, quotes, Chatter, report, dashboard, and many other features as well. Sales Cloud includes everything that you need to close a deal faster.

Sales Cloud can support your business purposes if you are looking for a solution to provide basic lead management, contact management, and activity tracking. Using this, you can also maintain a strong sales pipeline, quoting, and contract management on cloud. The productivity achieved by implementing the Sales Cloud solution allows your sales team to focus on identifying and bringing in more business. Your sales team will work more competently, while your marketing executives are provided with the actual information to make more informed and quicker business decisions.

With Sales Cloud, your inside sales, marketing, sales rep, and management teams work together in an organized manner to win new deals, develop new relationships with customers, and retain existing customers. A few benefits of using Sales Cloud are as follows:

- A 360-degree view of the customer
- More effective lead management and tracking
- Ability to pipeline the management process
- Standardized quoting and pricing capability
- Quicker access to information related to customers and opportunities
- Ability to streamline and automate business processes using the workflow rule and approval processes
- Reports and dashboard to present a summary of data in front of management employees

The sales cycle starts from **Campaigns** and ends with **Opportunities**. Through campaigns, the organization gets leads; once leads are ready to buy your products, you can covert those leads into accounts, contacts, and opportunities. Once you win those opportunities, the next step is to deliver the order; this is called order management. The following diagram shows the sales life cycle in Salesforce:



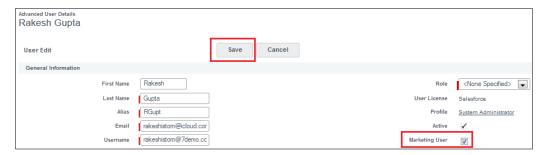
Now let's discuss the following points:

- Campaign management
- Lead management
- Account management
- Contact management
- Opportunity management
- Order management

Campaign management

A campaign is an outbound marketing plan that you want to capture, manage, and track within Salesforce. You can run a campaign through a direct mail program, seminar, print advertisement, e-mail, or other type of marketing initiatives. A campaign is a way to generate leads. In Salesforce, you can also associate leads with a certain campaign, and it can be tracked in future to see how successful the marketing effort was. To create, edit, delete, and configure an advanced campaign setup in Salesforce, the **Marketing User** checkbox on the user's personal information page needs to be selected. To check yours, follow these steps:

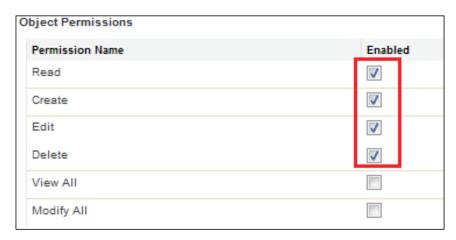
- 1. Navigate to Name | My Settings | Personal | Advanced user details | Edit.
- 2. Select **Marketing User** as shown in the following screenshot:



3. Click on Save.

Setting up the campaign access

By default, all the users have read access to campaigns (if you created your profile by cloning the read-only profile). To create, edit, or delete campaigns, users need to have the **Create**, **Edit**, or **Delete** permissions enabled on their profile, as shown in the following screenshot:



Campaigns - standard fields

Whenever you create a new campaign in Salesforce, your sales and marketing teams should work together to capture all the relevant information related to the customer. Salesforce, by default, comes with a standard field for campaign and campaign member objects, or if your business needs custom fields, you can create those as well in the system.

The following table shows the important standard fields that are available in the campaign object:

Field label	Data type	Description
Active	Checkbox	This field is used to make the campaign either active or inactive. If the campaign is inactive, it will not appear when the user clicks on the campaign lookup available on the lead, contact, and opportunity edit page and reports as well.

Field label	Data type	Description
Actual Cost	Currency (18, 0)	This field is used to capture the amount that you actually spent to run the campaign. This field must be captured to calculate the ROI. The ROI formula is ((Total value won opportunities - actual cost) / actual cost)) * 100
Budget Cost	Currency (18, 0)	This field is used to capture the amount of money that has been budgeted for the campaign.
Campaign Name	Text (80)	This is the name of the campaign. A user can enter a relevant name that marketing and sales team members can easily understand, for example, Packt's 2000th title.
Description	Long text area (32,000)	This field is used to capture detailed information about the campaign.
Expected Response (%)	Percent (8, 2)	This field is used to capture the expected response rate for the campaign.
Expected Revenue	Currency (18, 0)	This field is used to capture the expected revenue from the campaign.
Start Date	Date	This field is used to capture the date when a campaign starts.
End Date	Date	This field is used capture the date when a campaign ends.
Num Sent	Number (18, 0)	This field is used to capture the number of target audience/individuals to whom you will send invites to for this campaign.

Field label	Data type	Description
Type	Picklist	This field is used to capture the type of campaign you are going to run. The picklist values available for this field are as follows:
		 Advertisement
		• E-mail
		 Telemarketing
		 Banner ads
		 Seminar/conference
		 Public relations
		 Public relations
		 Referral program
		• Others
Status	Picklist	This field is used to capture the current status of a campaign. The picklist values available in this field are as follows:
		 In progress
		 Completed
		• Aborted
		• Planned
Total Responses	Number (9, 0)	This field shows the sum of all the campaign members (lead and contact that you added to the campaign as campaign members) who are linked to this campaign and have had their member status set to responded.
Converted Leads	Number (9, 0)	This field shows the number of leads that you successfully converted.

Field label	Data type	Description
Num Total Opportunity	Number (9, 0)	This field shows the total number of opportunities that you would get from running a campaign.
Num Won Opportunity	Number (9, 0)	This field shows the total number of opportunities that you would win.
Total Value Opportunity	Currency (18, 0)	This field shows the value of the total amount of opportunities linked to this campaign.
Total Value Won Opportunity	Currency (18, 0)	This field shows the value of the total amount of closed-won opportunities linked to this campaign.

You can find a complete list of standard and custom fields for campaigns by following the path **Setup** | **Build** | **Customize** | **Campaigns** | **Fields**.

At any time, you can add or delete custom fields for a campaign, but you cannot delete standard fields. You can also add a value to the standard picklist and change the Field-Level Security of fields as well.

Campaign members - standard fields

Once you create a campaign, the next step is to add members to the campaign, like you add contacts or leads. The following table shows the important standard fields that are available in the campaign member's object:

Field label	Data type	Description
Campaign	Lookup (campaign)	This field is used to link campaigns and campaign members.
Contact	Lookup (contact)	This is just a contact name that is used to select the contact in the campaign members. It will then establish a link with the contact name.
Lead	Lookup (lead)	This is just the lead name that is used to select the lead in the campaign members. It will then establish a link with the lead name.

Field label	Data type	Description	
Status	Picklist	This field is used to capture the status of a campaign member for the associated campaign. The values available under this Picklist are as follows:	
		 Responded 	
		• Sent	

You can find a complete list of standard and custom fields for campaign members by following the path $Setup \mid Build \mid Customize \mid Campaign Members \mid Fields$, as shown in the following screenshot:

Campaigi	n Member Fields		
his page allows	you to specify the fields that can appear on the Campaign	Member page. You can create up to 500 Campaign Member	custom fields.
ote that deleting	g a custom field will delete any filters that use the custom fi	ield. It may also change the result of Assignment or Escalatio	n Rules that rely on the custom field da
Campaign Me	mber Standard Fields		
Action	Field Label	Field Name	Data Type
Edit	Campaign	Campaign	Lookup(Campaign)
Edit	City	City	Text(40)
Edit	Company (Account)	CompanyOrAccount	Text(255)
Edit	Contact	Contact	Lookup(Contact)
Edit	Country	Country	Text(80)
	Created By	CreatedBy	Lookup(User)
	Created Date	CreatedDate	Date/Time
Edit	Description	Description	Text(255)
Edit	Do Not Call	DoNotCall	Checkbox
Edit	Email	Email	Email
Edit	Email Opt Out	HasOptedOutOfEmail	Checkbox
Edit	Fax	Fax	Fax
Edit	Fax Opt Out	HasOptedOutOfFax	Checkbox
Edit	First Name	FirstName	Text(40)
Edit	First Responded Date	FirstRespondedDate	Date
	Last Modified By	LastModifiedBy	Lookup(User)
	Last Modified Date	LastModifiedDate	Date/Time
Edit	Last Name	LastName	Text(40)
Edit	Lead	Lead	Lookup(Lead)
Replace Edit	Lead Source	LeadSource	Picklist
Edit	Mobile	MobilePhone	Phone
Edit	Phone	Phone	Phone
Edit	Responded	HasResponded	Checkbox
Replace Edit	Salutation	Salutation	Picklist
Edit	State/Province	State	Text(40)
Replace Edit	Status	Status	Picklist
Edit	Street	Street	Text(255)
Edit	Title	Title	Text(80)
Edit	Zip/Postal Code	PostalCode	Text(20)

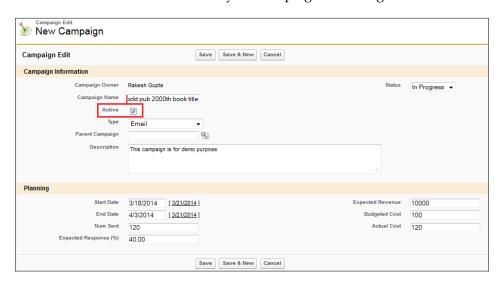
Creating a new campaign

You can create a new campaign in Salesforce using the user interface; alternatively, you can import it from another organization using the import wizard and data loader. Here, we will discuss ways to create a campaign via the Salesforce user interface. To create a campaign, follow these steps:

1. Go to the **Campaigns** tab and click on the **New** button that is available on the top of the page, as shown in the following screenshot:



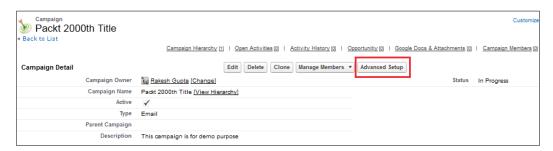
- 2. Fill out all the information in the **Campaign Edit** page. Any field that has a red line next to the box indicates that it is required.
- 3. Select the **Active** checkbox for any new campaign that is going to be used. This will allow users to view your Salesforce campaign. You can always go back to uncheck the box when your campaign is no longer active:



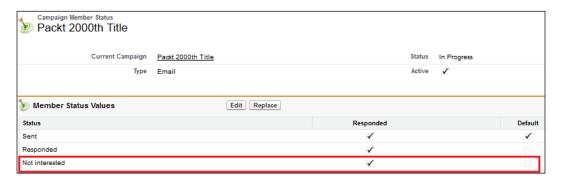
4. Once done, click on **Save**.

Adding values in member status

Once you have created a campaign, the next task is to add the campaign members. Before you proceed, we will learn how to add a value to the **Campaign Member Status** picklist for a specific campaign. By default, a new campaign member had two status values: **Sent** and **Responded**. These are shown in the **Campaign Member Status** picklist. To add/remove the status values of a particular campaign from the **Campaign Detail** page, click on the **Advanced Setup** button as shown in the following screenshot:



It will redirect you to the **Campaign Member Status** page. From here, you can add or remove values from the status picklist for a particular record as shown in the following screenshot:



Now, we have added the value Not interested to the picklist.

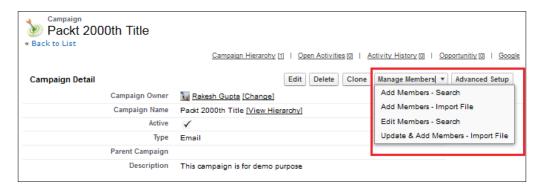


You can have more than one responded value. These are calculated together and displayed under the **Total Responses** field.

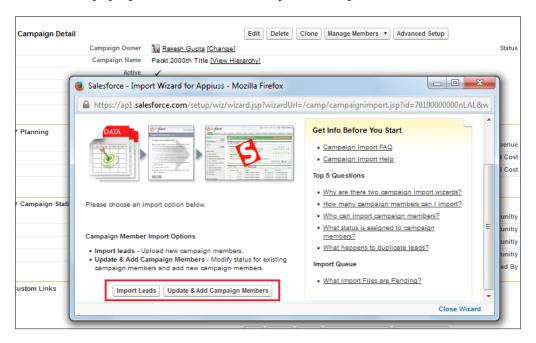
Adding campaign members

To add multiple members to your campaign, perform the following steps:

1. Click on the **Manage Members** drop-down button and select one of the possible options shown in the following screenshot:



- 2. You can add existing contacts or leads by selecting **Add Members Search** from the **Manage Members** drop-down button.
- 3. If you want to add members by importing a file into Salesforce, then click on **Add Members Import File** from the **Manage Members** drop-down button. It will pop up a new window where you can import leads and contacts:



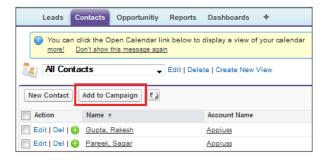
The following are the two options available on the campaign page:

- Lead Import Wizard: This option allows you to import up to 50,000 leads at one time
- **Campaign Update Wizard**: This option allows you to update up to 50,000 existing contacts and leads at one time

You can also add members to your campaign by navigating to the campaign member list available on the campaign detail page.

Adding members from the lead or contact list view

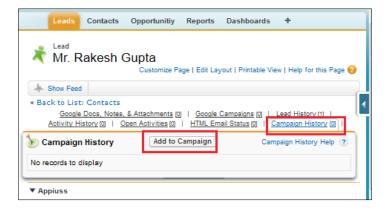
You can add multiple members to a campaign from the lead and contact list view by clicking on the **Add to Campaign** button, as shown in the following screenshot:



You can add a maximum of 250 leads or contacts per page.

Adding members from the lead or contact detail pages

You can also add members to a campaign via the contact or lead detail pages. To do this, navigate to the **Campaign History** list available on the **Lead** detail page and click on the **Add to Campaign** button, as shown in the following screenshot:



You can also use the Apex data loader to add multiple members to the campaign. We will discuss the data loader in *Chapter 7, Concepts of Data Management*.

Lead management

A lead represents a prospect that is interested in buying your product; it is in the form of a potential opportunity or someone who is interested in doing business with your organization. Salesforce provides a way to capture leads from various sources, and you can easily access leads through any device such as your mobile, iPad, and workstation. Let's discuss the following topics:

- Leads standard fields
- Lead business process
- Lead settings
- Creating new leads
- Autoresponse rules
- Assignment rules
- Accepting records from the lead queue
- Lead conversion

Leads - standard fields

The marketing team is responsible for capturing all the relevant information related to leads and then pass it to the sales team. Salesforce, by default, provides standard fields for a lead object, or if your business needs custom fields, you can create those as well for the lead object.

The following table shows the important standard fields that are available in the lead object:

Field label	Data type	Description
Lead Owner	Lookup (User, Queue)	As discussed in <i>Chapter 2, User Management and Organization Administration,</i> the owner of a record should be a user or queue for lead, case, and custom objects. In this field, you select a user or queue to whom you want to assign this lead.

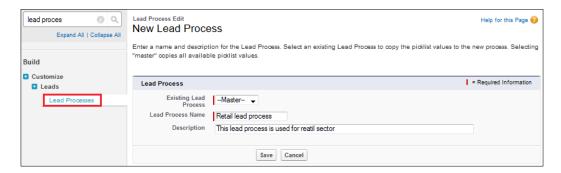
Field label	Data type	Description	
Last Name	Text (80)	This field is used to capture the last name and is a required field. The last name is copied in the Last Name field of a contact record during the lead conversion process.	
Company Name	Text (255)	This field is used to capture the company name and is a required field. The company name is copied to the company name of an account record during the lead conversion process. Note that once a person's account is enabled for an organization, this field is no longer required for the lead.	
Lead Status	Picklist	This field is used to capture the status of a lead and is a required field. The values available under this picklist are as follows:	
		 Contacted 	
		• Open	
		 Qualified 	
		 Unqualified 	
Source	Picklist	This field is used to capture the source of the lead, such as an e-mail, phone, and newspaper. The values available under this picklist are as follows:	
		 Advertisement 	
		• Employee referral	
		• External referral	
		• Partner	
		 Public relations 	
		• Seminar - Internal	
		• Seminar - Partner	
		• Trade show	
		• Web	
		 Word of mouth 	
		 Others 	

You can find a complete list of the standard and custom fields for leads by following the path $Setup \mid Build \mid Customize \mid Leads \mid Fields$, as shown in the following screenshot:

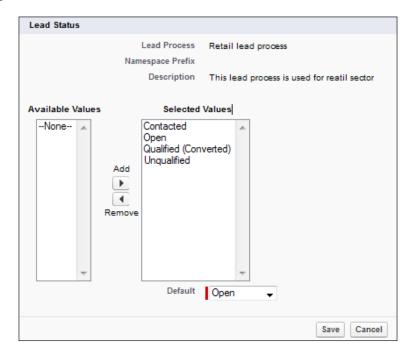
is page allov	ws you to specify the fields that ca	n appear on the Lead page. You can create up to	500 Lead custom fields.
te that delet	ing a custom field will delete any	filters that use the custom field. It may also chang	ge the result of Assignment or Escalation
			Set History Tracking
ead Standa	rd Fields		<u> </u>
Action	Field Label	Field Name	Data Type
	Address	Address	Address
Edit	Annual Revenue	AnnualRevenue	Currency(18, 0)
Edit	Campaign	Campaign	Lookup(Campaign)
Edit	Company	Company	Text(255)
	Created By	CreatedBy	Lookup(User)
Edit	Data.com Key	Jigsaw	Text(20)
Edit	Description	Description	Long Text Area(32000)
Edit	Do Not Call	DoNotCall	Checkbox
Edit	Email	Email	Email
Edit	Email Opt Out	HasOptedOutOfEmail	Checkbox
Edit	Fax	Fax	Fax
Edit	Fax Opt Out	HasOptedOutOfFax	Checkbox
Replace Ed	lit Industry	Industry	Picklist
	Last Modified By	LastModifiedBy	Lookup(User)
Edit	Last Transfer Date	LastTransferDate	Date
Edit	Lead Owner	Owner	Lookup(User,Queue)
Replace Ed	lit Lead Source	LeadSource	Picklist
Replace Ed	lit Lead Status	Status	Picklist
Edit	Mobile	MobilePhone	Phone
	<u>Name</u>	Name	Name
Edit Replac	Salutation	Picklist	
	First Name	Text(40)	
	Last Name	Text(80)	
Edit	No. of Employees	NumberOfEmployees	Number(8, 0)
Edit	Phone	Phone	Phone
Replace Ed		Rating	Picklist
Edit	Title	Title	Text(128)
Edit	Website	Website	URL(255)

Lead business process

You can use various business processes to display different picklist values for users based on their profile. Multiple business processes allow you to track separate lead life cycles. You can create different lead processes that comprise some or all of the picklist values available for the **Lead Status** field. To create/modify a lead process, follow the path **Setup** | **Build** | **Customize** | **Leads** | **Lead Processes** | **New**, as shown in the following screenshot:

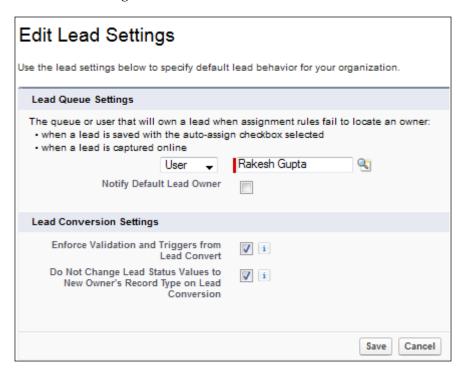


Now, you can assign the picklist values of the lead's status, as shown in the following screenshot:



Lead settings

To enable the Web-to-Lead feature for your organization, you have to configure the lead setting by navigating to **Setup** | **Build** | **Customize** | **Leads Settings** | **Edit**, as shown in the following screenshot:



You can select the default lead owner. This will work only when the assignment rule (which we will discuss later in the chapter) fails. You can also select the **Notify Default Lead Owner** checkbox too. Salesforce gives you the option to deselect the **Enforce Validation and Trigger From Lead Conversion** checkbox, and by default, this checkbox is selected.

Creating new leads

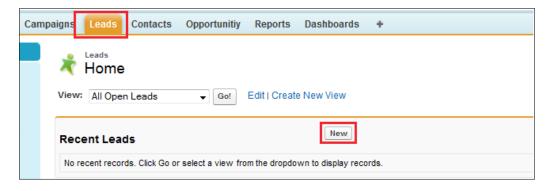
In Salesforce, you can capture a lead from various sources:

- The Salesforce user interface
- Web-to-Lead
- Data loader (we discussed this in *Chapter 2, User Management and Organization Administration*)

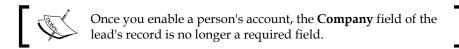
Creating a new lead through the user interface

To create a new lead through the Salesforce user interface, follow these steps:

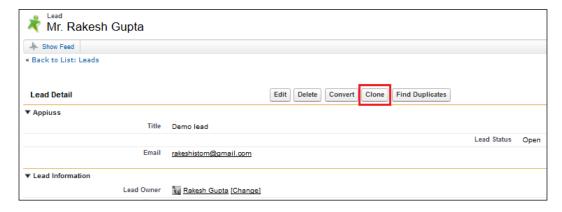
1. Go to the **Leads** tab and click on the **New** button that is available at the top of the page, as shown in the following screenshot:



- 2. Fill out all of the information on the leads' edit page. Any field that has a red line before the box indicates that it is a required field.
- 3. You can also select the campaign you want to relate this lead to.
- 4. Once done, click on Save.



To clone a lead, click on the **Clone** button available on the **Lead Detail** page, as shown in the following screenshot:



Creating a new lead through Web-to-Lead

Web-to-Lead does nothing but captures a lead from the company's website. You have to host a web form (a simple HTML file) on your website, and whenever the form is filled in, its record is automatically created in Salesforce. It's a very easy way to capture a lead and get it in Salesforce without any integration.

Web-to-Lead settings

To enable/disable Web-to-Lead, navigate to **Setup | Build | Customize | Web-to-Lead | Edit**; Salesforce will display a **Web-to-Lead Settings** page as shown in the following screenshot:

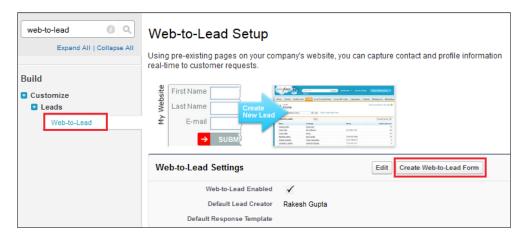


Select the **Web-to-Lead Enabled** checkbox to enable Web-to-Lead. Now, select **Default Lead Creator**. This is the user who will be the default lead owner of the lead when it is captured via a web form. Also, select **Default Response Template**. A better option is to create Web-to-Lead autoresponse rules (which we are going to discuss in the later part of this chapter) to determine which e-mails to send to prospects when they submit the information online. Finally, click on **Save**.

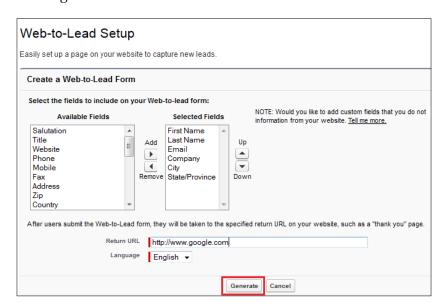
Generating a Web-to-Lead HTML code

To create a Web-to-Lead form, follow these steps:

1. Navigate to Setup | Build | Customize | Leads | Web-to-Lead:



2. Click on the **Create Web-to-Lead Form** button. It will redirect you to a new page where you will have to select a field that you want to display on the Web-to-Lead form. Enter the return URL (the user will be redirected to this URL as soon as he or she submits the Web-to-Lead page on your company's website) and select the same language as the one that appears in the following screenshot:



- 3. Once done, click on the **Generate** button. It will give you some sample code in an HTML format; copy this code and use it as your company's **Contact Us** page or wherever you want.
- 4. Finally, click on the **Finished** button to finish the Web-to-Lead setup.

With the Web-to-Lead feature, you can capture up to 500 leads per day.



By paying an additional cost, you can increase this limit; however, for that, you will have to create a case and contact the Salesforce customer support.

Auto-response rules

An auto-response rule is a way by which you can send a thank you message or a lead registration confirmation e-mail if an individual uses Web-to-Lead to show interest in your business. Auto-response rules work only in the case of Web-to-Lead, and only one auto-response rule can be active at a time; however, you can create a maximum of 50 auto-response rules based on your Salesforce edition. To create an auto-response rule, follow these steps:

- 1. Navigate to Setup | Build | Customize | Leads | Auto-Response Rules | New.
- 2. Enter data in the **Rule Name** field and activate it by selecting the **Set this as the active Web-to-Lead Auto-Response rule** checkbox as shown in the following screenshot:



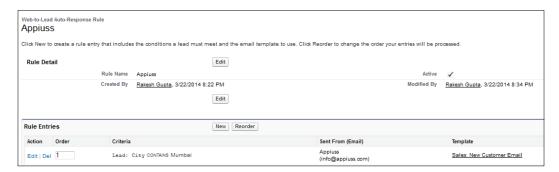
Defining the auto-response rule entries

To define rule entries for the auto-response rule, follow these steps:

1. Go to the auto-response rule detail page that we defined in the previous section, navigate to the **Rule Entries** list, and click on **New** as shown in the following screenshot:



- 2. It will redirect you to the **Rule Entries** edit page where you need to enter a few details as follows:
 - ° **Sort Order**: This is where you enter the number to specify the order in which rule entries will fire
 - Select the criteria for this rule entry: This is where you enter the criteria for which this rule entry will fire
 - Name: This is where you enter the sender's name
 - Email Address: This is where you enter the sender's e-mail address
 - ° **Email Template**: This is where you select the e-mail template
- 3. Click on **Save**.
- 4. Finally, it will look like the following screenshot:





All e-mails count against the organization daily limit of 1,000 mass e-mails.

Assignment rules

It is a common problem to assign leads to local sales teams. Salesforce provides you with a feature called assignment rule. By using it, you can autoassign a lead to the respective user/queue as per your business requirements. Only one assignment rule can be active at a time. The assignment rule works for both Web-to-Lead and leads created through the Salesforce UI. To define an assignment rule, follow these steps:

- 1. Navigate to Setup | Build | Customize | Leads | Assignment Rules | New.
- 2. Enter data in the **Rule Name** field and activate it by selecting the **Set this as the active lead assignment rule** checkbox, as shown in the following screenshot:



3. Click on Save.

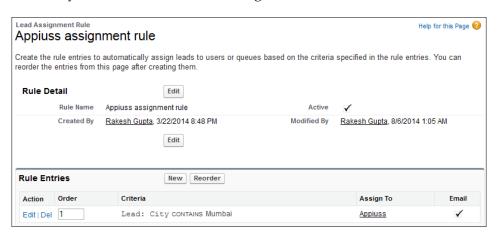
Defining assignment rule entries

To define rule entries for an assignment rule, follow these steps:

1. Go to the autoresponse rule detail page that we defined in the last step (under the assignment rules section), navigate to the **Rule Entries** list, and click on **New** as shown in the following screenshot:



- 2. It will redirect you to the **Rule Entries** edit page where you have to enter a few details as follows:
 - Sort Order: This is where you enter the number to specify the order in which rule entries will fire
 - Select the criteria for this rule entry: This is where you enter the criteria for which this rule entry will fire
 - Select the user or queue to assign the lead to: This is where you select the user or queue as per your requirement
 - ° **Email Template**: This is where you select the e-mail template
- 3. Click on Save.
- 4. Finally, it will look like the following screenshot:

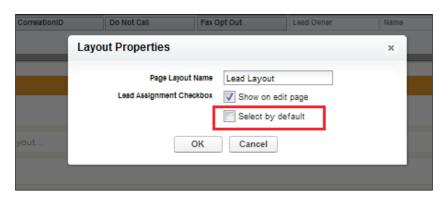


If you create a lead using the Salesforce user interface and you want to assign the lead using an active assignment rule, then you will have to select the **Assign using active assignment rule** checkbox available on the lead edit page, as shown in the following screenshot:



However, the problem is that you have to select this checkbox every time. To overcome this, Salesforce gives you a way to do this, in which you can select this checkbox for a specific page layout. To do this, follow these steps:

- 1. Navigate to Setup | Build | Customize | Leads | Page Layouts.
- 2. Click on the **Edit** link in front of the page layout for which you want to select the **Assign using active assignment rule** checkbox by default.
- 3. Click on **Layout Properties**, and it will pop up a window as shown in the following screenshot:



- 4. Click on the **Select by default** checkbox available under **Lead Assignment Checkbox**.
- 5. Click on **OK** and then click on **Save**.

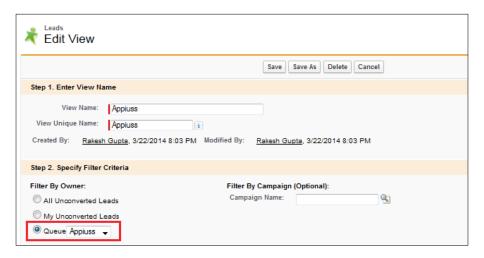
Next time if you create a new or edit an old lead, the **Assign using active assignment rule** checkbox is automatically selected.

Accepting records from the lead queue

Once leads are assigned to a queue, any users from the queue can take ownership of the record by accepting it. Leads remain in the queue until they are assigned or accepted by users. To create a new list view, follow these steps:

- 1. Go to the **Lead** tab, click on **Create new view**, and enter the following details:
 - View Name: This refers to the name that you want to appear in the View drop-down list
 - View Unique Name: This refers to a unique name to be used by the API and managed packages
 - Specify Filter Criteria: This is the filter criteria that you can specify by selecting the queue from the drop-down list
 - Select Fields to Display: This is used to choose up to 15 different fields to display in your view
 - Restrict Visibility: This is used to select the visibility of the view as per the requirement, and you can specify whether everyone or just you can see the custom view

The following screenshot shows the edit page of the list view:





Now you can accept a lead from the queue by using the **Accept** button in the **Appiuss** list view that we created in the last step, as shown in the preceding screenshot.



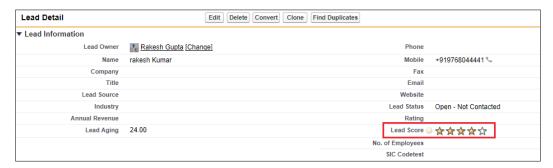
Salesforce automatically creates a lead list view to enable users to access the records in the queue whenever someone creates a lead queue.

Lead conversion

Once a lead is captured in the system, the next step is to convert it. If your organization is creating a thousand leads, then it is a very monotonous job to qualify them and then convert those leads one by one. This is why many organizations use the lead score concept to qualify the leads.

Lead scoring

Lead scoring is nothing but a mechanism to calculate the weightage of the lead based on certain fields. For example, if the lead belongs to a certain city, then you can assign a value between 1-10. If the annual income crosses a threshold value, you can assign a value for this between 1-10. Finally, you can calculate the overall value of the lead. If it's greater than eight, then convert it; otherwise, let it be in the system. It's a required concept of the formula field and we will discuss it in *Chapter 6, Automating a Business Process*. The lead information page will look like the following screenshot:



Lead conversion - mapping lead fields

Standard fields between the lead and contact and account and opportunity objects are automapped by Salesforce for lead conversion. If you want to leverage this functionality for custom fields, then you have to use the map lead fields feature available in the lead object.

To do this, follow these steps:

- 1. Navigate to Setup | Build | Customize | Leads.
- 2. Go to the **Lead Custom Fields & Relationships** list and click on the **Map Lead Fields** button as shown in the following screenshot:



3. In the next window, you will be able to map the fields, and it will look like the following screenshot:



- 4. Once done, click on Save.
- Mapping is required if you create some custom fields required for the account, contact, or opportunity objects. Once done, it will populate the value on those fields (account, contact, or opportunity) at the time of lead conversion.



While mapping the fields, make sure that you map the fields with the correct data type and that it also fulfills the validation rule if any exists in the account, contact, or opportunity.

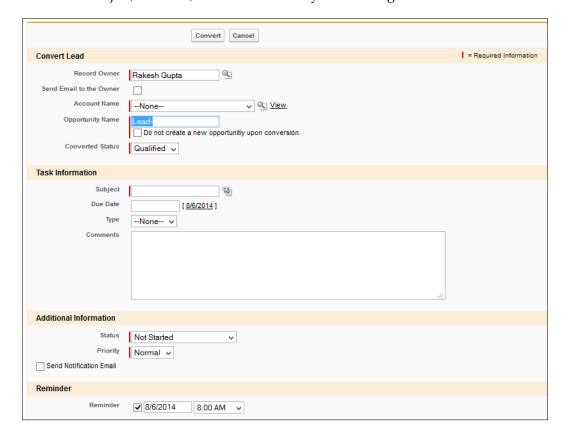
Converting the leads

Upon lead conversion, it will create an account, contact, and optionally, an opportunity. An opportunity is created by lead conversion of the default value in the required field. The opportunity close date is set to the last day of the current quarter and opportunity stage is set to first value of stage picklist. During lead conversion, the amount field in the opportunity field remains blank.

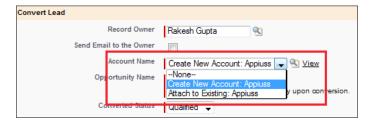
To convert a lead, click on the **Convert** button available on the **Lead Detail** page:



This will redirect you to a new page where you can change the record owner of the new records. You can select the checkbox to send an e-mail notification to the owner. If you don't want to create an opportunity after the lead conversion, then select the **Do not create a new opportunity upon conversion** checkbox as shown in the following screenshot. You can also set the converted lead status and specify values for a new task subject, due date, and comment that you will assign to the record owner:



Before creating any new records, Salesforce tries to match the existing account names with the company name of the lead. Where there is a match, you will have the option to select the existing records, as shown in the following screenshot:



As soon as you click on the **Convert** button, the lead conversion process will be completed, and you will be redirected to a new account page along with the following developments:

- The company name of the lead will become the account name
- The lead's first and last names will become the contact name
- The contact and opportunity associated will become related to the account
- Any campaign related to the lead will now be associated with the opportunity

Once you convert the lead, you will have no access to that lead. The only way to view a converted record is create a lead report, and under the filter option, select **converted equal to true**.



If a person account is enabled for your organization, then the company name of the lead will no longer be a required field. If the lead with an empty company name is converted, it will create a person account (not business account and contact).

Account management

An account in Salesforce represents the customer, competitor, or partner with whom you are doing your business. There are two types of accounts in Salesforce:

- **Business account (B2B)**: This account is enabled for every Salesforce organization. In this type of account, you can store information related to the company. It's also called a business-to-business (B2B) account.
- Person account (B2C): If your company sells an insurance scheme to an
 individual, then you can use this type of account. To enable this account, you
 have to raise a case with Salesforce, and they will enable this feature for you.

Accounts - standard fields

Both business and person accounts offer the same features and fields, but there are certain field differences, such as the one found in a person account: the **Reports To**, **Parent Account**, or **Account Hierarchy** fields are not available. A person account counts against both account and contact.

The following table shows the important standard fields that are available in the account object:

Field label	Data type	Description
Account name	Name	This field is used to capture the account name. It's just the company name for whom you are creating an account in the system. Here, you should always use a meaningful full name that everyone in the organization can easily understand.
Type	Picklist	Here, you have to select the type of account, such as whether it's a partner, investor, competitor, reseller, prospect, or customer type of account.
Website	URL (255)	This field is used to capture the company's website URL.
Industry	Picklist	This picklist states the industry in which the account belongs.
Annual revenue	Currency (18, 0)	This field is used to capture the annual revenue of the company.
Billing address	Address	This field is used to capture the company's billing address.
Shipping address	Address	This field is used to capture the company's shipping address.
Employees	Number (8, 0)	This field is used to capture the number of employees in the organization.

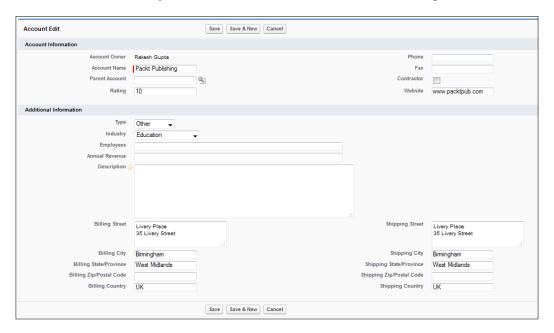
You can find a complete list of standard and custom fields for accounts by following the path $Setup \mid Build \mid Customize \mid Accounts \mid Fields$, as shown in the following screenshot:

ccour	nt Fields		
is page all	lows you to specify the fields that can ap	ppear on the Account page. You can create up to 500 Account cust	om fields.
te that del	leting a custom field will delete any filte	ers that use the custom field. It may also change the result of Assign	ment or Escalation Rules that rely on the
		Set Histo	ory Tracking
ccount St	tandard Fields	JET 1134	ny macking
ction	Field Label	Field Name	Data Type
CHOII	Account Name	Name	Name
Edit	Account Number	AccountNumber	Text(40)
Edit	Account Owner	Owner	Lookup(User)
Edit	Account Record Type	RecordType	Record Type
Edit	Account Site	Site	Text(80)
	Edit Account Source	AccountSource	Picklist
epiace t	Annual Revenue	AnnualRevenue	Currency(18, 0)
Luit	Billing Address	BillingAddress	Address
	Created By	CreatedBy	Lookup(User)
Edit	Customer Portal Account	IsCustomerPortal	Checkbox
Edit	Data.com Key	Jigsaw	Text(20)
Edit	Description	Description	Long Text Area(32000)
Edit	Employees	NumberOfEmployees	Number(8, 0)
Edit Edit	Fax	Fax	Fax
	_	Industry	Picklist
kepiace t	Edit Industry Last Modified By	LastModifiedBy	Lookup(User)
		•	Picklist
	Edit Ownership	Ownership	
Edit	Parent Account	Parent	Lookup(Account)
Edit	Phone P. C.	Phone	Phone
Replace B	Edit Rating	Rating	Picklist
	Shipping Address	ShippingAddress	Address
Edit	SIC Code	Sic	Text(20)
Edit	SIC Description	SicDesc	Text(80)
Edit	Ticker Symbol	TickerSymbol	Content(20)
Replace I F	Edit <u>Type</u>	Type	Picklist

Creating a new account

You can create accounts in Salesforce using its user interface, or you can import it from another organization using the import wizard and data loader. Here, we will discuss ways to create an account from the Salesforce user interface. To create an account, follow these steps:

- 1. Go to the **Accounts** tab and click on the **New** button that is available at the top of the page.
- 2. Fill in all the required information, as shown in the following screenshot:



3. Click on Save.

Contact management

Contact management is a way to maintain the key-decision maker or individual contact information of an account in Salesforce. Sales and marketing people often need it as they have to visit the company and give a demo about your product to finalize the deal. Salesforce provides a way to create, edit, delete, and view your contact in one place. You can store contact information such as the first and last names, account name, billing or shipping address, phone number, fax, and e-mail address.

You can create a contact in Salesforce using its user interface, or you can import it from another organization using the import wizard and data loader. To create an account, follow these steps:

- 1. Go to the **Contact** tab and click on the **New** button that is available at the top of the page.
- 2. Fill in all the essential information, such as **Last Name**, **Company Name**, **Email address**, **Phone**, and so on.
- 3. Click on **Save**.

Opportunity management

Opportunity management is a revenue-generating event. By adding deals into Salesforce, it will help you to build a strong pipelining and forecasting feature. An opportunity is also called a deal.

Opportunity – standard fields

The following table shows the important standard fields that are available in the opportunities object:

Field label	Data type	Description	
Account name	Lookup (Account)	This field is used to capture the account name for which you are creating an opportunity.	
Amount	Currency (16, 2)	This field is to capture the amount of the opportunity.	
Close Date	Date	This field is to capture the probable closing date of the deal.	
Stage	Picklist	This field is used to capture the current status of the deal. The values available under this picklist are as follows:	
		 Prospecting 	
		Qualification	
		Needs Analysis	
		Value Proposition	
		ID Decision Makers	
		 Closed Won 	
		 Closed Lost 	
		Negotiation/Review	
		Proposal/Price Quote	
		Perception Analysis	

Field label	Data type	Description
Probability (%)	Percent (3, 0)	This field is autopopulated based on the
		stage you select, but you can change the probability (percent) any time by editing opportunity records.
Opportunity name	Text (120)	This field is used to capture the name of the opportunity. You can enter a maximum of 120 characters.

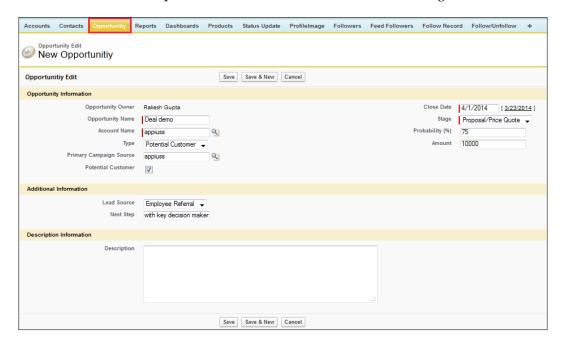
You can find a complete list of standard and custom fields for an opportunity by following the path **Setup** | **Build** | **Customize** | **Opportunities** | **Fields**, as shown in the following screenshot:

Opport	unity Fields		
his page all	lows you to specify the fields that can appear on t	he Opportunity page. You can create up to 500 Opportunity cus	stom fields.
lote that del	eting a custom field will delete any filters that use	e the custom field. It may also change the result of Assignment	or Escalation Rules that rely on the custom field data
		Set History Tra	cking
Opportunit	ty Standard Fields	ott mady ma	
	-		
Action	Field Label	Field Name	Data Type
Edit	Account Name	Account	Lookup(Account)
Edit	Amount	Amount	Currency(16, 2)
Edit	Close Date	CloseDate	Date
	Created By	CreatedBy	Lookup(User)
Edit	Description	Description	Long Text Area(32000)
Edit	Expected Revenue	ExpectedRevenue	Currency(16, 2)
Edit	Forecast Category	ForecastCategoryName	Picklist
	Last Modified By	LastModifiedBy	Lookup(User)
Replace B	Edit Lead Source	LeadSource	Picklist
Edit	Next Step	NextStep	Text(255)
Edit	Opportunity Name	Name	Text(120)
Edit	Opportunity Owner	Owner	Lookup(User)
Edit	Primary Campaign Source	Campaign	Lookup(Campaign)
Edit	<u>Private</u>	IsPrivate	Checkbox
Edit	Probability (%)	Probability	Percent(3, 0)
Edit	Quantity	TotalOpportunityQuantity	Number(18, 2)
Replace B	Edit Stage	StageName	Picklist
Renlane I F	Edit Type	Type	Picklist

Creating a new opportunity

You can create an opportunity in Salesforce using its user interface, or you can import it from another organization using the data loader. Here, we will discuss ways to create an opportunity through the Salesforce user interface. To create an account, follow these steps:

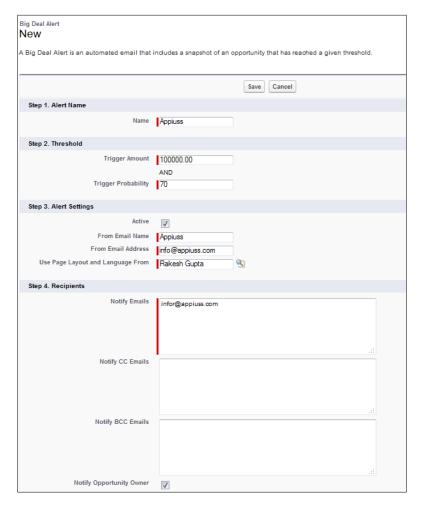
- 1. Go to the **Opportunity** tab and click on the **New** button that is available at the top of the page.
- 2. Fill in all the required information, as shown in the following screenshot:



Big deal alert

A big deal alert is an automated e-mail that contains a snapshot of an opportunity that has touched a given threshold. You can set your threshold by entering a trigger amount and probability. The e-mail will be sent when both the triggers are met or exceeded. To create a big deal alert for your organization, follow these steps:

- 1. Navigate to Setup | Build | Customize | Opportunities | Big Deal Alert.
- 2. Fill in all the fields such as **Trigger Amount**, **Trigger Probability**, **From Email Address**, **From Email Name**, **Notify Emails**, and so on as shown in the following screenshot:





You can create only one big deal alert for your organization.

Order management

As soon as you win a deal, the next step is to ship the order and track the order delivery. In Spring'14, Salesforce announced a new feature called order management. Now, you can manage an order within Salesforce. Here, you can create, delete, activate, deactivate, delete, and reduce an order. The orders feature is available in the Developer, Performance, Enterprise, Professional, and Unlimited editions of Salesforce. Reduction in the order feature is available in the Developer, Performance, Enterprise, and Unlimited editions of Salesforce.

Enabling orders

To enable order management for your organization, follow these steps:

- 1. Navigate to Setup | Build | Customize | Orders | Settings.
- 2. Select the **Enable Orders** checkbox as shown in the following screenshot:



Orders – standard fields

The following table shows the important standard fields that are available in the orders object:

Field label	Data type	Description	
Account Name	Lookup (account)	This field is used to capture the account name for which you are creating orders.	
Order Start Date	Date	This field is used to capture the order effective date.	
Contract Number	Lookup (contract)	This field is used to capture the contract details.	
Status	Picklist	This field is used to capture the current status of the order. The values available under this picklist are as follows:	
	• Draft		
		 Activated 	
Billing Address	Address	This field is used to capture the company's billing address.	
Shipping Address	Address	This field is used to capture the company's shipping address.	

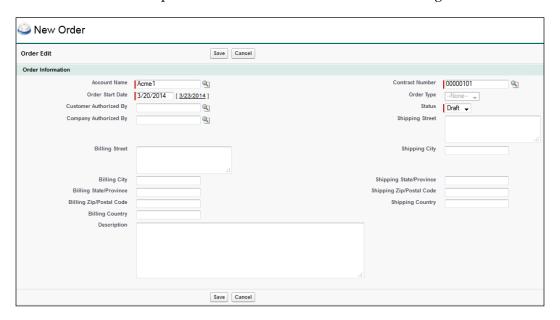
You can find a complete list of standard and custom fields for an opportunity by following the path $Setup \mid Build \mid Customize \mid Orders \mid Fields$, as shown in the following screenshot:

rder F		n the Order page. You can create up to 100 Order cu	stom fields.
te that dele	ting a custom field will delete any filters that	use the custom field. It may also change the result of	Assignment or Escalation Rules that re
			Set History Tracking
rder Stand	dard Fields		
ction	Field Label	Field Name	Data Type
dit	Account Name	Account	Lookup(Account)
dit	Account Number	AccountNumber	Text(40)
dit	Activated By	ActivatedBy	Lookup(User)
Edit	Activated Date	ActivatedDate	Date/Time
	Billing Address	BillingAddress	Address
dit	Bill To Contact	BillToContact	Lookup(Contact)
dit	Company Authorized By	CompanyAuthorizedBy	Lookup(User)
dit	Company Authorized Date	CompanyAuthorizedDate	Date
dit	Contract End Date	ContractEndDate	Date
dit	Contract Name	ContractName	Text(80)
dit	Contract Number	Contract	Lookup(Contract)
	Created By	CreatedBy	Lookup(User)
dit	Customer Authorized By	CustomerAuthorizedBy	Lookup(Contact)
dit	Customer Authorized Date	CustomerAuthorizedDate	Date
Edit	<u>Description</u>	Description	Long Text Area(32000
	Last Modified By	LastModifiedBy	Lookup(User)
dit	Order Amount	TotalAmount	Currency(18, 2)
dit	Order End Date	EndDate	Date
Edit	Order Name	Name	Text(80)
	Order Number	OrderNumber	Auto Number
dit	Order Reference Number	OrderReferenceNumber	Text(80)
dit	Order Start Date	EffectiveDate	Date
eplace Ed	dit Order Type	Type	Picklist
dit	PO Date	PoDate	Date
Edit	PO Number	PoNumber	Text(80)
	Shipping Address	ShippingAddress	Address
dit	Ship To Contact	ShipToContact	Lookup(Contact)
eplace E		Status	Picklist

Creating a new order

You can create a new order in Salesforce using its user interface, or you can import it from another organization using the data loader. Here, we will discuss ways to create an order via the Salesforce user interface. To create an account, follow these steps:

- 1. Go to the **Orders** tab and click on the **New** button that is available at the top of the page.
- 2. Fill in all the required information, as shown in the following screenshot:



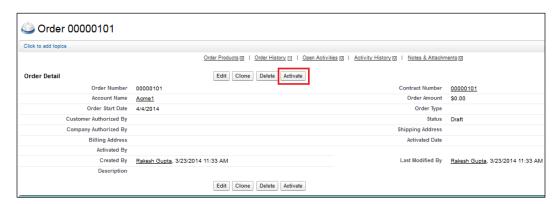
3. Click on Save.



To create an order for an account, at least an active contract of that account is required. The order's start date can't be earlier than the contract's start date.

Activating an order

To activate an order, go to the **Orders Detail** page and click on the **Activate** button, as shown in the following screenshot:





To activate or deactivate orders, users must have the **Activate Orders** user permission. An order must have order products before it can be activated.

Service Cloud overview

Service Cloud is a product designed to automate your support process. By implementing this, an organization can boost its support process. This includes case, knowledge base, article management, entitlement, and many more features. Service Cloud includes everything that you need to make your support process faster.

Service Cloud can support your business purposes if you are looking for a solution to provide a call center setup, case management, service contract; additionally, you can track the day-to-day work of a support agent. It will help you close a case faster and make your customer happier.

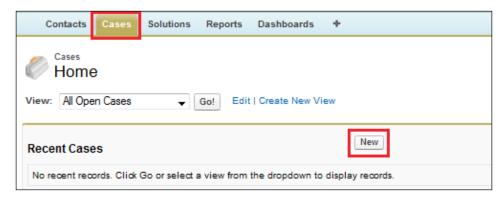
Case management

Salesforce provides a number of ways to capture a case:

- Creating a case manually
- Using an Apex data loader (discussed in Chapter 7, Concepts of Data Management)
- Using Email-to-Case
- Using Web-to-Case

Creating a case manually

If a support agent wants to create a case manually, then he or she can go to the **Cases** tab, which is available at the top of the page, and click on the **New** button as shown in the following screenshot:



Fill in all the required information and click on **Save**.

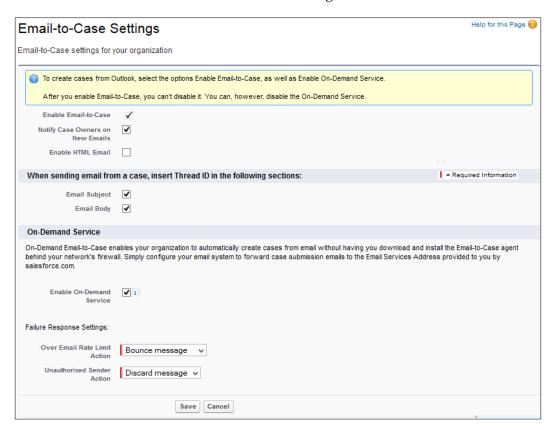
Email-to-Case

Email-to-Case provides a way to create a case when an e-mail is sent to a predefined e-mail address. Let's take an example. A universal container is an Appiuss customer, and Appiuss wants to leverage the Email-to-Case feature for the universal container so they can create a case from the mail, instead of calling a support agent.

Email-to-Case setting

First of all, you have to enable Email-to-Case for your organization. To do this, follow these steps:

- 1. Navigate to Setup | Build | Customize | Cases | Email-to-Case.
- 2. Click on **Edit** and enable this feature. Also, select the **Enable On-Demand Service** checkbox as shown in the following screenshot:



3. Click on Save.

Setting up routing addresses

Now, the next step is to set up a routing e-mail address to which the user will send an e-mail to create a case using the Email-to-Case feature. Follow these steps to set up the routing address:

- 1. Navigate to Setup | Build | Customize | Cases | Email-to-Case.
- 2. Go to the **Routing Addresses** list and click on **New** as shown in the following screenshot:



3. Fill in the required information such as Routing Name, Email address (e-mail address from where the e-mail is to be sent), Case Priority, and Case Origin, as shown in the following screenshot:



4. Click on Save.

5. Now, Salesforce will send an e-mail notification with the verification link to the address you mentioned in the last step. Once verified by the end user, it is ready to use:

Email Services Address admin@0-2nziks64hak4yk0vsmu3ohxs73icbq9i1ceswuf2z06lwha2ju.9-ngyheay.ap1.case.salesforce.com

From the next time, whenever the universal container wants to raise a case with Appiuss, he or she has to send an e-mail to **Email Service Address** from the address that we mentioned in the routing e-mail address.

Web-to-Case

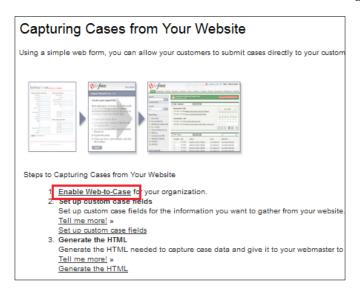
Unlike the Web-to-Lead service that is used to capture a lead online, Salesforce provides another feature to capture a case from the Web using Web-to-Case. For example, Appiuss want to capture a case in Salesforce whenever the customer submits a support request from their website support page. To do this, follow these steps:

- 1. Enable Web-to-Case.
- Generate an HTML code.
- 3. Use the code in your support page available on your website.

Enabling Web-to-Case

To enable Web-to-Case, follow these steps:

- 1. Navigate to Setup | Build | Customize | Cases | Web-to-Case.
- 2. Click on the **Enable Web-to-Case** link as shown in the following screenshot:



3. It will redirect you to a new page where you can enable this service by selecting the **Web-to-Case Enabled** checkbox. You can also select **Default Response Template** and **Default Origin**:

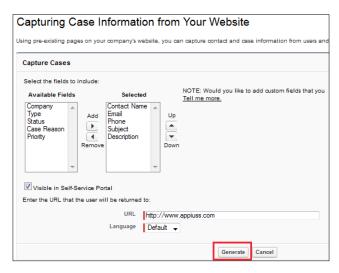


4. Click on Save.

Generating an HTML code

To generate an HTML code for Web-to-Case, follow these steps:

- 1. Navigate to Setup | Build | Customize | Cases | Web-to-Case.
- 2. Click on the **Generate the HTML** link. It will redirect you to the **Capturing Case Information from Your Website** page.
- 3. Select the field that you want to display in the **Web-to-Case** page, Enter the redirected URL as shown in the following screenshot:



- 4. Once done, click on the **Generate** button to generate the HTML code.
- Now, use this code in the Company Support page or wherever your organization wants.

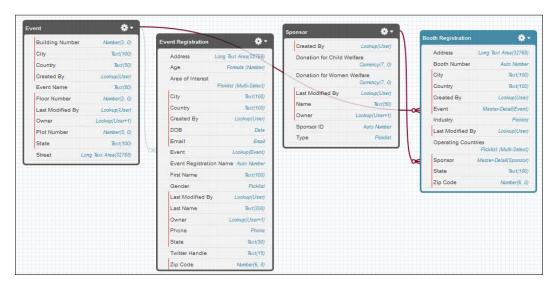


Streamlining a business process

Salesforce comes with many standard objects, but if your requirement is not fulfilled by using them, you can go ahead and create custom objects.

Creating a custom object

In Salesforce, database tables are treated as objects. These objects have fields, and any type of app that is built in Salesforce relies on it. We will now be developing a sample **Event Management** app for the company Appiuss that is going to organize an event for women and child welfare, where companies across the globe will be able to set up their booths to market themselves. This will allow local communities or people to participate in events for free, and the companies will sponsor this event. We will be building the following database model throughout the book from now on:

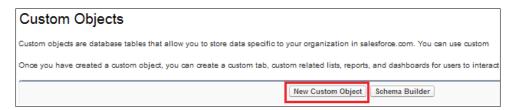


The Event object will have a one-to-many relationship with the Event Registration object, and the Sponsor object will have a one-to-many relationship with the Booth Registration object. The Booth Registration object works as a junction object for the Event and Sponsor objects. Let's start by creating an Event object. To do this, follow these steps:

1. Navigate to **Setup** | **Build** | **Create** | **Objects** as shown in the following screenshot:



2. Click on the **New Custom Object** button as shown in the following screenshot:



- 3. Enter all the details under the **Custom Object Information** section, where you have to enter values in the following fields:
 - ° Label: This is the label of the object's definition. This label is used on page layouts and reports. Here, we used Event as the label of this object.
 - Plural Label: This is used in Salesforce's object tabs. In this case, we have used Events as the plural label.
 - Start with Vowel: This is used to check whether the label starts with a vowel sound and should be preceded by **an** instead of **a**.

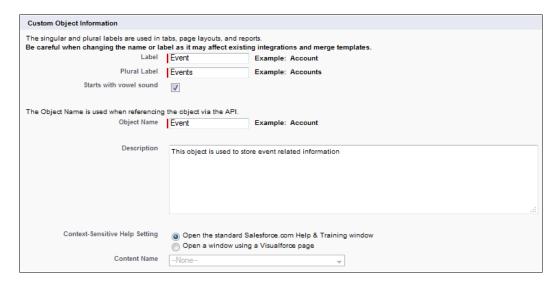
Object name: This is denoted by T or the Apex code. This is nothing but the API name of the object that you have to use when you have to use it from anywhere in the formula or Apex code. For a custom object, Salesforce automatically appends __c with the object name. Finally, the event object name will look like event__c.



The object name must be unique, begin with a letter, not include spaces, not end with an underscore, and not contain two consecutive underscores.

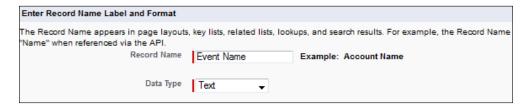
- Description: Always use a meaningful full name so other developers can easily understand why this object is created.
- ° Context-Sensitive Help Setting: Salesforce provides a standard help page for all custom objects. If you want to overwrite it for the custom object, then you have to choose Open a window using a Visualforce page option.
- ° Content Name: This is where you can select the Visualforce page that will open when you click on the Help link.

Finally, the **Custom Object Information** section will look like this:



Next, fill the Record Name Label and Format section.

4. Under Enter Record Name Label and Format enter Event Name under Record Name and select Data Type as Text, as shown in the following screenshot:



- 5. Now, select the available optional features mentioned as follows:
 - Allow Reports: This option will allow you to create a report in the Event object. If it is not selected, then you can't create a report in this object.
 - Allow Activities: This feature allows the user to add a task and event in the object records. If this checkbox is selected, the Open Activities and Activity History list will be autoadded to the page's layout.
 - Track Field History: This feature allows you to track the records of a specific object when the field value changes. Once this checkbox is selected, it will capture both the old and new values for the Field Under Object History list. We will discuss more about this in the field-history-tracking section.
 - Oeployment Status: This option is used to deploy a specific object. When the In development section is selected, only the system administrator can access these objects. To deploy this, select the Deployed option.
- 6. Click on Save.

As soon as you create custom objects, Salesforce automatically creates a few standard fields such as **Created By**, **Last Modified By**, **Owner**, and **Event Name** in it. You cannot delete standard fields from Salesforce, such as **CreatedBy** and **LastModifiedBy**. These are audit fields that are automatically calculated by Salesforce. For the Event object, it will look like this:





If you want to edit audit fields, you have to contact Salesforce's support team by raising a case.

In a similar fashion, you can create three extra objects with the following details:

Object	Record name	Data type	
Event Registration	Registration ID	Auto Number	
		(Format ER-{0000})	
Sponsor	Sponsor ID	Auto Number	
		(Format S-{0000})	
Booth Registration	Booth Number	Auto Number	
		(Format B-{0000})	

Tab creation

To view the records related to objects, we need to have a tab associated to that object. Without this, you cannot create records in Salesforce using the native Salesforce user interface.

Salesforce allows you to browse records in a tabbed manner. In Salesforce, tabs are ways to navigate records. You can create, manage, edit, and delete records after clicking on the tabs. You need to create a tab and associate it with an object so that you can create records of it from the Salesforce standard UI. There are three types of tabs in Salesforce as follows:

- Custom Object tabs: This type of tab is used to associate with a custom
 object so that you can display custom object records in the user interface
- **Web tabs**: This type of tab is used to display any external web-based application or web page in a Salesforce tab
- **Visualforce tabs**: This type of tab is used on the Visualforce page

For example, you want to create a tab for the newly created Event object in Salesforce; to do this, follow these steps:

- 1. Navigate to **Setup** | **Build** | **Create** | **Tabs**.
- 2. Go to the **Custom Object Tabs** section and click on the **New** button as shown in the following screenshot:



3. Select the **Event** object from the list of objects as shown in the following screenshot:



4. Now, select **Tab Style** by clicking on the magnifying glass icon as shown in the following screenshot:



5. You will see a pop-up browser window that will ask you to select a tab style:



6. Click on any style you want (here, we are selecting the heart style). Once selected, the pop up will disappear. Enter a short description, and finally, it will look like the following screenshot:



- 7. Click on **Next**. On the next screen, keep the default values of all the profiles and again click on **Next**.
- 8. Finally, you can choose the app you want to add this tab to. Once done, click on **Save**.

In a similar fashion, you can create tabs for the remaining three objects.

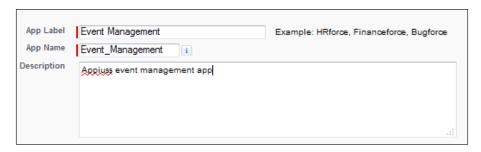
App creation

An app is nothing but a combination of tabs. Now, we will create an app for our own event management. To do this, follow these steps:

- 1. Navigate to **Setup** | **Build** | **Create** | **Apps**.
- 2. Click on the **New** button:



- 3. This will redirect you to a new screen where you have to select the application type **Custom App** and click on **Next**.
- 4. Now when you enter data in the **App Label** field, **App Name** will be automatically populated based on the app label. Enter the description as shown in the following screenshot:



5. Click on **Next**. Salesforce provides you with a way to brand your app using the company or event logo. To do to this, click on the **Insert an Image** button to use your own logo; however, you will have to first upload the logo into the document tab and then you will be able to use it:

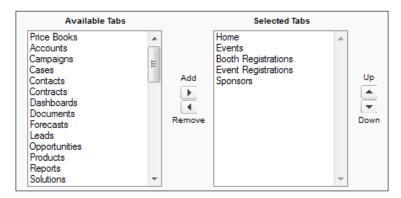




The file size of a custom app logo must be smaller than 20 KB.

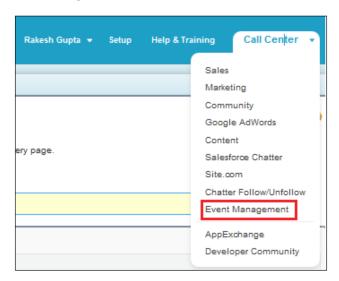
6. Let the image be the default Salesforce image and click on **Next**.

7. Now, you can add a tab into your app. To do this, move the tabs from **Available Tabs** to **Selected Tabs** as shown in the following screenshot:



- 8. Use the up and down buttons to order the tabs.
- 9. Click on **Next** and select the profile visibility for this app.
- 10. Click on Save.

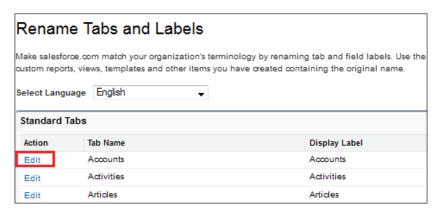
Now, in order to navigate to your app, in the upper-right corner of the screen, click on the app dropdown as shown in the following screenshot. Then, click on the app name, **Event Management**:



Renaming standard tabs and labels

To change standard object tabs and field labels, follow these steps:

- 1. Navigate to Setup | Build | Customize | Tab Names and Labels | Rename Tabs and Labels.
- Click on the Edit link available in front of the object name, in our case, Accounts as shown in the following screenshot:



3. It will redirect you to a new page where you can change the singular and plural name:



4. In the next window, you can change the standard field's label. Once done, click on **Save**.

The significance of various field types in Salesforce

Every database comprises some columns or fields to store values related to the database table. In Salesforce, every object comprises its fields. The following table shows the data type fields available in Salesforce in detail:

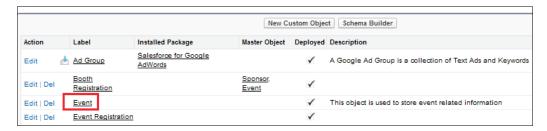
Data type	Description
Autonumber	This field is an autoincrement field; you need to define its format and the starting value once. For example, in an Event Registration object, you want to add an autonumber field called Registration ID. You can do this by providing the format ER-{00000} with the starting value as 1. Now the records will be created automatically with the Registration ID ER-00001 and so on.
Formula	Based on the formula expression defined at the time of adding this field to an object, this field will populate the value. This is a read-only field.
Rollup summary	This field is only available for the master object in a master- detail relationship. By using this field, you can perform the following operations based on child object records:
	 SUM: This is the sum of all the child-records- specified fields.
	 MIN: This populates the minimum value from the child-records-specified field.
	 MAX: This populates the maximum value from the child-records-specified field.
	 COUNT: This populates the number of child records available to the master. This is read-only field.
Lookup relationship	This field is used to define the lookup relationship between the objects.
Master-detail relationship	This field is used to define the master-detail relationship between the objects.
Checkbox	This field is used to define a checkbox, which can contain only one type of value, that is, check (true) or uncheck (false).
Currency	This field is used to store the currency in decimals.
Date	This field is used to store the date.
Date/time	This field is used to store the date with a timestamp.
E-mail	This is an e-mail field used to store e-mail addresses.

Data type	Description	
Geolocation	This field stores the geo location coordinates to show a particular location on the map.	
Number	This field is used to store numeric values.	
Phone	This field is used to store phone numbers.	
Percent	This field is able to store the percentage with decimal values, and it automatically appends the % suffix to the value entered.	
Picklist	This field is used to store multiple predefined values from which the user has to select any one.	
Picklist (Multi-Select)	This field is used to store multiple predefined values from which the user can choose multiple values or all of them.	
Text	This field can hold text up to a defined length.	
Text area	This field can hold text of a length of 255 characters with separate lines.	
Text area (long)	This field can hold text up to a length of 32,768 characters with separate lines.	
Text area (rich)	This field can hold text up to a length of 32,768 characters and images, and it allows you to use the formatting option.	
Text (encrypted)	This field can be used to enter text that is sensitive, for example, credit card details.	
URL	This field can be used to store the website's URL.	

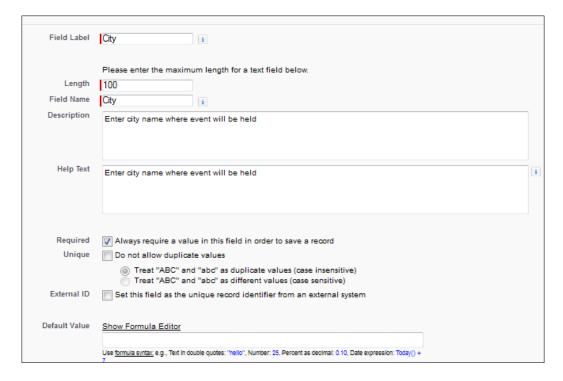
Adding fields to objects

Now, we will create a custom field called city (the data type will be text and the length will be 100 characters) in an Event object. To do this, follow these steps:

- 1. Navigate to Setup | Build | Create | Objects.
- 2. Go to the **Event** object and then go to the event object detail page by clicking on the **Event** label as shown in the following screenshot:



- 3. Navigate to the **Custom Fields & Relationships** section and click on the **New** button.
- 4. Select the data type as **Text** and click on **Next**.
- 5. This will redirect you to a new window where you have to enter **Field Label**, **Length**, **Field Name** (this will be autopopulated from the field label, and Salesforce will append __c), **Description**, and **Help Text** (so whenever a user hovers over it, they will get the information they need to enter in this field). You can also set the field as required by selecting the **Required** checkbox. You also have the option to make the field **Unique** and set it as **External ID**; additionally, you can enter a default value in this field, as shown in the following screenshot:



- 6. Click on **Next** and set the field-level visibility for our app and let it be.
- 7. Click on Save.

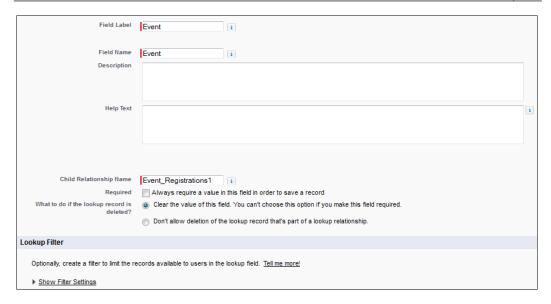
Adding relationships to objects

Now, we will create a relationship between an Event and Event Registration object. We will create a lookup relationship where Event will act as a parent and Event Registration will work as a child. To do this, follow these steps:

- 1. Navigate to Setup | Build | Create | Objects.
- 2. Navigate to the **Event Registration** object and then go to the object detail page by clicking on the **Event Registration** label.
- 3. Navigate to the **Custom Fields & Relationships** section and click on the **New** button.
- 4. Select the field data type **Lookup Relationship**.
- 5. Click on **Next**, and now in the field **Related to**, select the master object that you want to associate this object with. Here, select **Event** as shown in the following screenshot:



- 6. Enter data in the **Field Label**, **Field Name** (later on, this will be used as an API name), **Description**, **Help Text**, **Child Relationship Name**, **Required**, and **What to do if the lookup record is deleted?** fields.
- 7. Optionally, you can set the lookup filter. Whenever a user clicks on this field in the event registration record, you can filter out a value; for example, the user can only see the event that is created by the system administrator, Sagar Pareek:



- 8. Click on **Next** and set the profile visibility for this relationship field. Let this be the default setting and click on **Next**.
- 9. Add this field to the available page layout.
- 10. Add the event registration to the related list on the event page and click on **Save**.

Event

You can use the following table to practice adding fields and relationships to all the objects used in this app development:

Field type	Label	Length/Values	Required
Number	Plot Number	3 (0- Decimal Places)	Yes
Number	Building Number	3 (0-Decimal Places)	Yes
Number	Floor Number	2 (0-Decimal Places)	Yes
Text (Long)	Street	32,768	
Text	City	100	
Text	State	100	Yes
Text	Country	100	Yes

Event Registration

The following fields can be added to the Event Registration object:

Field Type	Label	Length/Values	Required
Text	First Name	200	No
Text	Last Name	200	Yes
Phone	Phone		
Email	Email		Yes
Text	Address		Yes
Text	City		Yes
Text	State		Yes
Text	Country		Yes
Number	Zip Code	6 (0 Decimal Places)	Yes
Picklist	Gender	• Male	No
		 Female 	
Text	Twitter Handle	15	No
Picklist (Multi-Select)	Area of Interest	 Technology 	
		 Sports 	
		 Boating 	
		 Dancing 	
		 Singing 	
Lookup	Event	0 0	Yes
Date	DOB		Yes
Formula (Return Type Number)	Age		

Sponsor

The following fields can be added to the Sponsor object:

Field type	Label	Length/Values	Required
Formula	Amount		Yes
Text	Name	200	Yes
Picklist	Type	 Silver 	Yes
		• Gold	
		• Platinum	

Field type	Label	Length/Values	Required	
Currency	Donation for child welfare		Yes	
Currency	Donation for women welfare		Yes	

Booth Registration

The following fields can be added to the Booth Registration object:

Field type	Label	Length/Values	Required
Text	City		Yes
Text	State		Yes
Text	Country		Yes
Number	Zip Code		Yes
Picklist	Industry	• IT	Yes
		 Telecom 	
		 Retail 	
		 Marketing 	
		 BPO 	
		 Aviation 	
		 Food Supply 	
		 Fashion 	
		 Child Welfare 	
		• Women Welfare	
Picklist	Operating	• India	Yes
(Multiselect)	Countries	• USA	
		• Canada	
		• Japan	
		• UK	

Page layout

Page layout helps you to organize any object's detail and edit page view. By using page layout, you can add or remove fields from the detail page; organize the related lists; add custom buttons, links, and actions; and organize the fields in a section. To edit the page layout of any custom object, follow these steps:

- 1. Navigate to **Setup** | **Build** | **Create** | **Objects**.
- 2. Navigate to the Event object and then go to the object detail page by clicking on the **Event** label.
- 3. Under the **Page Layouts** section, click on **Edit** in front of **Event Layout**, as shown in the following screenshot:

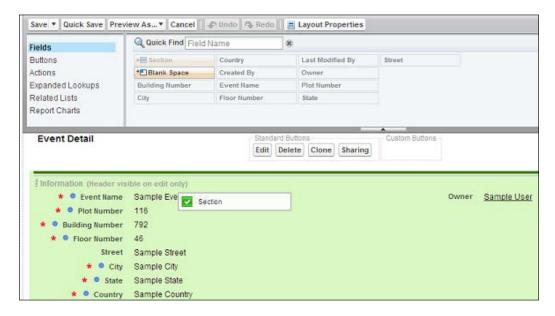


4. Now you will be redirected to the advanced layout editor screen where you will see the following palette at the top of the page:

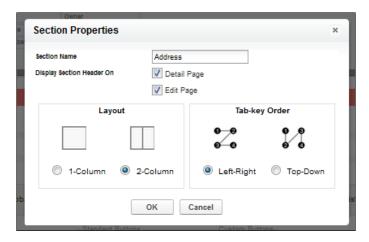


- 5. The left-hand side section can help you to navigate between **Fields**, **Buttons**, **Actions**, **Expanded Lookups**, **Related Lists**, and **Report Charts**, as shown in the preceding screenshot.
- 6. Click on **Fields** on the left-hand side panel of the palette, and in the right-hand side portion, you will see that no field is available to use as all the fields are already made available on the page layout. If this was not the case, you could have dragged-and-dropped the fields to the bottom section of the page.

7. Here, you can create a section for a group of fields and drag-and-drop the section from the right-hand side to the bottom section of the page, outside the palette, as shown in the following screenshot:

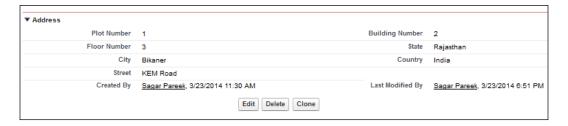


8. Now, once you finish dragging the section, you will see the following pop up. Enter Address in the **Section Name** field, select **Layout** as **2-Column**, and **Tab-key Order** as **Left-Right**.



- 9. Click on **OK**.
- 10. Now, you can see the **Address** section created on the page. Just drag-and-drop all the fields, except for **Event Name**.
- 11. Click on **Save**.

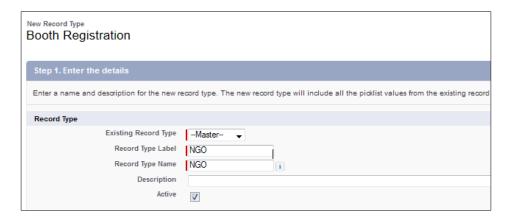
Now, if you go to any of the detail pages of the existing event records, you will be able to see this section:



Setting up record types

Record types in Salesforce let you create records for the same object in different page layout and fields. These are used to categorize the records using different picklist values and page layouts. For example, in the Booth Registration object, you want to separate the picklist values for NGO(s) and companies. The NGO(s) will be able to see only the Child Welfare and Women Welfare value in the drop-down field industry, but the companies will see all the values except these two. To create record types, follow these steps:

- 1. Navigate to **Setup** | **Build** | **Create** | **Objects**.
- 2. Navigate to the **Booth Registration** object and then go to the object detail page by clicking on the **Booth Registration** label.
- 3. Under the **Record Type** section, click on **New**.
- 4. This will redirect you to a new screen where you have to enter **Record Type Label** (enter NGO) and **Record Type Name** (enter NGO); don't forget to select the **Active** checkbox. Also, select the profile that can access this record type and then just select the system administrator as shown in the following screenshot:

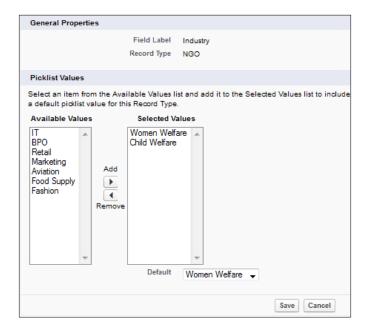


- 5. Click on **Next**. Leave it as the default setting and save it.
- 6. Go to the **NGO Record Type** detail page. Under the **Picklist Available for Editing** section, click on **Edit** in front of the **Industry** picklist.



7. Add only **Women Welfare and Child Welfare** from the available values to the selected values.

8. Under **Default**, select **Women Welfare**. This will be the selected default value as shown in the following screenshot:



9. Click on Save.

In a similar way, create another record type named **Companies** and select all the values, except for **Women Welfare** and **Child Welfare**.

Tracking the history

If a record is accessible by many users, then it's a tedious job to track and maintain the field history. For example, the amount field in opportunity is very important, and an organization will want to keep track of the users that change the amount value. A simple solution is to enable the field-history-tracking option for those objects. You can maintain a history of the changes made to the fields in the records of the objects in Salesforce for custom objects and the following standard objects as well:

- Accounts
- Cases
- Contacts
- Entitlements

- Service contracts
- Contract line items
- Contracts
- Leads
- Opportunities
- Articles
- Solutions

Here, we will enable the field-history-tracking option for the Event Registration object. To enable this, follow these steps:

- 1. Navigate to **Setup** | **Build** | **Create** | **Objects**.
- 2. Click on **Edit** in front of the **Event Registration** object and check the **Track Field History** checkbox as shown in the following screenshot:



3. Click on **Save**.

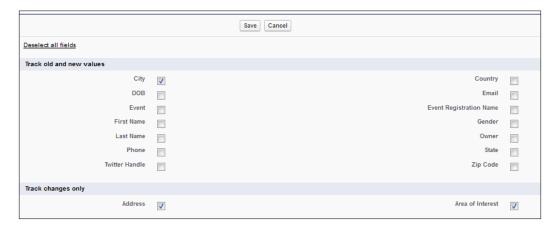


You have to do this only for a custom object if you didn't select **Track Field History** checkbox at the time of object creation.

4. Now go back to the **Event Registration** object detail page, navigate to **Custom Fields & Relationships**, and click on the **Set History Tracking** button as shown in the following screenshot:



5. Select the field that should be tracked (**City**, **Address**, and **Area of Interest**). A maximum of 20 standard and custom fields per object are allowed to be tracked. You can see this in the following screenshot:



6. Click on Save.



In order to see the field history, make sure the **Field History** list is added to the page layout of the object for which the field history is enabled. You cannot track formula fields, rollup summary, last modified, and created by fields.

Summary

In this chapter, we went through different types of relationships, and how to create objects and fields and establish a relationship between them in Salesforce. We started with the type of relationships and then followed this up with an overview of Sales Cloud and Service Cloud in Salesforce. We also discussed the creation of a tab and app and established a relationship between them. Then, we discussed different field data types available in Salesforce, page layout, and record type concepts. At last, we discussed the field-history-tracking concept.

In the next chapter, we will discuss the validation rule, formula field, workflow, and approval process concepts.

Automating a Business Process

In this chapter, we will discuss how you can improve and maintain data quality in Salesforce and streamline a business process in your organization. The following topics will be covered in this chapter:

- Improving data quality the validation rule
- The formula field
- The Roll-up Summary field
- A letterhead
- An e-mail template
- Using a workflow to automate your work
- Monitoring a time-based workflow
- Streamlining your approval process approval processes
- Various ways to approve a request approval settings
- Stay-in-Touch

Improving the data quality – the validation rule

In order to make your data valid and healthy when entered by a user, it is very important that you impose some constraints over the values that are being entered into the system. This is to ensure that the user cannot enter any junk values or values that don't meet your business requirements.

Salesforce.com provides a feature called the validation rule. When you apply validation rules over fields of an object, it means that the data now entered by the user must meet the parameters that you decided with the validation rule. Validation rules in Salesforce are always defined in terms of formula expressions. If the formula evaluates to true, then an error message is displayed while the record is being saved, or the record is saved to the database. Validation rules are always evaluated while creating and updating a record. Using validation rules, you can ensure your business maintains a high degree of data quality and integrity.

Let's start with an example of an event organized by an event management firm, where there is a condition: the registrant's age must be at least 18 in order to register. For this scenario, we can impose a validation rule that will confirm this criterion.

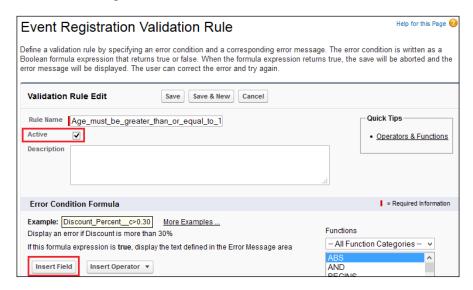
In order to achieve this validation rule, follow these steps:

- 1. Navigate to Setup | Build | Create | Objects.
- 2. Click on the label of the object; in our case, click on **Event Registration**.
- 3. On the object definition page of the Event Registration object, you will find a section called **Validation Rules**.
- 4. Click on the **New** button as shown in the following screenshot:



- 5. It will redirect you to a validation rule edit page where you can create a validation rule. Now, enter Age must be greater than or equals to 18 in the **Rule Name** field.
- 6. Select the **Active** checkbox to activate this validation rule. Enter the description so that other users can get an idea of why this validation rule is there.

7. Under **Error Condition Formula**, click on the **Insert Field** button, as shown in the following screenshot:



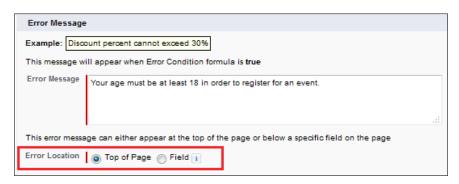
8. A window will pop up from where you can select the field that you want to use in your validation rule. Click on the **Insert** button to use it in the validation rule, as shown in the following screenshot:



9. Now, you can see the field's API name is present in the formula's input box; just add <18 and your formula expression will become something like Age__c<18. To insert <, you can use the **Insert Operator** dropdown as shown in following screenshot:



- 10. You can check what syntax was used in your validation rule by clicking on the **Check Syntax** button.
- 11. Now, whenever this formula is evaluated to true, an error message will be displayed. To add an error message, navigate to the **Error Message** section, and in the **Error Message** field, enter Your age must be at least 18 in order to register for an event, as shown in the following screenshot:



- 12. You can display the error message at two places:
 - At the top of the page
 - Below the field
- 13. In our case, select the top of the page.
- 14. Click on Save.



Salesforce fires the entire validation rule at the time a record is inserted or updated to make sure every detail entered is valid. If data is not valid, then the record is not saved. Any of the fields can be referenced to the validation rule; even if they are not available on the page layout, the validation rule would still fire and will result in an error message if the rule fails.

The following are a few important functions that you can use in a validation rule or a formula field:

Formula	Description	
DATE	This returns a date value from the values entered by the user.	
ISBLANK	This returns TRUE if the field is blank.	
PRIORVALUE	This returns the previous value of a field.	
ISPICKVAL	This returns TRUE if the value specified by you matches the value selected in the picklist.	
VALUE	This converts the text into a number.	
VLOOKUP	This is similar to Excel VLOOKUP and returns a value by looking up a related value on a custom object.	
AND	This returns TRUE if both the conditions defined are met	
BEGINS	This returns TRUE if the given field values begin with a given set of characters.	
CONTAINS	This returns TRUE if the given field value contains the given set of characters.	
ISNEW	This checks whether the record is newly created.	
ISCHANGED	This returns TRUE if the new value is not equal to the older one.	
LEFT	This returns the number of characters specified from the start of a string.	
LEN	This returns the number of characters from the string.	
LOWER	This converts the characters into lowercase from the specified string.	
OR	This evaluates whether the expression is TRUE or FALSE. It returns TRUE if the expression is true, else it returns FALSE.	
RIGHT	This returns the number of characters from the end of the string.	
TEXT	This returns the value in text format from other formats such as date, percent, and picklist values.	
TODAY	This returns today's date in a date format.	
UPPER	This converts a string into uppercase.	



For a complete list of formulas, you can refer to https://help.salesforce.com/HTViewHelpDoc?id=customize_functions.htm&language=en_US.

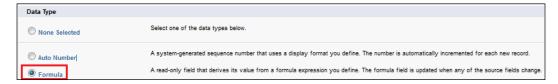
The Formula field

Formula fields in Salesforce are a special type of read-only fields that evaluate the specific equation at runtime and generate values accordingly. These fields are generally used where the data is entered by the user in a field and that data needs some logical processing and storage in another field. We need to define a formula expression/equation that will be executed while a record is being saved.

Let's start with an example. The event company Appiuss wants to calculate the age of the participants while they are registering for an event, depending on the date of birth the registrant entered at the time of registration. Additionally, they want to show it as a read-only field.

In order to fulfill this requirement, you can follow these steps:

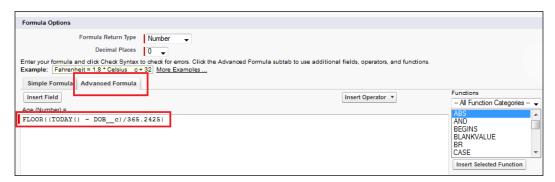
- 1. Navigate to **Setup** | **Build** | **Create** | **Objects**.
- 2. Click on the label of the object; in our case, click on **Event Registration**.
- 3. Under the **Custom fields and relationships** section, click on the **New** button. It will redirect you to a new window from where you can select the **Formula** field, as shown in the following screenshot:



4. Click on **Next**. On the next screen, enter Age in the **Field Label** field; it will autopopulate the **Field Name** option based on the field label. You can change the field name as well. Under **Formula Return Type**, select **Number**, and under **Decimal Places**, select **0**, as shown in the following screenshot:



- 5. Click on the **Next** button. It will open a formula editor page where you can write a formula as per your requirement.
- 6. Now, on the next screen, under the **Advanced Formula** tab, enter the formula expression FLOOR((TODAY() DOB_c)/365.2425), as shown in the following screenshot:





The FLOOR function rounds a number down towards zero to the nearest integer, and the ${\tt TODAY}$ function returns the current date.

- 7. Under the **Blank Field Handling** section, you can select the **What happen your formula reference** option to some number, currency, or percent field and their values are blank. There are two options that you can select as follows:
 - Treat blank fields as zeroes
 - Treat blank fields as blanks
- 8. Click on the **Next** button, select **Profile-level Visibility** for this formula field, and click on **Next**.
- 9. In the final window, you can add this field to the available page layouts and click on **Save**.
- 10. From the next time, whenever a user enters his or her date of birth in an event registration record, the formula field will automatically calculate the age.

The Roll-up Summary field

The Roll-up Summary field in Salesforce is a special type of field that is created on the master object so that we can show rolled-up data from child records to master records. Roll-up Summary fields in Salesforce can only be created on a master object when there is a master-detail relationship between two objects.

The Roll-up Summary field is only capable of calculating the following:

- **SUM**: This shows the sum of all the child records specific to the field on the master record
- COUNT: This shows the number of child records present on the master record
- MIN: This shows the minimum value of the child records on the master record
- MAX: This shows the maximum value of the child records on the master record

In our application, as we already discussed, we have a master-detail relationship between the Sponsor and Booth Registration objects. So, it is possible to create a Roll-up Summary field on the Sponsor object to count the number of booth registrations made by a specific Sponsor object. To do this, follow these steps:

- 1. Navigate to **Setup** | **Build** | **Create** | **Objects**.
- 2. Click on the label of object; in our case, click on **Sponsor**.
- 3. Under the **Custom fields and relationships** section, click on the **New** button. It will redirect you to a new window from where you can select the **Roll-Up Summary** field, as shown in the following screenshot:



4. Click on the **Next** button, and enter data in **Field Label**, **Field Name**, **Description**, and **Help Text**, as shown in the following screenshot:



5. Click on the Next button. Now select Summarized Object, in our case, Booth Registrations. Navigate to the Roll-Up Type section, select COUNT, and under the Filter Criteria section, select All records should be included in the calculation, as shown in the following screenshot:

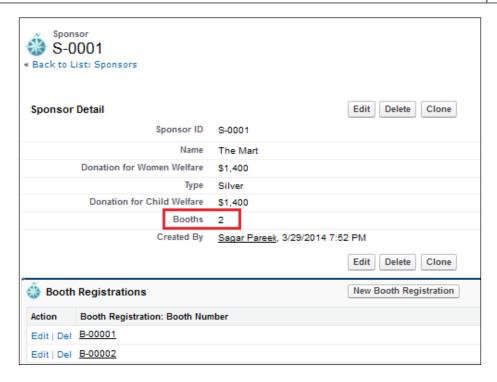


- 6. Click on **Next**. Select the profile-level visibility for this formula field and click on **Next**
- 7. In the final window, you can add this field to the available page layouts and click on **Save**.



You can create a maximum of 10 Roll-up Summary fields on any object by default. However, you may ask Salesforce support to increase it.

In the following screenshot, you can see that there are two booth registration records for the sponsor. **The Mart** and the **Booths** fields show the exact number:



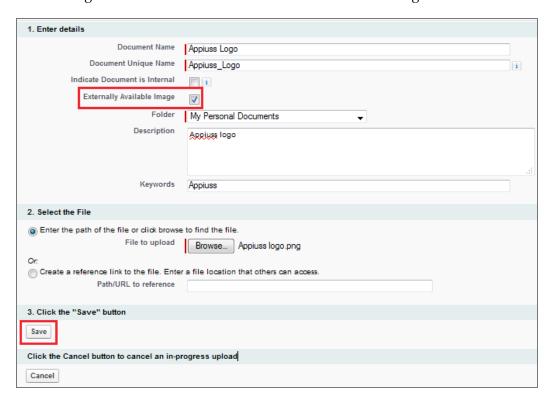
Letterhead

A letterhead is the banner at the top of a letter. The heading usually consists of a name and an address, a logo, and sometimes a background color. You can also design a letterhead in Salesforce; it will give you the same look and feel as that of an HTML e-mail template. Before you create a letterhead, you first need to have your logo in the document folder. The size should not be wider than 600 pixels, and the height should not be more than 200 pixels.

Uploading a file into the document folder

To upload your company logo in the document folder, follow these steps:

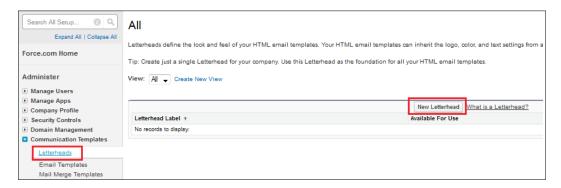
- 1. Click on the **Documents** tab and then click on the **New** button.
- 2. Enter data in **Document Name** and **Document Unique Name** will be autopopulated. Select the **Externally available image** checkbox and the destination folder where you want to save the image, then browse to the image and click on **Save**. You can see this in the following screenshot:



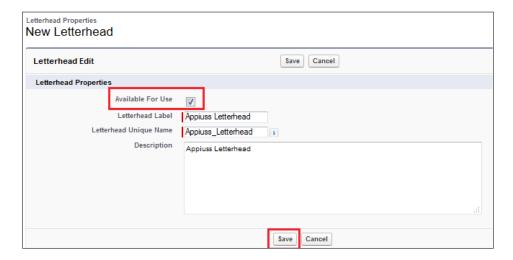
Creating a letterhead

Once your company logo is uploaded in Salesforce, we are good to go ahead and set up a letterhead for the company called Appiuss. To do this, follow these steps:

- 1. Navigate to Setup | Administer | Communication templates | Letterheads.
- 2. Click on the **New Letterhead** button as shown in the following screenshot:



 It will redirect you to the letterhead properties screen where you have to fill up the Letterhead Label and Description fields and select the Available For Use checkbox.

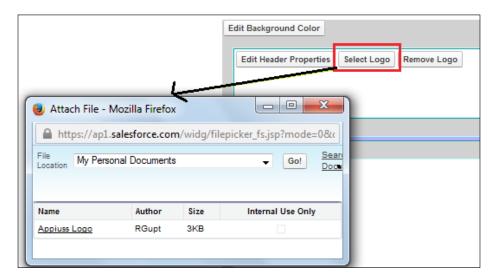


4. Click on **Save**. It will redirect you to a new screen where you can customize your letterhead.



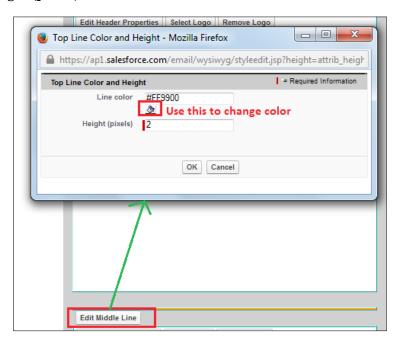
If the **Available for Use** checkbox is not selected, then you can't create an HTML e-mail that will use the letterhead.

- 5. Click on the **Edit Background Color** button and choose a color for the background of your letterhead. Click the **Color Picker** button to choose a color.
- 6. Click on the **Select Logo** button to add a logo at the top of your letterhead, as shown in the following screenshot:



- 7. Likewise, you can add a logo at the bottom of your letterhead. Click on the **Remove Logo** button to delete the image from the letterhead.
- 8. Click on the **Edit Header Properties** button and choose the color, alignment, and height for the top section of the letterhead.

9. To edit the line, click on the **Edit Top Line**, **Edit Middle Line**, and **Edit Bottom Line** buttons and change the values of **Line color** and **Height (pixels)**.



10. To edit the color of the body of your letterhead, click on the **Edit body colors** button available in the letterhead. Click on the **Preview** button available on the letterhead properties page to get a preview of your letterhead. It will look like the following screenshot:



11. Once you are done with the changes, click on the **Save** button.

An e-mail template

An e-mail template represents a template for an e-mail. E-mail templates are used with automated and non-automated e-mails sent from the Salesforce organization. Let's start with an example where the VP of marketing wants to get all the details of each participant who has registered for the event. To send all the details together, we have to create an e-mail template. An organization can use an e-mail template with the following mentioned features:

- Web-to-Lead
- Web-to-Case
- Email-to-Case
- An assignment rule
- An autoresponse rule
- The escalation rule

Types of e-mail templates

You can create four different types of e-mail templates in Salesforce. They are as follows:

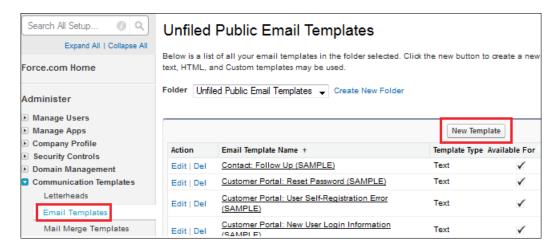
- **Text**: All the users can customize text e-mail templates.
- HTML with a letterhead: Administrators and users with the Edit HTML Templates permission can create or customize these types of e-mail templates based on a letterhead.
- **Custom HTML**: Administrators and users with the **Edit HTML Templates** permission can create or customize these types of e-mail templates without using a letterhead.
- Visualforce: Administrators and developers can create or customize templates using Visualforce. Visualforce e-mail templates can be merged with a recipient's data in an advanced way, where the content of a template can contain information from multiple records.

Creating an e-mail template

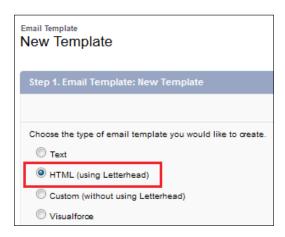
To solve the preceding business requirement, we will create an HTML with a letterhead template. To do this, follow these steps:

1. Navigate to Setup | Administer | Communication Templates | Email Templates.

2. Click on the **New Template** button, as shown in the following screenshot:

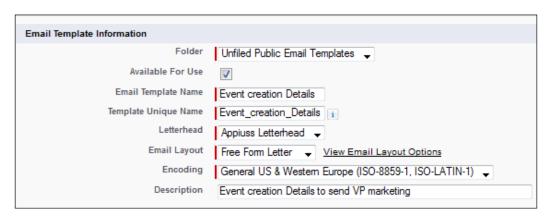


3. Now select the **HTML** (using Letterhead) option as shown in the following screenshot and click on **Next**:



- 4. Now enter the following details:
 - **Folder**: Choose a folder where you want to store this e-mail template.
 - Or Available For Use: Select the Available For Use checkbox if you would like to allow a user to use this template while setting up an e-mail notification for various features.
 - Email Template Name: Enter the name of the e-mail template.

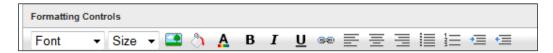
- Template Unique Name: This will be autopopulated based on the e-mail template name.
- Letterhead: Select the letterhead that we created.
- Email Layout: Select the e-mail layout. This controls the columns and page layout of the message text. Click on View Email Layout Options to see samples.
- Encoding: Select the Encoding setting to determine the character set for the template.
- Description: You can enter a short description so that other users will come to know why this e-mail template was created.
- 5. Once done, it will look like the following screenshot:



- 6. Click on the **Next** button. It will redirect you to the **HTML Email Template Edit** page where you can consider the following points:
 - ° The subject will appear in the e-mail that will you send:



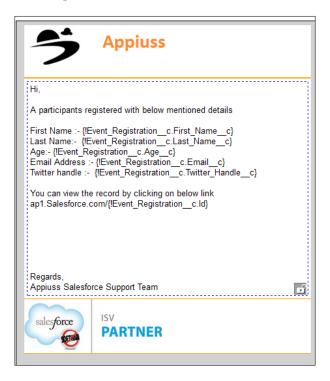
• Enter the text that needs to appear in the message that you will send. Click on the section and enter the message. You can change the style of your text by selecting the text and using the format toolbar, as shown in the following screenshot:



You can also use merge fields in the template's subject and body. These fields will be replaced with the information filled in by the user during the event registration stage when you send an e-mail. Once you select the field under the available merge field, it will give you the merge field's value that you can copy and paste in the e-mail template.



° Finally, our e-mail template will look like the following screenshot. You can add text as per your requirement or try to add a similar e-mail template:



7. Click on **Next**. Optionally, you can enter the text-only version of your e-mail or click on the **Copy Text From HTML Version** button to automatically paste the text from your HTML version without the HTML tags. The text-only version is available to recipients who are unable to view HTML e-mails.



It is recommended that you leave the text-only version blank. If you leave it blank, the content will automatically become text-only based on the current HTML version.

8. Finally, click on **Save**.



To prevent users from editing a section when using this template, click on the padlock icon.

9. Optionally, you can click on the **Send test and verify merge fields** button to check the output of your e-mail template that you created.



Sales force allows you to create an e-mail template with a maximum size of $384~\rm KB$ for text, HTML, and custom HTML templates, and $1~\rm MB$ for Visual force.

Attaching a file with an e-mail template

You can also attach a file with your e-mail template. To add an attachment to the template, navigate to the **Attachments** list and click on the **Attached File** button, as shown in the following screenshot:



The attached file will always be included in every e-mail that uses this template. You can select a file from the document or upload a file from your computer. However, the limitation is that this file cannot be larger than 5 MB.

E-mail template's folder management

A folder is a good way to manage your several e-mail templates. It's a way to group all similar e-mail templates together so you can easily find them when you need them. It's also a great way to share e-mail templates with other users.

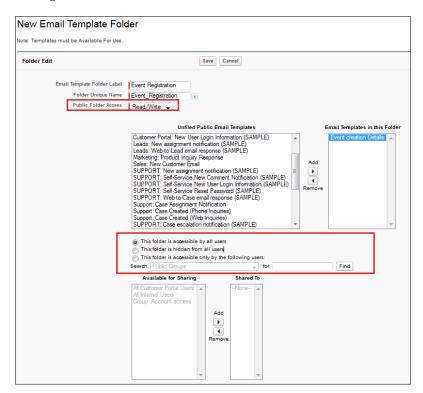
Creating an e-mail template folder

To create a folder for e-mail templates, follow these steps:

- 1. Navigate to Setup | Administer | Communication Templates | Email Templates.
- 2. Click on the **Create New Folder** link.



3. Enter data in Email Template Folder Label and Folder Unique Name. Select Public Folder Access (Read Only or Read/Write), Email Templates in this Folder, and the sharing setting for a folder, as shown in the following screenshot:



4. Click on Save.

Deleting an e-mail template folder

To delete an e-mail template folder, click on the **Edit** link available next to the folder name.



Finally, click on the **Delete** button.

Using workflow to automate your work

A variety of business processes are included in your organization for day-to-day work. You can automate your organization's business process using Salesforce's workflows. You can use workflows to assign tasks, update fields, send an e-mail alert, and send an outbound message. A workflow is a powerful feature provided by Salesforce to automate your business process. Let's start with an example. Whenever a participant with an age of more than 18 years registers for an event, Appiuss would want the participant to perform certain actions. The actions are as follows:

- 1. Update the Twitter handle with Appiuss.
- 2. Assign a task to the user Sara Bareilles and set the due date 15 days after the record creation date.
- 3. Send an e-mail alert to VP marketing after two days of the record creation date.
- 4. There are two types of actions possible with workflow:
 - Immediate workflow action: This will fire as soon as the workflow meets the entry criteria
 - Time-dependent workflow action: This will fire relative to any date or date/time field on the object as specified in a time trigger; for example, 10 days after the opportunity creation date, you want to send an e-mail alert

You can associate four actions with any of the following workflows:

- A field update
- An e-mail alert
- Task
- An outbound message

Creating a workflow rule

Now, we will create a workflow that will fulfill the preceding requirements. To do this, follow these steps:

- 1. Navigate to Setup | Build | Create | Workflow & Approvals | Workflow Rule.
- 2. Click on the **New Rule** button as shown in the following screenshot:



3. Select the object for which you want to create a workflow rule. In our case, select the **Event Registration** object.



4. Click on **Next**. Under the **Edit Rule** section, enter data in **Rule Name** and **Description**, as shown in the following screenshot:



- 5. Under the **Evaluation Criteria** section, select a rule when this workflow fires; there are three options, as follows:
 - ° **Created**: If you select this option, the workflow will fire every time a record is created (if the rule criterion is met).
 - ° Created, and every time it's edited: If you select this option, the workflow will fire every time a record is created or updated (if the rule criterion is met).



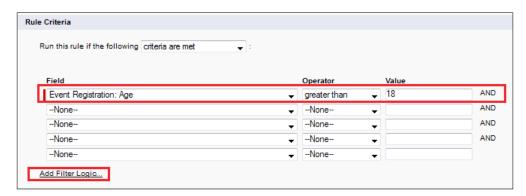
You cannot add time-dependent actions to the rule if you select this option.

° Created, and any time it's edited to subsequently meet criteria: If you select this option, it means the workflow will fire for a new record (if the rule criterion is met). For the updated record run, the rule is only valid if the record is altered from not meeting the rule criteria to meeting the rule criteria.

In our case, select the **created** option as shown in the following screenshot:



6. Under the **Rule Criteria** section, select **Age greater than 18** as per the requirement.



- 7. You can also add a filter if you have more than one field in your rule criteria and want to change the logic.
- 8. Click on the Save & Next button.
- 9. Click on **Done**.

Field update

To create a new field update, follow these steps:

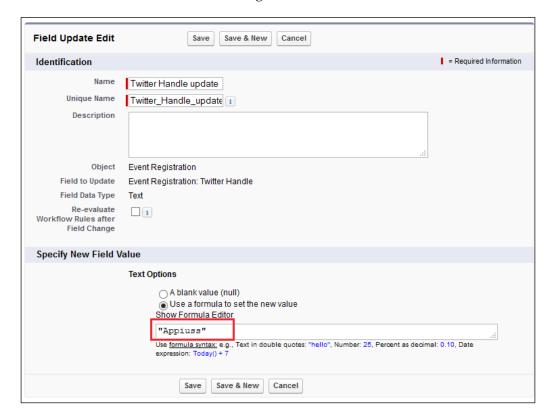
- 1. Navigate to Setup | Build | Create | Workflow & Approvals | Workflow Rule | Field Updates.
- 2. Click on the **New Field Update** button, as shown in the following screenshot:



- 3. It will redirect you to a new window where you have to enter a few details, as follows:
 - Name: Enter a meaningful rule name.
 - Ounique Name: This will be autopopulated based on the name. You can also define a unique name. The **Unique Name** field can contain only underscores and alphanumeric characters. It must be unique within the selected object type, begin with a letter, should not include any spaces, should not end with an underscore, and should not contain two consecutive underscores.

- ° **Description**: Enter a description.
- Object & Fields to update: Select the object and define the field update; in our case, the object is Event Registration and the field is Twitter Handle.
- Re-evaluate Workflow Rules after Field Change: Select this checkbox if you want the workflow rules on this object to be re-evaluated after the field value is updated.
- Specify New Field Value: Here, you can use a formula to set a new value or a blank value (null). In our case, select set this field value to Appiuss.

You can see this in the following screenshot:



4. Click on Save.



In the case of a master-detail relationship, you can update the master fields from the workflow.

Assigning a task

To add a task, follow these steps:

- 1. Navigate to Setup | Build | Create | Workflow & Approvals | Workflow Rule | Tasks.
- 2. Click on the **New Task** button, as shown in the following screenshot:



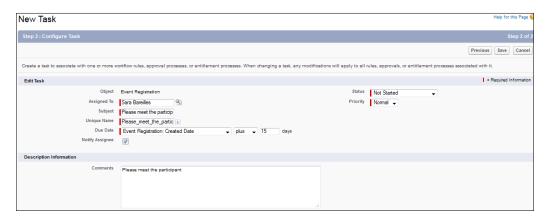
3. Select the object for which you want to create a task. In our case, select the **Event Registration** object and then click on **Next**.



If you are not getting the event registration field in the object's dropdown, then go to your custom object, edit it, and select the **Allow Activities** checkbox.

- 4. It will redirect you to a new window where you have to enter a few details as follows:
 - Assigned To: Select an assignee; an assignee can be a user, role, or record owner. In our case, it's the user, Sara Bareilles.
 - Subject: Enter a subject for the task.
 - ° **Unique Name**: Enter a unique name.
 - Status: Select the status of the task. In our case, the status will be Not started.
 - Priority: Select the priority of the task. In our case, select Normal.
 - Due Date: Select the due date. In our case, add 15 days after the record creation date.
 - Notify assignee: Select the Notify Assignee checkbox to send an e-mail notification when the task is assigned.
 - Comments: You can enter additional comments to the task.

Finally, it will look like the following screenshot:



5. Click on Save.

Creating an e-mail alert

To create an e-mail alert, follow these steps:

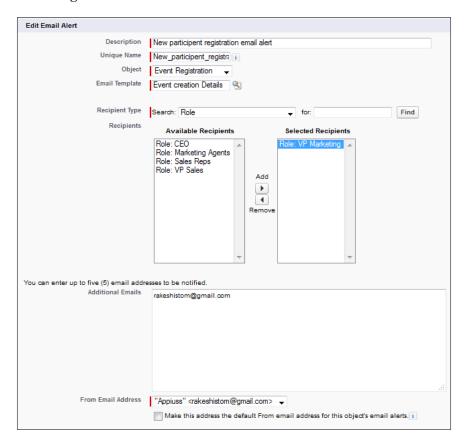
- 1. Navigate to Setup | Build | Create | Workflow & Approvals | Workflow Rule | Email Alerts.
- 2. Click on the **New Email Alert** button as shown in the following screenshot:



- 3. It will redirect you to a new window where you have to enter a few details as follows:
 - Description: Enter a description.
 - Unique Name: This will be autopopulated based on the description. You can also define a unique name. The Unique Name field can contain only underscores and alphanumeric characters. It must be unique within the selected object type, begin with a letter, not include spaces, should not end with an underscore, and should not contain two consecutive underscores.

- Object: Select an object for which you want to set an e-mail alert.
 In our case, this will be Event Registration.
- Email Template: Select an e-mail template that you want to use for the e-mail alert. In our case, select the template Event Creation Details that we created while learning the e-mail template topic.
- ° **Recipient Type**: Select who should receive this e-mail alert. In our case, select **Role VP marketing**.
- ° Additional Emails: Enter up to five additional e-mail addresses.
- From Email Address: You can select the From e-mail address. There are two options for you: you can select the e-mail address of the default workflow user or the verified organization-wide address.

In our case, select the second option. Finally, it will look like the following screenshot:



4. Click on Save.

Outbound messages

If your organization is maintaining the same event management setup in other systems as well and you want to send any changes that happen in Salesforce to another system, you can use this facility. Outbound messaging allows you to specify the changes to fields. Salesforce can cause messages with field values to be sent to designated external systems. To define outbound messages, the endpoint URL (where you want to send data) is required.

To create a new outbound message, follow these steps:

- 1. Navigate to Setup | Build | Create | Workflow & Approvals | Workflow Rule | Outbound Message.
- 2. Click on the **New Outbound Message** button as shown in the following screenshot:



- 3. Select the object for which you want to create an outbound message, click on **Next**, and enter the following details:
 - Name: Enter a meaningful rule name.
 - Ounique Name: This will be autopopulated based on the name. You can also define the unique name. The Unique Name field can contain only underscores and alphanumeric characters. It must be unique within the selected object type, must begin with a letter, should not include spaces, not end with an underscore, and not contain two consecutive underscores.
 - ° **Description**: Enter a description.
 - Endpoint URL: Enter the endpoint URL where you want to send data.
 - Ouser to send as: Select the user to use when sending the message. The selected user controls data visibility for the message that is sent to the endpoint.
 - Send Session ID: Select this if you want to send Salesforce's session ID with an outbound message.

- 4. Select the fields to include in the outbound message and click on Add.
- 5. Click on Save.

Relating all the actions with the workflow

Now we have to relate all the actions that we have gone through (field update, task, and e-mail alert) with our workflow. To do this, follow these steps:

- 1. Navigate to Setup | Build | Create | Workflow & Approvals | Workflow Rule.
- 2. Click on the workflow name **For VP marketing** that we created.



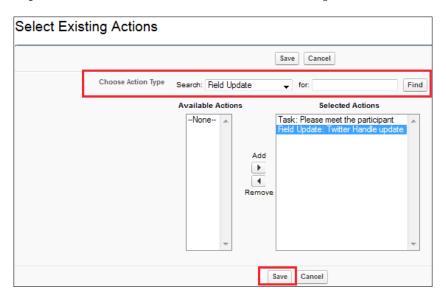
3. Navigate to the **Workflow Actions** section and click on **Edit**, as shown in the following screenshot:



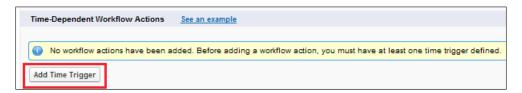
4. To add immediate workflow actions, click on the **Add Workflow Action** dropdown and **Select Existing Action** under the immediate workflow action section, as shown in the following screenshot:



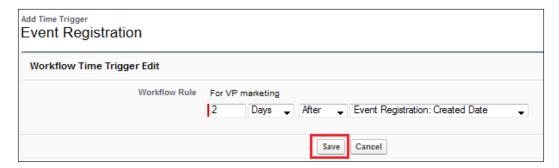
5. Add a task and field update that we created and click on **Save**. Use the dropdown to select **Task**, **Email Alert**, and **Field Update**:



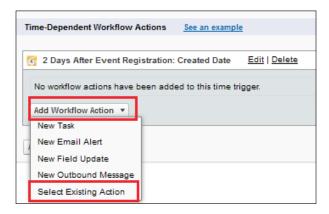
6. Now add **Time-Dependent Workflow Actions**. Click on the **Add Time Trigger** button under the **Time-Dependent Workflow Actions** section, as shown in the following screenshot:



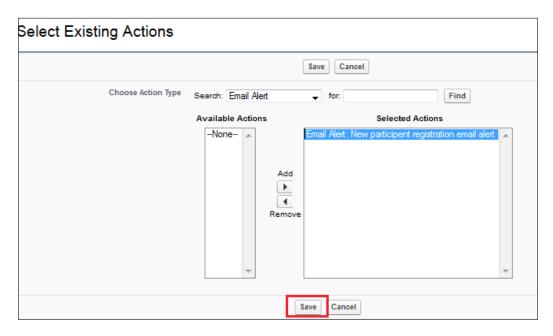
7. On the next screen, set the time interval for when the action should be fired. In our case, set **2 Days After Event Registration Date** and click on **Save**.



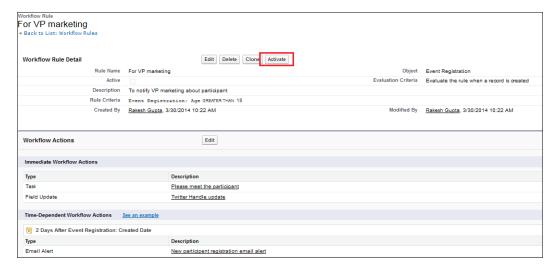
8. To add a time-based workflow action, navigate to the Time-Dependent Workflow Action section, click on the Add Workflow Action dropdown, and Select Existing Action under the immediate workflow action section, as shown in the following screenshot:



9. Enter the e-mail alert that we created under the e-mail alert topic and click on **Save.**



10. We are all set to go. Click on the **Done** button available at the top-right corner of the page. Finally, it will look like the following screenshot:



11. Click on the **Activate** button to activate this workflow. You will move to a new screen, **Workflow & Approvals Settings**, if you don't specify **Default Workflow User**. Here, you can specify the default workflow user and then click on **Save**. The workflow will now be activated.



Salesforce recommends you to choose a user with system administrator privileges.

Limitations of the workflow

The workflow feature is only available in Enterprise, Unlimited, Performance, and Developer editions. For the Professional Edition, you can enable this feature after paying an extra amount. As Salesforce is based on a multitenant architecture, it imposes a few limitations on the workflow:

- For each workflow rule, you can have the following:
 - 10 time triggers
 - ° 40 immediate actions
 - 40 time-dependent actions per time trigger
- For both immediate and time-dependent actions in one workflow rule, there can be no more than:
 - ° 10 email alerts
 - ° 10 tasks
 - ° 10 field updates
 - 10 outbound messages
- The workflow time trigger per hour limit for different editions are as follows:
 - Professional Edition: 250
 - ° Enterprise Edition: 500
 - ° **Developer Edition**: 50
 - Unlimited and Professional Edition: 1,000
- The workflow e-mail limit per day is as follows:
 - ° 1,000 per Salesforce standard license
 - ° 200,000 per organization

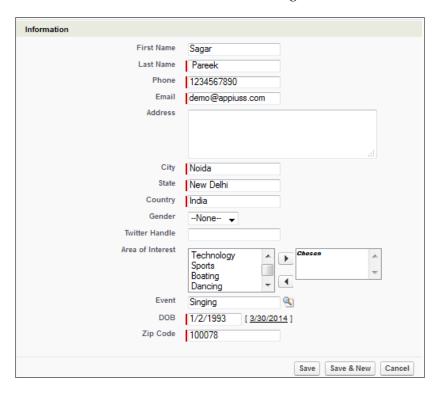


Once an organization's daily e-mail limit of 200,000 exceeds, Salesforce will send a warning e-mail to the default workflow user and discard all the e-mails. Salesforce does not try to resend them later.

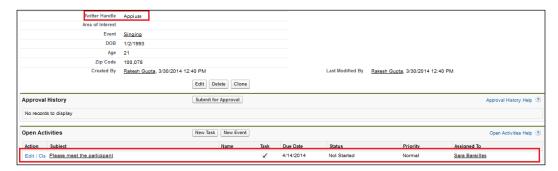
Monitoring a time-based workflow

You can monitor time-based workflows that are present in the queue to be processed and may cancel them if required.

Create a new record via the event registration form where the age needs to be greater than 18 to fire our workflow, as shown in the following screenshot:



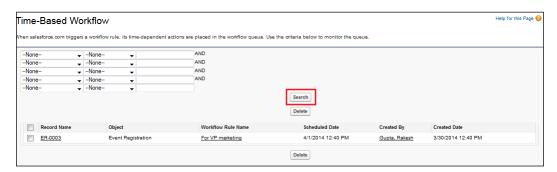
You can check whether the Twitter handle field is autoupdated with the word Appiuss and a task is assigned to the user, as shown in the following screenshot:



Managing a time-based workflow

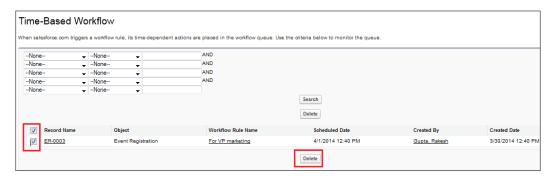
To monitor a time-based workflow, follow these steps:

- 1. Navigate to Setup | Monitor | Time-Based Workflow.
- 2. Click on the **Search** button. It will list down all the time-based actions that are placed in the workflow queue.



Deleting a time-based workflow

To delete an action from the queue, select the concerned action and click on the **Delete** button, as shown in the following screenshot:



Streamlining your approval process – approval processes

An approval process in Salesforce is an automated process for your organization that can be used to approve records in Salesforce. Here, you can specify what happens when records are approved or rejected based on your business requirements. Once you implement an approval process, your business can run more efficiently. Similar to the workflow rule of sending an e-mail alert or field update, or assigning a task based on the requirement, an approval process will take care of your business one step ahead. With this, you can define the sequence of steps that are essential to be approved for a record.

Let's start with an example. Whenever any NGO registers for a booth for any event, it must be first approved by the VP marketing (Sagar Pareek) and then CEO (Rakesh Gupta) of Appiuss and the record creator can submit the record for approval; once the record is approved or rejected, the picklist value will be updated at the approval stage.

The wizard to create the approval process

Salesforce provides two types of wizards as follows:

Jump Start Wizard: This wizard is used to create a simple approval process
or one-step approval process. This wizard allows you to quickly create an
approval process where everything will be available on the same screen;
you do not have to move from one screen to another.

• **Standard Wizard**: This wizard is used to create complex approval processes. It consists of certain setup wizards that allow you to define your process, and another particular setup wizard that allows you to define each step in the process.

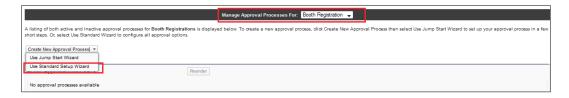
In this book, we will use a standard wizard to create an approval process. Before we create an approval process, create one picklist and an approval status field for the Booth registration object with the following details:

Field type	Label	Length/Values	Type
Picklist	Approval Status	 Submit for approval 	Read only
		 Approved by VP 	
		 Rejected by VP 	
		 Approved 	
		 Rejected 	

Creating a new approval process

Now, we will create an approval process to solve the preceding business requirement. To do this, follow these steps:

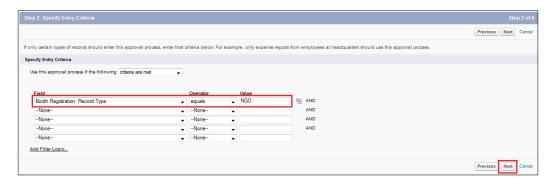
- 1. Navigate to Setup | Build | Create | Workflow & Approvals | Approval Processes.
- 2. From the **Manage Approval Processes For** dropdown, select the **Booth Registration** object.
- 3. Click on the **Create new approval process** dropdown and select **Use Standard Setup Wizard**, as shown in the following screenshot:



4. In the next screen, enter data in **Process Name**, **Unique Name**, and **Description**. Then click on **Next**.



5. In the next screen, specify the entry criteria. In our case, select **Booth Registration Record Type equals to NGO** and click on **Next**, as shown in the following screenshot:



- 6. In the next screen, you have to perform the following two tasks:
 - Select a field that will be used for automated approval routing. When we define an approval process, we can assign approval requests to different users. One option is to use a user field to automatically route these requests. The user field can be any custom hierarchical relationship field such as **Account Manager** or the **Manager Standard** user field. In our case, let it be the one that is set by default.
 - Record properties that can be edited. Once the record is submitted for an approval, the record gets locked so a normal user can't edit the record data. Here, you can define who can edit the record when the record is in between the approval process. Selecting **Administrators ONLY** will allow a user to edit records during the approval process stage.

7. Click on **Next**. You can see this in the following screenshot:





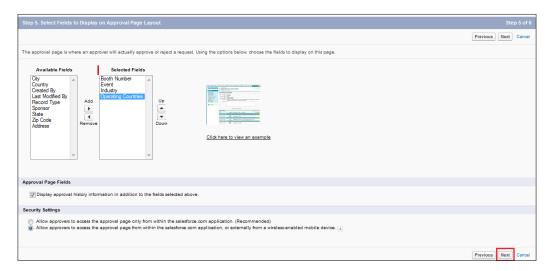
If you leave the **Next Automated Approver Determined By** field blank, you can't automatically assign approval requests to the manager in any step you create for this approval process.

8. When an approval process assigns an approval request to a user, Salesforce automatically sends an e-mail notification to the user that contains a link to the approval page in Salesforce. If you want to use your custom e-mail template, then choose a template or leave the field blank so Salesforce can use the default e-mail template. Then, click on **Next**.



- 9. In the next screen, the **Select Fields to Display on Approval Page Layout** field does the following tasks:
 - Select the field that you want to show on an approval request page.
 - Select the **Display approval history information in addition to the fields selected above** checkbox to include the approval history list on the approval request page, which includes fields such as **Date**, **Assigned To**, **Actual Approver**, and **Comments**.
 - Ounder the Security Settings section, select the option from where a user can approve or reject a request. In our case, select Allow approvers to access the approval page from within the salesforce.com application, or externally from a wireless-enabled mobile device.

10. Then, click on Next. You can see this in the following screenshot:

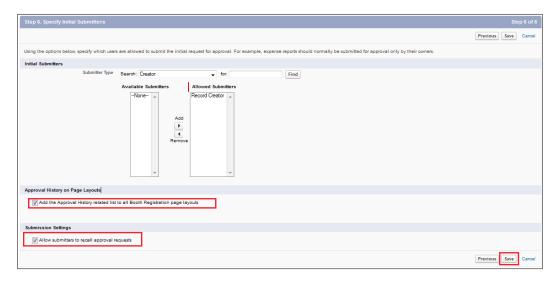




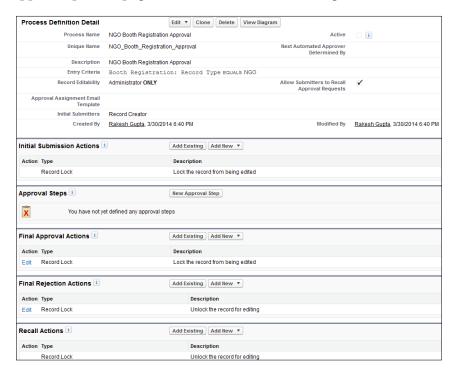
Here, we are allowing users to approve a request from within the Salesforce.com application or externally from a wireless-enabled mobile device; some users will not be able to create any approval steps that allow users to manually choose who the approver should be.

- 11. In the **Specify Initial Submitters** screen, select the following things:
 - ° Select the submitter type. In our case, select **Record Creator**.
 - Select all the Booth Registration page layouts checkboxes in the Add the Approval History list to add the list related to approval history to all the booth registration page layouts.
 - Optionally, you can select the Allow submitters to recall approval requests checkbox. It will allow the submitter to recall the approval process.

12. Click on Save. You can see this in the following screenshot:



13. In the next screen, select the **No**, **I'll do this later**, **take me back to the listing of all approval processes for this object** option, and you will move to the approval process page. It will look like the following screenshot:



Final approval actions

A final approval action occurs only when a record has received all the required approvals. In our case, navigate to the **Final Approval Actions** section, click on the **Edit** link, select **Unlock the record for editing** as shown in the following screenshot, and then click on **Save**.



You can also add some actions such as a field update email alert and an outbound message, or add existing actions as per your business needs.

Final rejection actions

A final rejection action occurs only when a record has been completely rejected from the approval process. In our case, it is **Unlock the record for editing**; leave it as is, as shown in in the following screenshot:



If you want to change this behavior, click on the **Edit** link and select the available option. You can also add some actions such as a field update e-mail alert and an outbound message, or add existing actions as per your business needs.

Recall actions

A recall action occurs only when a submitted approval request is recalled. Once a recall action happens, it will unlock the record to edit, as shown in the following screenshot:



You can also add some actions such as a field update e-mail alert and an outbound message, or add existing actions as per your business needs.

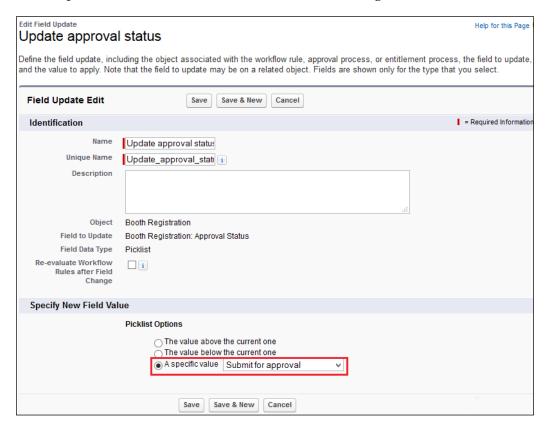
Initial submission actions

An initial action occurs only when a record is initially submitted for approval. It will lock the record from being edited; this means that no one can edit the record expect the one who has the permission to do so, as per the options that you selected while setting up the approval process. You can also add some actions such as a field update e-mail alert and an outbound message, or add existing actions as per your business needs. We will update our approval status field to submit at the approval stage. To do this, follow these steps:

1. Navigate to the **Initial Submission Actions** section, click on **Add New** from the drop-down list, and select **Field Update**, as shown in the following screenshot:



2. This field update works similar to the one that we created in the workflow rule. Enter data in Name, Unique Name, and Description. Select Field to Update (Approval Status) under the Specify New Field Value section, the A specific value option from the dropdown, the Submit for approval option, and click on Save, as shown in the following screenshot:



Approval steps

Now, we will add approval steps as per our requirement. First, VP marketing (Sagar Pareek) and then the CEO (Rakesh Gupta) of Appiuss must approve the record.

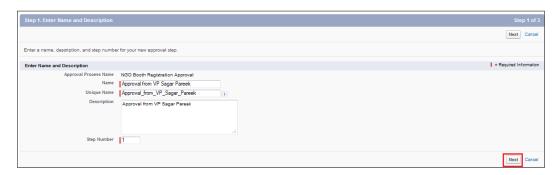
Approval step 1

In the first step, an approval from VP marketing Sagar Pareek is required. To do this, follow these steps:

1. Navigate to the **Approval Steps** section and click on the **New Approval Step** button, as shown in the following screenshot:



2. In the next screen, enter data in Name, Unique Name, Description, and Step Number and click on Next.



3. In the next screen, you can filter out records. It means here you can decide which records should be entered in this approval step, for example, NGO records where city equals to New York. In our case, select **All records should enter this step** and click on **Next**, as shown in the following screenshot:



- 4. In the next screen, you can specify the approver. There are a few possibilities that are as follows:
 - Let the submitter choose the approver manually: You can allow the submitter to choose to approve records manually. However, the thing to remember is this option will not be shown if you select the Allow approvers to access the approval page from within the Salesforce. com application, or externally from a wireless-enabled mobile device.
 - Automatically assign an approval to a queue: You can autoassign an approval request to a queue that belongs to the Booth Registration object.
 - Outcomatically assign a request to an approver(s): You can autoassign an approval request to multiple users by selecting this option. You can select the user, queue, or related user. You can send an approver request to a maximum of 25 approvers. In this case, you have two options; they are as follows:
 - Approve or reject a request based on the FIRST response: The first response to the approval request determines whether the record is approved or rejected.
 - Require a UNANIMOUS approval from all the selected approvers: The record is only approved if all of the approvers approve the request. The approval request is rejected if any of the approvers reject the request.
- 5. In our case, select **Automatically assign to approver(s)**, then the user **Sagar Pareek**, and click on **Save**.



6. In the next screen, select the **No, I'll do this later, take me back to the listing of all approval processes for this object** option and you will be taken back to the approval process detail page.

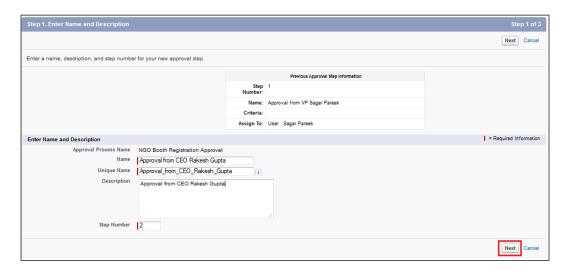
Approval step 2

Now we will create the second step where an approval from the CEO, Rakesh Gupta is required. To do this, follow these steps:

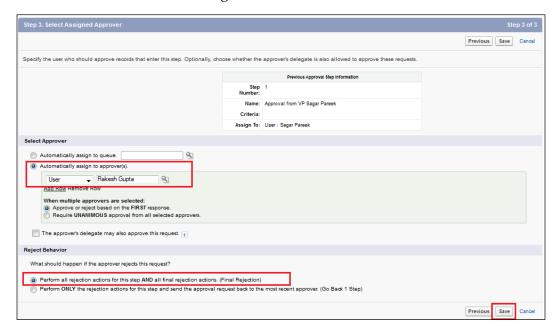
1. Navigate to the **Approval Steps** section and click on the **New Approval Step** button, as shown in the following screenshot:



2. In the next screen, enter data in Name, Unique Name, Description, and Step Number and click on Next.



- 3. In the next screen, you can filter out records. It means you can decide which records should be entered in this approval step, for example, NGO records where city equals to New York. In our case, select All records should enter this step and click on Next.
- 4. In the next screen, select the user Rakesh Gupta, and also select Reject Behavior (what happens when approval request is rejected by the user Rakesh Gupta). Select the Perform all rejection actions for this step AND all final rejection actions. (Final Rejection) option and then click on Save, as shown in the following screenshot:



5. In the next screen, select the **No, I'll do this later, take me back to the listing of all approval processes for this object** option and you will taken back to the approval process detail page.



For both Enterprise and Unlimited editions, there is a limit of 15 steps per process.

Adding an action to step 1

In every step, you can add two types of actions, which are as follows:

- Approval actions
- Rejection actions

To add an action to step 1, follow these steps:

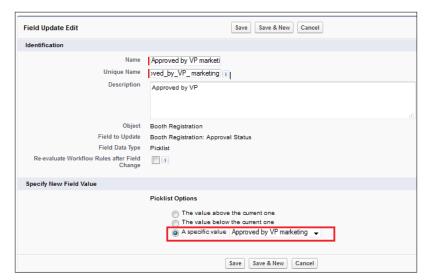
1. To add actions to each step, navigate to **Approval Steps** and click on the **Show Actions** link available in front of step 1.



2. It will open a small window where you can add actions for an approval or rejection. Move to the **Approval Actions** section, click on the **Add New** dropdown, and select **Field Update**.



3. It will redirect you to a new window where you have to enter data in Name, Unique Name, and Description. Select Field to Update (Approval Status) and under the Specify New Field Value section, select the A specific value option. From the drop-down list, select Approved by VP marketing and click on Save, as shown in the following screenshot:



4. Likewise, you can add the rejection action and update the **Booth Registration** object and the approval status field with the value **Reject by VP marketing**, as shown in the following screenshot:



Adding an action to step 2

Now you can add action to step 2 as follows:

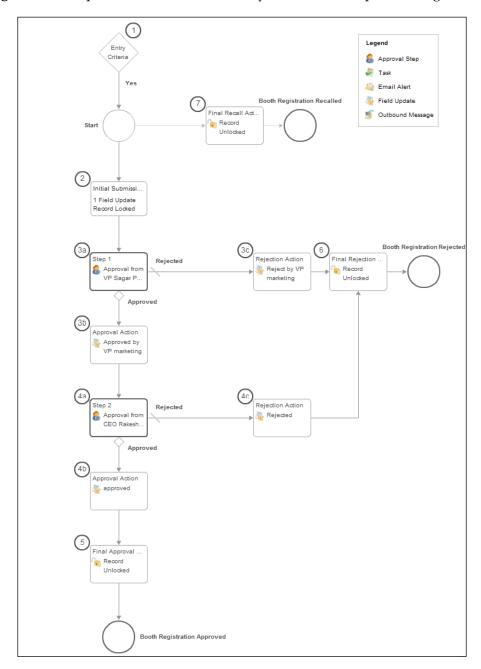
- In an approval action, you can update the Booth Registration object's approval status field with the value **Approved**
- In a rejection action, you can update the Booth Registration object's approval status field with the value **Rejected**

Finally, it will look like the following screenshot:



Viewing the process diagram

To view the process diagram of an approval process we created, you can click on **View Diagram**. It will open another window where you can view the process diagram:



Activating the approval process

To activate the approval process, click on the **Activate** button available at the top of the page, as shown in the following screenshot:



Limitations of the approval process

Approval processes are available on Enterprise, Unlimited, Performance, and Developer editions. For the Professional Edition, you can enable this feature by paying an extra amount. As Salesforce is based on a multitenant architecture, it imposes a few limitations on the approval process:

- For each approval process, you can have a maximum of the following:
 - ° 30 steps per process
 - ° 25 approvers per step
- Each organization can have the following limitations:
 - 300 approval processes per object
 - ° 1,000 approval processes per organization
- An approval process's e-mail limit per day is as follows:
 - 1,000 per Salesforce standard license
 - ° 200,000 per organization



Once an organization's daily limit of 200,000 exceeds, Salesforce will send a warning e-mail to the default workflow user and discard all the e-mails. Salesforce will not try to resend them later.

You cannot delete active approval processes. If you want to delete them, you will first have to inactivate the approval process and make sure no records have been submitted for approval. If any records have been submitted, delete them and remove them from the recycle bin.

Once an approval process is activated, you cannot add, delete, or change the order of the steps or change the reject or skip comportment of that process, even if you make the process inactive.

Various ways to approve a request – approval settings

You can approve records in Salesforce by three ways, which are follows:

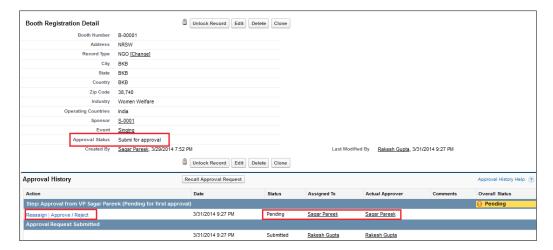
- Via a UI
- Through a wireless-enabled mobile device
- Via Salesforce Chatter (we will discuss this in *Chapter 7, Concepts of Data Management*)

For the approval settings, follow these steps:

1. First, we will submit any Booth Registration record that belongs to an NGO for approval. To submit a record for an approval process, go to the record detail page and navigate to the **Approval History** list and click on the **Submit for Approval** button, as shown in the following screenshot:



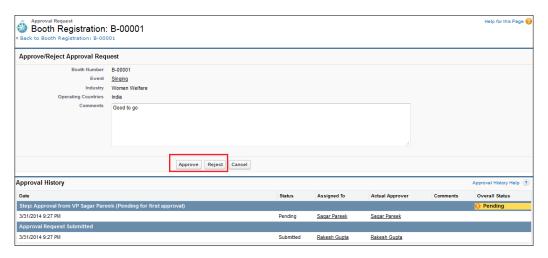
2. A warning window will pop up. Click on **OK**. Now our record is submitted for approval. As per our setting, the approval status is changed to **Submit for Approval**, and it will trigger an e-mail to Sagar Pareek for approval.



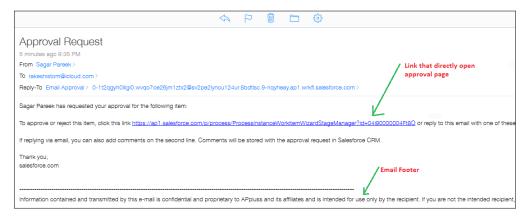


Users who have modified all the data permissions for an object can also submit a record for approval, and they can approve or reject a record from an approval process as well.

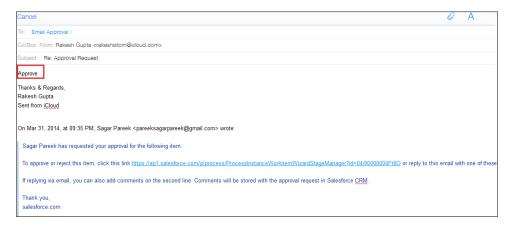
3. To approve or reject records, click on the **Approve/Reject** link. If you want to reassign an approval request to someone else, click on the reassign link. Clicking on the **Approve/Reject** link will redirect you to a new window. You can add a comment to the box and click on the **Approve** or **Reject** button, as shown in the following screenshot:



4. This page is called the **Approval Request** page. In this page, you can see the approval history section that appears while setting up the approval process. We will select the **Display approval history information in addition to the fields selected above** checkbox. As soon as the user Sagar Pareek approves the request for step 1, Salesforce will trigger an e-mail alert to proceed on to the next step (step 2 in our case), that is, to obtain approval from the user Rakesh Gupta:



- 5. To approve or reject records via an e-mail, click on **Reply** and use the following keywords in the body of your e-mail for approval or rejection as per your choice:
 - Approval: Yes, approve or approved
 - Rejection: No, reject or rejected
- 6. In our case, the user Rakesh Gupta will reply to the e-mail with the **Approve** keyword, as shown in the following screenshot:



7. If you mark the record as **Approved**, the approval status field value will then be changed to approved.





Approval request comments are restricted to 4,000 characters. In Chinese, Japanese, or Korean, the limit is 1,333 characters.

Stay-in-Touch

What do we do to obtain our client's latest contact information? We simply ask them to send us the latest details after a certain period; usually, we e-mail them to get this information. It's a tedious task to write an individual e-mail to every client/contact. Salesforce provides a better way to ask your clients to stay in touch with you. You can simply use a single e-mail format, and with a click of a button, you can directly send an e-mail to your contact and get the latest information. This functionality of Salesforce is known as Stay-in-Touch.

Stay-in-Touch settings

To make use of this functionality, follow these steps:

- 1. Navigate to Your Name | My Settings | Email | My Stay-in-Touch Settings.
- 2. It will open a window where you can create a few settings, as follows:
 - Automatic Bcc: If you select this option, then you will receive copies of your sent Stay-in-Touch e-mails. This option is only available if your organization has not enabled compliant Bcc e-mails.
 - A reminder for New Contacts: If you select this option, it will prompt a Stay-in-Touch request window whenever you save a new contact.
 - The default Stay-in-Touch Subject: From here, you can change the default Stay-in-Touch subject.
 - The default Stay-in-Touch Note: Here, you can enter a message to the recipient. You can also use a merge field. To use a merge field, navigate to the Available Merge Fields section available at the top of the page and select Fields Copy Merge Field Value from Copy Merge Field Valuebox and use it.
 - ° **The default Stay-in-Touch Signature**: Here, you can enter a signature with your contact information.
- 3. Click on Save. It will look like the following screenshot:



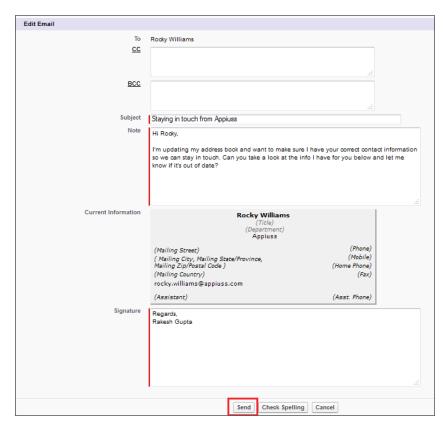
A request update

To send a request update to any contact, navigate to the **Contact** tab and go to the **Contact Detail** page of the person you want to send the request to. In our case, we want to send request update information to the contact, Rocky Williams. To do this, follow these steps:

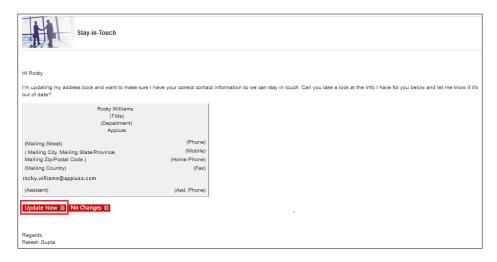
1. Click on the **Request Update** button as shown in the following screenshot:



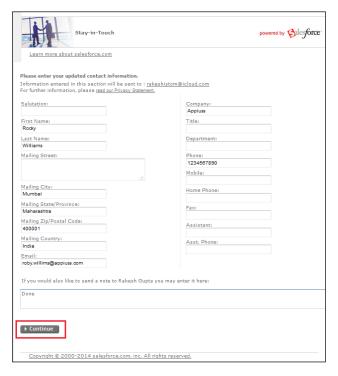
2. It will redirect you to the Send a Stay-in-Touch Request window from where you can add the CC and Bcc fields, and customize Subject, Note, and Signature. Once done, click on the Send button, as shown in the following screenshot:



3. The following e-mail is sent to the contact's e-mail address. Open the e-mail and click on the **Update Now** button.



4. It will redirect the user to a new screen from where the user can update their information. Once done, click on the **Update** button, as shown in the following screenshot:



- 5. Salesforce will send an e-mail to the owner of the record notifying them that there is an update for a particular contact for which they have requested an update.
- 6. Click on the **Click here to update your information** link if you want to update a contact.



- 7. It will redirect you to the Stay-in-Touch edit page from where you can accept or reject changes. Both the previous and new values will be shown in this window. Click on **Accept Changes** and Salesforce will update the contact; with this, the process will be complete.
- 8. In the following screenshot, you can see the updated contact:





To send a Stay-in-Touch request in mass numbers, you can use the **Mass Stay-in-Touch** tool available in the **Contact** tab under the **Tools** section.

Summary

In this chapter, we have gone through various ways to automate our business. We started with the validation rule and how it improves data quality and then moved on to the concept of formula field and Roll-up Summary field.

We also went through how to create a letterhead and e-mail templates. In the topic that followed, we covered the workflow rule and approval process in depth along with their various limitations. We also discussed various ways to approve records. Finally, we discussed the request update and the Stay-in-Touch concepts in detail. In the next chapter, we will discuss various methods of data management in Salesforce along with the concept of a data loader, import wizard, and data import wizard.

Concepts of Data Management

In the previous chapter, we discussed various ways to automate your business. We discussed the workflow rule and the approval process in Salesforce. We also discussed time-based workflow and a way to monitor a time-based workflows queue. In this chapter, we will discuss various concepts related to data management in Salesforce. We will also discuss creating Sandbox and Tags concepts in Salesforce. The following topics will be covered in this chapter:

- Salesforce Record IDs
- Data management operations
- Various tools used for data management
- Truncating custom objects
- Sandboxes
- Deleting all data
- Data export service
- Getting storage usage details
- Mass transfer approval requests
- Mass transfer records
- Mass delete records
- Mass reassign accounts and the opportunity team
- Uses of Tags

Salesforce Record IDs

Before going ahead with discussing the concept of the data management, you have to understand the concept of Record IDs in Salesforce. As soon as you create any record in Salesforce, it will automatically generate a Record ID for you. The Record ID is a unique identifier of a record. We can get Record IDs in the following ways:

- From the URL of the record detail view
- By running the reports
- From the web services API
- From the formulas
- From the data loader

Salesforce provides two types of Record IDs. They are as follows:

- A 15-digit case-sensitive form: When you create a record from Salesforce UI, it will give you a 15-digit ID. We can use this in the URL and report. Reports do not expose IDs for all objects.
- An 18-digit case-insensitive form: When we work with the data loader or an API tool, it will return an 18-digit ID. You can use this in the data loader. The API always returns the Record IDs in an 18-digit format, but you can use either the 15-digit or 18-digit format with the API tool.

Data management operations

Until now, we have discussed various configuration features available in Salesforce. As soon as you are done with building a data model and the related development, the next task is to migrate data from the legacy system to Salesforce or to mass update data in Salesforce. There are various data management operations possible with data management tools as follows:

- **Insert**: This operation is used when you want to create new records for standard or custom objects of your organization. For example, you can use this feature to create an account in Salesforce.
- Update: This operation is used when you want to update an existing record in Salesforce, for example, if you want to update the account type for an existing account.

- Export: Salesforce provides various ways to export your data. By using this
 operation, you can download all the data of the organization for backup
 purposes or some other reason. You can also use this operation to get
 reference IDs of particular records to perform an insert or update operation
 on those records.
- **Upsert**: This operation is a combination of insert and update. Let's start with an example where Appiuss management wants to update thousands of account records based on Salesforce Record IDs, but at the same time, they also want to ensure that no Record ID exists in Salesforce, and then create those records.
- **Delete**: This operation is used when you want to delete records from Salesforce. To delete a record, you require a Salesforce ID.

Tools for data management

Salesforce provides various tools to manage your data. By using these tools, you can easily process thousands of records in a single transaction. A few tools are browser-based and a few have to be installed on your workstation. You do not have to pay any extra for these tools. The following is a list of tools provided by Salesforce:

- Import Wizard (browser-based)
- Data Import Wizard (browser-based)
- Data loader (installable)

Import Wizard

To import data in Salesforce, you can use Import Wizard. Import Wizard only supports account, contact, lead, solutions, and custom objects. It means you can use Import Wizard to import data in Salesforce only for these objects. Let's start with an example where the management in Appiuss wants to import data for a Sponsor object.

Creating a CSV file

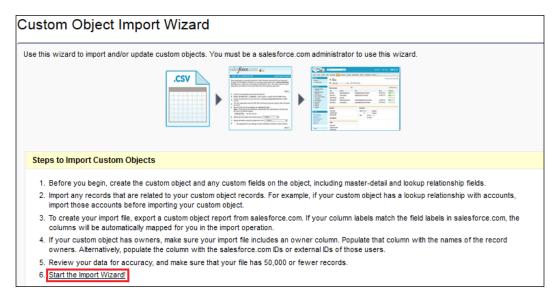
To import data, first we have to create a Comma separated values (CSV) file. Initially, list down all the fields that require you to create a Sponsor record in Salesforce. We also require an Owner ID, which indicates who you want to assign these records to in Salesforce; in our case; it will be Rakesh Gupta's user ID. You can obtain the user ID by the user's detail page URL. Finally, our CSV file will look like the following screenshot:

Name	Туре	Donation for Child Welfare	Donation for Women Welfare	OwnerID
Packt Publishing	Silver	300	300	00590000001qt4z
Universal Container	Gold	200	200	00590000001qt4z
Appiuss	Silver	100	100	00590000001qt4z

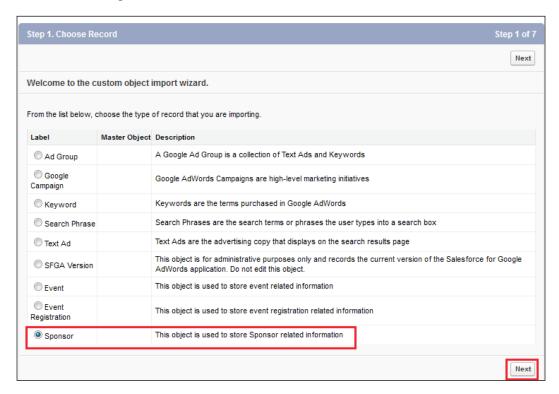
Import records into Salesforce through Import Wizard

To start importing data using Import Wizard, follow these instructions:

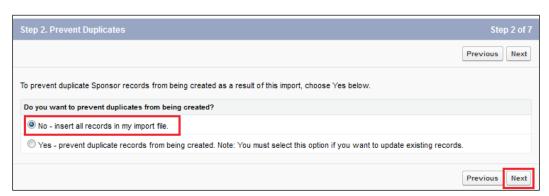
- 1. Navigate to Setup | Administer | Data Management | Import Custom Objects.
- 2. On the **Custom Object Import Wizard** page, click on the **Start the Import Wizard!** link, as shown in the following screenshot:



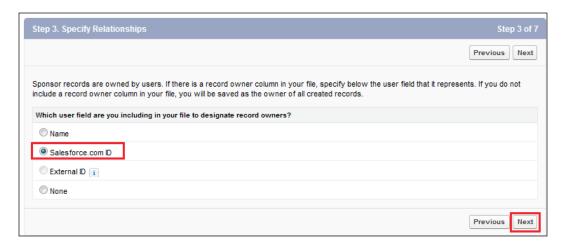
3. It will open another window; select the **Sponsor** object as shown in the following screenshot, and click on **Next**:



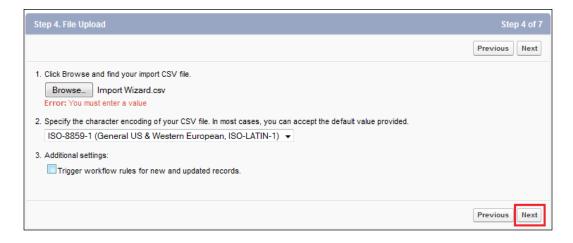
4. On the next screen, you can choose whether you want to prevent duplicates from being created. In our case, select **No** and click on **Next** as shown in the following screenshot:



5. On the next screen, you can specify the user field that CSV represents. In our case, the CSV file already has a user ID, so select **Salesforce.com ID** and click on **Next**, as shown in the following screenshot:



6. After that, select your CSV file and character encoding, and optionally, you can select Trigger workflow rules for new and updated records so the trigger will not fire when an import operation occurs for a current transaction. Finally, it will look like the following screenshot. Then, click on Next.



7. On the next screen, you can map the file between CSV and object fields. On the next screen, you can map the column of the CSV file and object fields. In the CSV file, if you use the same name for the field, it will be auto-mapped. Make sure it looks like the following screenshot and then click on **Next**:

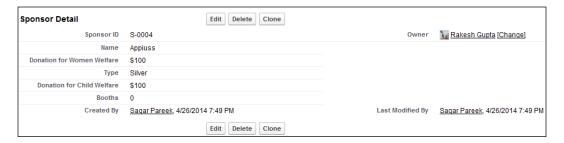


8. On the next screen, it will show the message Click Import Now! to submit this import request to salesforce.com. Click on the Import Now! button as shown in the following screenshot:



9. Salesforce.com will now begin to import your file. You will be notified by e-mail when your import is completed. It will also show the estimated time to finish this import operation. Click on the **Finish** button to complete this process.

10. As soon as this process is completed, a record is created in Salesforce. To check this, go to the **Sponsor** object and verify. The following screenshot shows that our import process completed successfully:



Data Import Wizard

In the Spring '14 release, Salesforce launched Data Import Wizard. It provides an integrated interface that lets you import data for custom and standard objects, including accounts, contacts, leads, and solutions. It provides the same features as Import Wizards provide, but Data Import Wizard uses a bulk API to process the request so that it can process data faster than Import Wizard. We will create a few records for a Sponsor object. To do that, first create a CSV file with the following details for the Owner ID. You can choose your user ID. Your CSV file will look like the following screenshot:

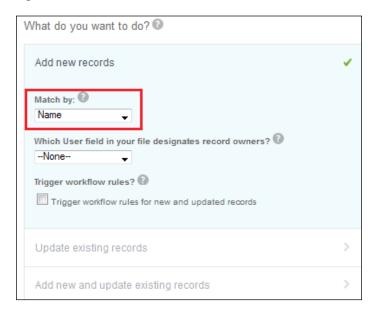
Name	Туре	Donation for Child Welfare	Donation for Women Welfare	OwnerID
Robby williams	Platinum	1000	500	00590000001qt4z
Appiuss Inc	Platinum	1500	400	00590000001qt4z
UC NGO	Platinum	1500	500	00590000001qt4z

Importing records into Salesforce through Data Import Wizard

To start importing data by using Data Import Wizard, follow these instructions:

- 1. Navigate to Setup | Administer | Data Management | Data Import wizard.
- 2. On the screen, click on the **Launch Wizard** button to start it.
- 3. On the next screen, under the **What kind of data are you importing?** section, click on the **Custom object** tab, and select the **Sponsor** object.

4. On the same screen, under the **What do you want to do?** section, click on **Add new records**, and under **Match by**, select **Name** as shown in the following screenshot:



5. Then, select your CSV file. Here, you can either drag-and-drop or browse for your file. This is a major advantage over the old Import Wizard. The result will look like the following screenshot:



6. As soon as you are done with file selection, click on **Next** to move on to mapping a field page.

7. If you use the same name for the field in your CSV file, Salesforce will automatically map the fields, else you will have to do it manually. To change the field mapping, click on the **Change** link, as shown in the following screenshot, and then click on **Next**:



8. On the final screen, you will be given an option to review what you have selected until now, for example, the object, operations, and file that you selected. It will also give you an idea of the number of fields you mapped.



9. Once you are done with the review, click on the **Start Import** button to start the import process. As soon as the import process is completed, you will get an intimation e-mail from Salesforce regarding the success and error report.

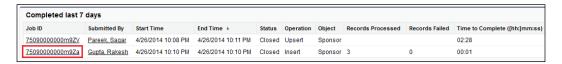
Monitoring bulk data load jobs

To monitor the status of the recent data load job for Data Import Wizard, follow these instructions:

- 1. Navigate to **Setup** | **Monitor** | **Jobs** | **Bulk Data Load Jobs**.
- 2. You will get the **Quota** details, such as **CPU**, **IO**, and **Disk**, for the last 24 hours.

Quota Your organization has processed 0 batches in the last 24 hours. Your organization can process 5,000 batches in a 24-hour period. Resource used in the last 24 hours: CPU: 0 milliseconds IO: 0 bytes Disk: 0 bytes

- 3. Navigate to the **Completed last 7 days** section to get more details about the completed job or navigate to the **In Progress** section to get more details about the jobs that are in progress.
- 4. Click on **Job ID** to go to the detail page.



5. On the detail page, you will find **Start Time**, **End Time**, **Status**, **Operation**, **Records Processed**, **Records Failed**, **Total Processing Time** (ms), PI Active **Processing Time** (ms), and many more options.



To learn more about Data Import Wizard, visit https://help.salesforce.com/HTViewHelpDoc?id=data_import_wizard.htm&language=en_US.

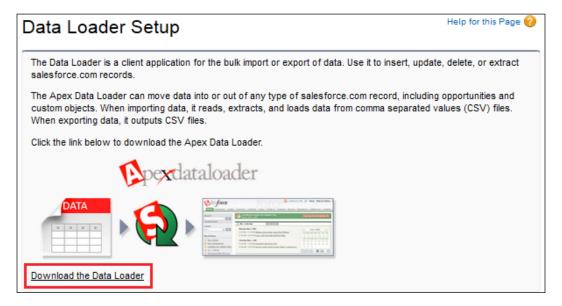
Data loader

Data loader is another tool used in data management activities. It is a desktop application for Windows, and is not supported in any other browser. To use this application, you first have to install it in your workstation. Data loader is a very powerful tool compared to Import Wizard and Data Import Wizard. It provides various functionalities such as Insert, Delete, Update, Upsert, and Export. This tool is freely available, which means you do not have to pay any extra to Salesforce to get this tool.

Installing data loader

To install data loader in your workstation, follow these instructions:

- 1. Navigate to Setup | Administer | Data Management | Data Loader.
- 2. You will be redirected to the **Data Loader Setup** page; now click on the **Download the Data Loader** link as shown in the following screenshot:



3. Once the download is completed, double-click on the installable file and follow the instructions that appear on the screen.



If you want to download the old version of data loader, visit http://www.cloudsuccess.com/resource-centre/apex-data-loader-archive/.

Configuring data loader

Salesforce gives you the flexibility to configure data loader according to your needs. First, open your data loader by double-clicking on the icon and following these instructions:

1. Go to **Settings** under the **Settings** tab, as shown in the following screenshot, to open the settings page:



- 2. This will open the data loader setting page, where you will be able to change the value for various fields. Here, we will discuss a few important fields:
 - Batch size: This defines the batch size for a transaction
 - Insert null value: Select this when you want to assign a null value to a field
 - Server host: Set the URL according to your requirements. If you are logged in to the developer or production environment, use https://login.salesforce.com/, and for Sandbox, use https://test.salesforce.com/
 - ° **Time zone**: Use this field to set the time zone
 - Proxy host: Use this field to set the proxy host
 - ° **Proxy Port**: Use this field to set the proxy port
 - Proxy usernames: Use this field to set the proxy username
 - Proxy Password: Use this field to set the proxy password
 - ° **Start at row**: Here, you can set a numerical value so that it can start the CSV file process from that row
- 3. Once you are done with the setup, click on the **OK** button.

Exporting data using data loader

With a single click, you can export your data from Salesforce. In this example, we will export all the data from the Event Registration object. To export data, follow these instructions:

1. Click on the **Export** button as shown in the following screenshot:

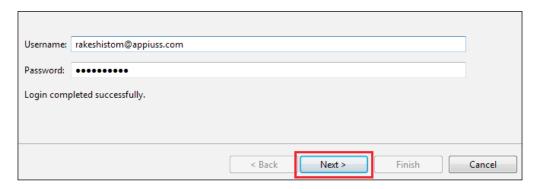


 Log in to data loader by using your Salesforce credentials. In the Username field, enter your Salesforce username, and in the Password field, enter your Salesforce password followed by the security token, and click on the Login button.

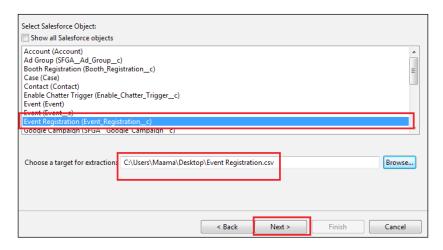


To avoid the security token with your password, whitelist your IP address. You can then log in to the data loader with your username and password without using the security token.

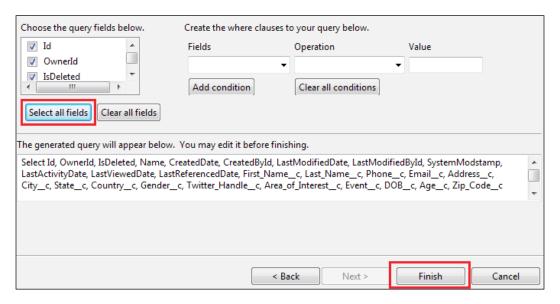
3. After a successful login, the **Next** button will be enabled. Click on it as shown in the following screenshot:



4. On the next screen under **Select Salesforce Object**, in our case, select the **Event Registration** object and enter a location in your local workstation where you want to store the extracted file in the **Choose a target destination for extraction** field. Once done with the selection, click on **Next**, as shown in the following screenshot:



5. On the last screen, you can choose the fields from which data needs to be extracted, and this tool gives you the flexibility to write a query in case you want to extract data based upon some requirements. In our case, first click on the **Select all fields** button and then on the **Finish** button to start this process. You can see this in the following screenshot:



6. As soon as this process completes, you will get a message on the screen that displays how many records were extracted, as shown in the following screenshot:



7. Click on the **View Extraction** button to open the extracted file, as shown in the preceding screenshot.



To learn more about the data loader functionality, visit https://help.salesforce.com/apex/HTViewHelpDoc?id=inserting_updating_or_deleting_data.htm&language=en.

Differences between data loader and Import Wizard

The following table lists a few differences between data loader and Import Wizard. It will help you understand when to use data loader and when to use Import Wizard.

Features	Import Wizard	Data loader	
Available editions	Contact Manager, Group, Professional, Enterprise, Unlimited, Performance, and Developer	Enterprise, Unlimited, Performance, Developer, and Database	
Success/error files	No	Yes	
Object supported	Account, contact, lead, solutions, and custom objects	All	
Number of records you can import or export	Up to 50,000	In between 5,000 to 5 M	
Import	Yes	Yes	
Export	No	Yes	
Schedule import/export	No	Yes	
Alert for duplicate	Yes	No	
Choose whether to trigger workflow rule	Yes	No	
Save mapping file for later use	No	Yes	
External or internal to Salesforce	Internal	External	

Truncating custom objects

Truncating a custom object allows Salesforce to delete all records from particular objects and save the empty object and its metadata. This is a fast way to delete all records from custom objects compared to Import Wizard and Data Import Wizard. This action will remove records from custom objects and you cannot recover them from the recycle bin.

Enabling truncate for custom objects

Before using this feature for your organization, you must enable it. To do this, follow these instructions:

- 1. Navigate to Setup | Build | Customize | User Interface.
- 2. On the user interface page, navigate to the **Setup** section.
- 3. Select the **Enable Custom Object Truncate** checkbox, as shown in the following screenshot:



4. Click on **Save**.

Performing truncate for custom objects

You can use this feature when you have created a custom object and filled it with test records. To delete those test records with a single action, you can use this feature.

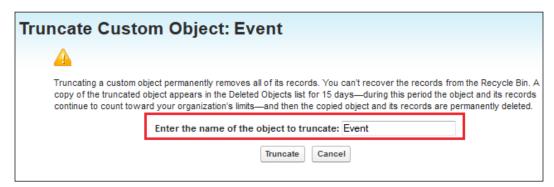
To perform this action, follow these instructions:

- 1. Navigate to Setup | Build | Create | Objects.
- 2. Identify the object on which you want to perform this action and click on an object name to go to its detail page. In our case, select **Event Object**.

3. Click on the **Truncate** button, as shown in the following screenshot:



4. It will pop up a window. Read the warning message carefully and type the object name as shown in the following screenshot:



5. Click on the **Truncate** button to complete the process.



When you truncate a custom object, Salesforce stores a copy of the truncated object in the deleted objects' list for 15 days, and it will count against your organization's limit. After 15 days, the records will be erased permanently and will no longer count against your limits.

Sandbox

Sandbox is a playground that an organization can use for development or testing purposes. In simple words, it is a copy of your production organization. It is completely isolated from your production organization; it means the action that you perform on your Sandbox is not affected in the production organization. Let's start with an example; Salesforce will not allow us to write or change the Apex code in the production organization. In that case, the organization can use the developer Sandbox to develop the application by using the Apex code and move it from one production to other when it's ready to be deployed.

Types of Sandboxes

Salesforce comes up with a few types of Sandboxes for your organization. You can use them as per your requirements. When you purchase licenses from Salesforce.com for your organization, you can negotiate and get multiple Sandboxes at that time. Salesforce also allows you to buy a Sandbox any time you need it. The various types of Sandboxes are as follows:

- **Developer Sandbox**: This is a configuration-only Sandbox. You can use this type of Sandbox for coding and testing purposes with a single user. In Developer Sandbox, multiple users can log in, but the main purpose of this Sandbox is that it provides an isolated playground to the developer where they can write a code and test the functionality. This Sandbox's storage limit is limited to 200 MB. You can refresh a Developer Sandbox once per day.
- Developer Pro Sandbox: This type of Sandbox copies all your production reports, dashboards, price books, products, apps, and customization under the Setup option, but it excludes all records from standard and custom objects, document, and attachments. This type of Sandbox takes minimal time to create and refresh. You can refresh a Developer Pro Sandbox once per day.
- Partial Data Sandbox: This type of Sandbox contains organization metadata
 with a selected amount of data from production that you defined on Sandbox
 temples. Partial Data Sandbox is available for Enterprise, Performance,
 and Unlimited Editions. You can refresh your Partial Data Sandbox from
 production every 29 days. This Sandbox contains a maximum of 5 GB data
 and 10,000 records.
- Full Copy Sandbox: This copies your entire production organization with data and metadata. You can include standard and custom object records, attachments, and documents. You can refresh your Full Copy Sandbox from production every 29 days. The Record ID in Full Copy Sandbox and the Production Sandbox are identical.



Sandbox is only available in Enterprise, Unlimited, and Performance Editions

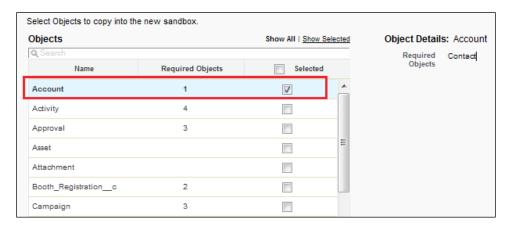
Defining the Sandbox templates

The Sandbox templates allow your organization to specify objects and data to copy to your Full or Partial Data Sandbox, so that your organization can control the size and content of each Sandbox. Sandbox templates are only available for Full or Partial Data Sandbox. When you create a Sandbox template, you select the object data (standard and custom) to copy. To create a new Sandbox template for your organization, follow these instructions:

- 1. Navigate to Setup | Deploy | Sandboxes.
- 2. Click on the **Sandbox templates** tab, and then click on the **New Sandbox Template** button as shown in the following screenshot:



3. This will redirect you to the **New Sandbox Template** creation page where you enter the **Name** and **Description** for the Sandbox template, and select the object by selecting the checkbox available in front of each object:

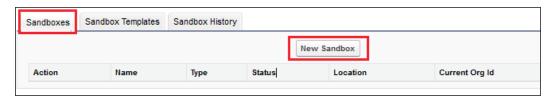


4. Click on Save.

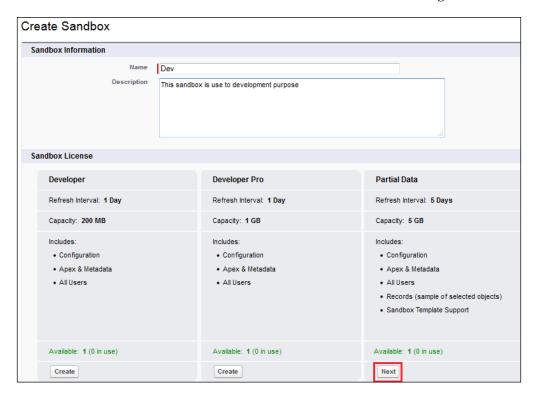
Creating a Sandbox

When you create a new Sandbox, Salesforce will automatically copy your data from the production organization into the new Sandbox. For Partial Data Sandbox and Full Copy Sandbox, it will refer to the Sandbox template. To create a new Sandbox, follow these instructions. In this example, we will create a Partial Data Sandbox.

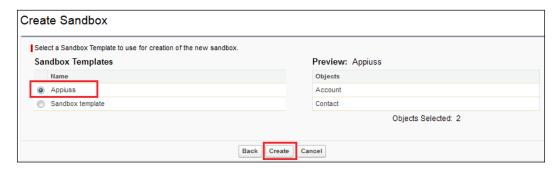
- 1. Navigate to **Setup** | **Deploy** | **Sandboxes**.
- 2. Click on the **Sandboxes** tab and then click on the **New Sandbox** button, as shown in the following screenshot:



3. This will redirect you to a new **Create Sandbox** page where you can enter the **Name** and **Description** for the new Sandbox and select the Sandbox type. In our case, select **Partial Data** Sandbox as shown in the following screenshot:



4. On the next screen, you have to select the Sandbox templates and click on **Create** as shown in the following screenshot:



5. As soon as the Sandbox creation is completed, you will get an intimation e-mail from Salesforce stating that your Sandbox is ready to use.



Your Sandbox credentials will be the same as that of production except that the username will be appended with the .sandbox name. In our case, if the production username is abc@appiuss.com, then the Sandbox username will be abc@appiuss.com.dev.

Refreshing the Sandbox

You can only refresh a Sandbox from your production organization. The benefit of refreshing your Sandbox is that it is in sync with the production environment data and metadata, according to the Sandbox type you choose to refresh. Before going ahead, first identify the Sandbox you want to refresh. To refresh a Sandbox, follow these instructions:

- 1. Navigate to **Setup** | **Deploy** | **Sandboxes**.
- 2. Click on the **Refresh** link available on front of each sandbox name, as shown in the following screenshot:



3. This will pop up a warning message stating that All Objects, settings and records in this sandbox will be replaced after the refresh is complete. Click on the Refresh button to start this process, as shown in the following screenshot:



4. The refresh time depends upon your metadata and records in the production organization.

Deleting all the data

If you have a trial account of Salesforce, and at any time you decide to delete all the data including the sample data, that is, the data you stored in the Salesforce trial organization, follow these instructions:

- 1. Navigate to Setup | Data Management | Delete All Data.
- 2. Salesforce will request you to enter text to state that you understand all data will be deleted:



3. Click on the **Submit** button as shown in the preceding screenshot to complete this process.



Data Export Service

Before you plan to import any mass data into your Salesforce organization, it is highly recommended that you take a backup of your existing data prior to the import. Salesforce.com provides a weekly Data Export Service, which exports all your data into the .csv files of 150 MB each and packs them into a .zip file of 512 MB. The number of files generated depends on the data in your organization. Data Export Service sends a link to the administrator via an e-mail where they can download the files from. Administrators can schedule the export every 29 days for the Professional Edition and every seven days for the Unlimited and Enterprise Editions.



This service is only available to Unlimited, Professional, and Enterprise Editions.

Salesforce provides two ways to use the export services as follows:

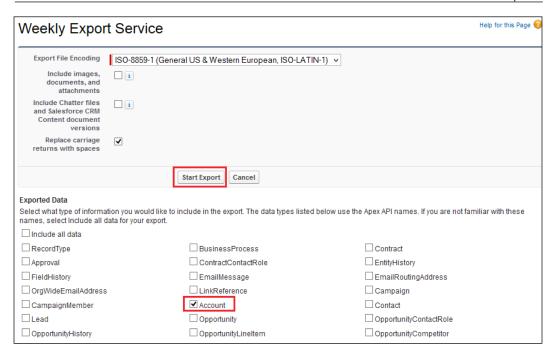
- **Export Now**: Use this feature to export the data right away
- Schedule Export: Use this feature whenever you want to schedule the export service

To make use of the Data Export Service, follow these instructions. In this example, we will use the **Export Now** feature.

- 1. Navigate to Setup | Administer | Data Management | Data Export.
- 2. Click on the **Export Now** button as shown in the following screenshot:



3. Now you need to select **Exported File Encoding**. The data must include the attachments or not, and the Chatter files and Salesforce CRM content document versions.



- 4. Select the objects whose data you want to export. In our example, select the **Account** object and click on the **Start Export** button as shown in the preceding screenshot.
- 5. As soon as the export completes, you will get an e-mail notification with data attached in a ZIP file format.

Get the storage usage details

Your records or attachments count against some storage usage. Salesforce provides a set of storage to the user in an organization, which is used to store the organization data. Salesforce provides mainly two types of storage:

- Data storage
- File storage

Data storage

Data storage includes accounts, article types, article type translations, campaigns, campaign members, cases, case teams, contacts, contracts, custom objects, e-mail messages, events, forecast items, Google Docs, ideas, leads, notes, opportunities, opportunity splits, quotes, quote template rich text data, solutions, tag applications, unique tags, and tasks.

The following table shows the data storage provided by Salesforce:

Salesforce Edition	Per organization's minimum data storage	Per user license's data storage allocation
Contact manager	1 GB	20 MB
Group	1 GB	20 MB
Professional	1 GB	20 MB
Enterprise	1 GB	20 MB
Performance	1 GB	120MB
Unlimited	1 GB	120MB
Developer	5 GB	Not applicable

As the preceding table states, the Contact manager, Group, Professional, Enterprise, Performance, and Unlimited Salesforce Editions are allocated either 1 GB data storage limit or a per-user data storage limit, whichever is greater.

Let's start with an example. An Enterprise Edition organization with 20 users receives 1 GB, as 20 users multiplied by 20 MB per user is 400 MB, which is less than the 1 GB minimum, whereas a Professional Edition organization with 200 users receives more than the 1 GB minimum, as 200 users multiplied by 20 MB per user is 4,000 MB.

File storage

File storage counts files in attachments, documents tab, files tab, file field, Salesforce CRM Content, Chatter (including user photos), and Site.com assets. The following table shows the file storage provided by Salesforce:

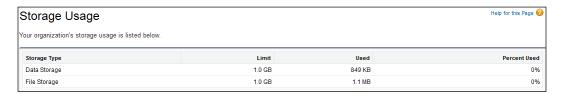
Salesforce Edition	Per organization's minimum file storage	Per user license's file storage allocation
Contact manager	11 GB	612 MB
Group	11 GB	612 MB
Professional	11 GB	612 MB
Enterprise	11 GB	2 GB
Performance	11 GB	2 GB
Unlimited	11 GB	2 GB
Developer	20 MB	Not applicable

The preceding table shows the data storage provided by Salesforce Contact manager, Group, Professional, Enterprise, Performance, and Unlimited Editions are allocated a per-user limit multiplied by the number of users in the organization, plus an additional per-organization allocation.

Let's start with an example. An Enterprise Edition organization with 1,200 users receives 2,422 GB of file storage or 2 GB per user multiplied by 1,200 users plus an additional 11 GB, whereas a Professional Edition organization with 1,200 users receives about 740 GB of file storage or 612 MB per user multiplied by 1,200 users and an additional 11 GB.

You can get both of the storage details for your organization by following these instructions:

1. Navigate to Name | Setup | Administration Setup | Data Management | Storage Usage.

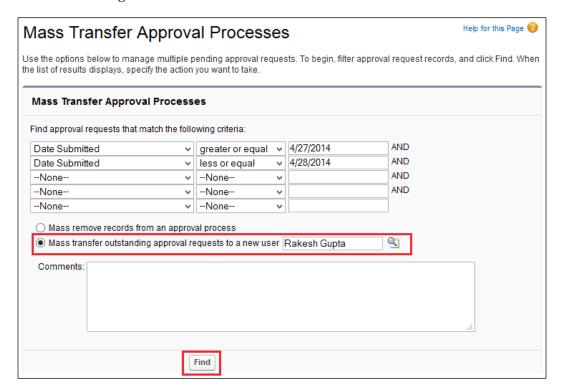


2. Select the Current Data Storage Usage section to get the data storage usage details, and select the Current File Storage Usage section to get the file storage usage details. If you want to know about the top data storage users for your organization, then navigate to the Top Users by Data Storage Usage section, and if you want to know about the top file storage users, then navigate to the Top Users by File Storage Usage section.

Mass transfer approval requests

If an approval request approver is absent or has left the organization, then you'll be required to transfer the pending approval request to a new user. Let's start with an example. An Appiuss user, Sagar Pareek, is on leave for a few days (from April 27, 2014 to April 28, 2014), and the system administrator decides that any approval requests in the absence of Sagar Pareek will be transferred to Rakesh Gupta; to do this, follow these instructions:

- 1. Navigate to Setup | Administer | Data Management | Mass Transfer Approval Requests.
- 2. On the next screen, enter the criteria to search for the approval requests. For the preceding scenario, we need to enter the criteria, as **Date Submitted** must be between 4/27/2014 to 4/28/2014.
- 3. Select the radio button Mass transfer outstanding approval requests to a new user, select Rakesh Gupta, and then click on Find as shown in the following screenshot:



4. Now, under this section, you can see the result matching the criteria. Select the appropriate result (in our case, all) and click on the **Transfer** button to transfer it to a new approver, as shown in the following screenshot:

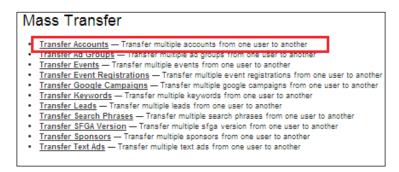


5. Now, the selected approval requests will be transferred to the user defined in the criteria.

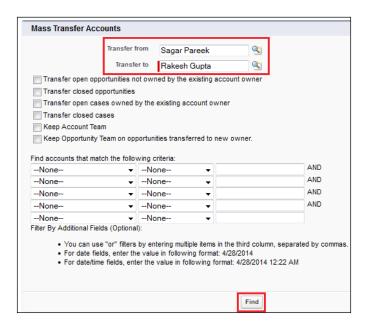
Mass transfer record

Sometimes, it is required to transfer the ownership of the records to another user. Let's start with the example from the preceding scenario. As Sagar Pareek left the organization, the system administrator wants to transfer his account's ownership to Rakesh Gupta. To do this, follow these instructions:

- 1. Navigate to Setup | Administer | Data Management | Mass Transfer Records.
- 2. You will see a list of available objects. Click on **Transfer Accounts** as we want to transfer an account.



3. On the next screen, enter the **Transfer from** and **Transfer to** fields and the search criteria.



- 4. As soon as you are done with entering the criteria, click on the **Find** button to get all records that matched with your search criteria, as shown in the preceding screenshot.
- 5. Now, you will see the records that match the criteria in another section, just below the search section.



6. Select the records and click on the **Transfer** button to transfer the records to their new owner, as shown in the preceding screenshot.



To learn more about the mass transfer record functionality, visit https://help.salesforce.com/htviewhelpdoc?id=admin_transfer.htm&siteLang=en_US.

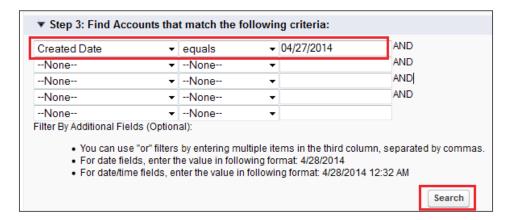
Mass deleting records

You need to mass delete records in your organization when incorrect information is filled in the record or during a mass upload if something goes wrong. Let's start with an example about the organization Appiuss. One of the users performed a mass upload and forgot to put the industry type for every account that was uploaded. The system administrator has decided to delete all these records that were uploaded on April 27, 2014; to do this, follow these instructions:

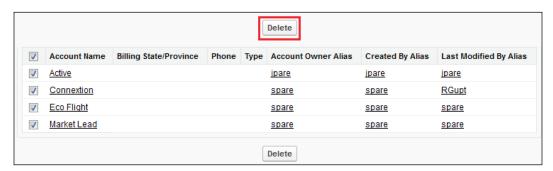
- 1. Navigate to Setup | Administer | Data Management | Mass Transfer Approval Requests.
- 2. You will see a list of available objects that you can mass delete. Select **Mass Delete Accounts** in our case.



3. Navigate to Step 3: Find Accounts that match the following criteria on the screen, enter the search criteria in our scenario, select Created Date equals 04/27/2014, and click on the Search button to get all the records that match the search criteria, as shown in the following screenshot:



4. Select the records you want to delete and click on the **Delete** button, as shown in the following screenshot:



5. You can also select the **Permanently delete the selected records** option. When this option is selected, you cannot restore any deleted records from the Recycle Bin. Please be careful when selecting this checkbox as doing this deletes records permanently.



To learn more about the mass delete record functionality, visit https://help.salesforce.com/htviewhelpdoc?id=admin_massdelete.htm&siteLang=en US.

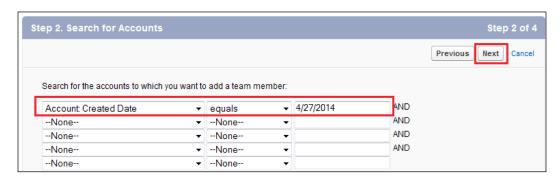
Mass reassign accounts and opportunity teams

To manage your organization teams better with distribution of management of records, you may wish to reassign a particular set of records from one team to another. You can reassign the account and opportunity records to teams in Salesforce. For example, we want to add a new team member Robby Williams to an existing account and an opportunity team for the records created on the date April 27, 2014. In order to do that, follow these instructions:

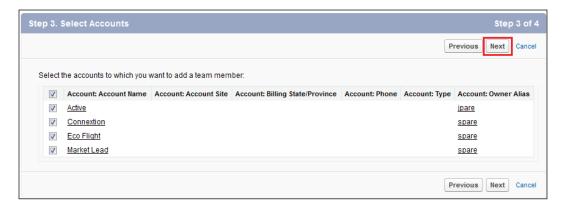
- 1. Navigate to Setup | Administer | Data Management | Mass Reassign Account Teams.
- 2. Now, select **Add an account team member** and click on **Next** as shown in the following screenshot:



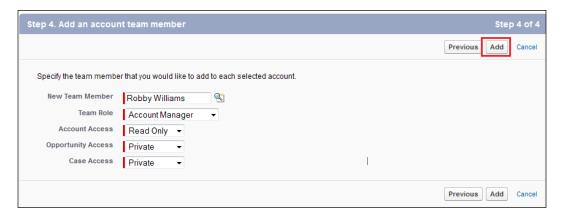
3. Enter the search criteria on the next screen, as **Created Date equals 4/27/2014**, and click on **Next**, as shown in the following screenshot:



4. On the next screen, select the accounts for which you want to assign this member in the team. In our case, select all records and click on **Next** as shown in the following screenshot:



5. On the next screen, specify the new team member that you want to assign to those selected records; in our case, select the user Robby Williams. Also, specify the Team Role, Account Access, Opportunity Access, and Case Access fields. You can see this in the following screenshot:



- 6. Once done, click on the **Add** button to start this process.
- 7. On the next screen, you will get a success message. Click on the **Done** button to complete this process.

8. In a similar way, you can mass reassign opportunity teams by navigating to Setup | Administer | Data Management | Mass Reassign Opportunity Teams and then following the preceding instructions.



To learn more about the mass reassign account and an opportunity team, visit https://help.salesforce.com/htviewhelpdoc?id=admin_reassign.htm&siteLang=en_US.

Tags

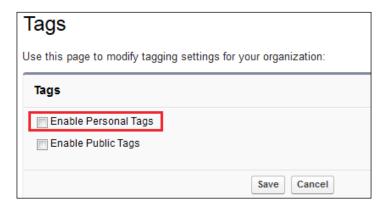
Tags are some keywords that you can use with your records to make a search easier and organize the records in your personalized way. For example, in your organization, you have thousands of account records, but you want to organize the accounts that were created in the summer of 2014, so that the next time you search for the account records, you simply need to search summer 2014.

There are two types of tags that are provided by Salesforce:

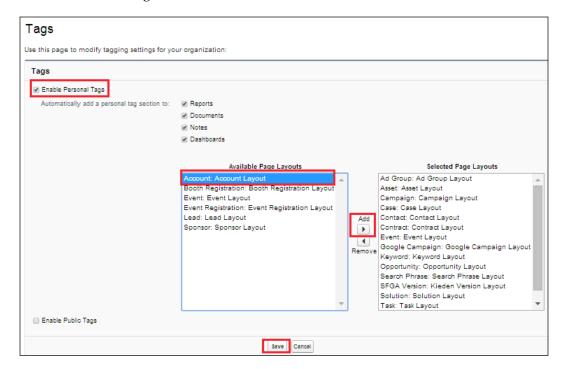
- Personal Tags: These are private to a specific user.
- **Public Tags**: These are public and available for all users.

To use the tags feature, you need to enable it. To enable tags, follow these instructions:

- 1. Navigate to Setup | Build | Customize | Tags | Tab Settings.
- 2. Select **Enable Personal Tags** as shown in the following screenshot:



3. Select the layout on which you want to show the tagging feature. In our case, select the **Account Layout** option and click on the **Save** button, as shown in the following screenshot:



4. Now, go to any of the account record detail pages and you will see a button **Add Tags** as shown in the following screenshot:



5. Enter the tag that you want to give to this account; in our case, enter Summer 14 and click on **Save** as shown in the following screenshot:



6. Now, the tag will be associated with this account, and you can see the related tags in the upper-right corner of the account.



In a similar way, you can enable public tags, and they will be available to all users.

Summary

In this chapter, we went through various ways to manage our data in Salesforce. At the beginning of the chapter, we discussed different types of IDs in Salesforce. Then, we moved on and discussed various data management tools provided by Salesforce. We also went through the ways to create a Sandbox for an organization. In the next topic, we covered deleting all data and mass transfer approval requests. We also discussed how to mass transfer the ownership of a record to another user. Finally, we discussed mass delete records and tags. In the next chapter, we will discuss various types of reports and dashboards in Salesforce along with the concept of report and dashboard scheduling.

8

Reports and Dashboards in Salesforce

In the previous chapter, we discussed various ways of managing data for your organization. We explored the import wizard, data loader, and various data management operations in Salesforce. We also discussed Sandbox management in Salesforce. In this chapter, we will discuss various concepts related to reports and dashboards in Salesforce. We will also discuss various ways to share reports and dashboards in Salesforce. The following topics will be covered in this chapter:

- Report types
- Different types of reports
- Dashboard components and their types
- Exporting a report
- Using various methods to share reports and dashboards
- Hiding unused report types
- Exporting reports without footers
- Floating headers in summary and matrix reports
- Analytical snapshots

A report is a way to understand how efficiently your organization is performing. For example, your sales director wants to know the number of opportunities won in the current month or number of leads captured through Web-to-Lead to check whether this is beneficial for the organization or not. Salesforce provides various types of reports that you can use according to your requirements. The report data is always produced in real time. When you save a report, its configuration parameters are stored; however, the generated data is not stored. Reports will show the data as per running the user's security access.

We can create reports on both standard and custom objects. Reports are stored in folders and users who have access to these folders can run the reports. In the report, you will get only the records that you have access to, which means the organization's sharing policies and settings will apply to the report.

Understanding report types

By default, Salesforce comes with a few standard report types for standard objects and custom objects. If you select **Allow Reports** from the object setup page, then Salesforce will automatically create a few report types for you. This also allows you to create custom report types to fulfill your requirements. Report types are used to create a report.

Custom report types

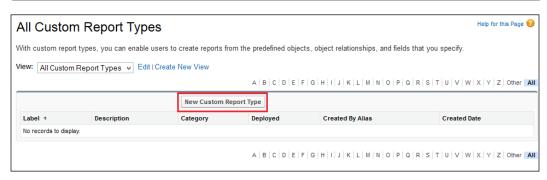
Custom report types allow you to build a structure in the report wizard from which users can create and customize reports. You can build custom report types for the relationships (master-detail and lookup) between objects that allow us to do the following:

- They help us choose which standard and custom objects to display to users who create and customize reports
- They help us define the relationships between the objects displayed and the users who create and customize reports
- They help us select which objects' fields can be used as columns in reports

Creating a custom report type

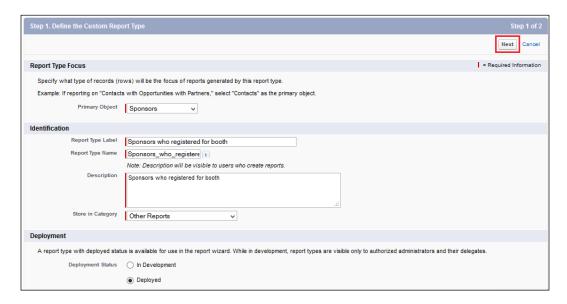
Here, we will create a custom report type to get a list of sponsors who opt for Booth Registration. To create custom report types, follow the ensuing steps:

- 1. Navigate to **Setup** | **Build** | **Create** | **Report Types**.
- 2. Click on the **New Custom Report Types** button to create new report types, as shown in the following screenshot:

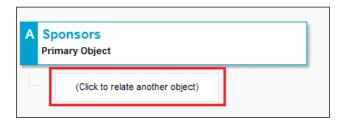


- 3. It will redirect you to the new custom report type page, where you have to fill in the following details:
 - Primary Object: This is used to select primary objects from all objects available in your organization, even those that you don't have permission to view. In our case, we will select the **Sponsor** object.
 - **Report Type Label**: This is used to enter the meaningful report type label. You can use up to 255 characters.
 - ° **Report Type Name**: This is used to enter the name of the report type.
 - Description: This is used to enter a description for your custom report type. You can use up to 1,000 characters.
 - Store in Category: This is used to select the category to store the custom report type. In our case, we will select the Other Report folder.
 - Deployment Status: This is used to select a deployment status. In our case, we will select deployed.

Finally, our screen will look like the following screenshot. Then, click on the **Next** button:

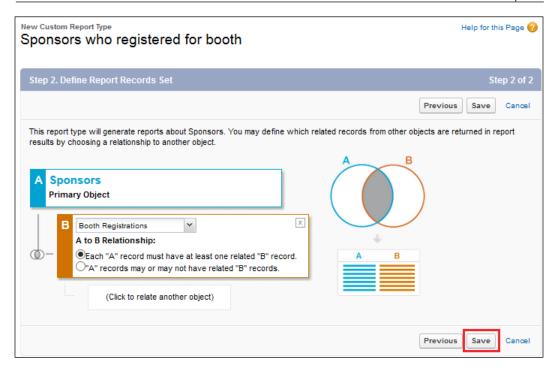


4. Now click on the **Click to relate another object** box, as shown in the following screenshot:



Object references can be used as the main four objects, as sources of fields via lookup, or as objects used to traverse relationships.

5. Select the **Booth Registration** object and then select checkbox. Each **A** record must have at least one object related to a **B** record, as shown in the following screenshot:



6. Click on Save.



You can't provide schedule fields, person account fields, history fields, and the age field on cases and opportunities in custom report types. You can add up to 1,000 fields to each custom report type.

Different types of reports

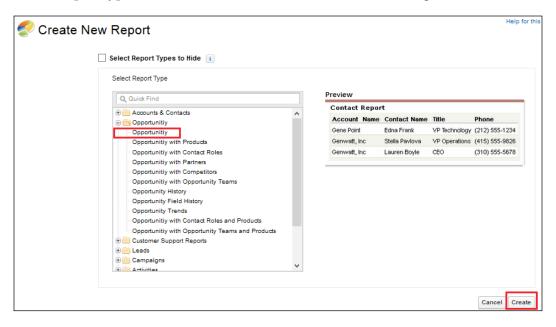
Salesforce provides various types of reports that you can use. The different types of reports are explained in the following sections.

A tabular report

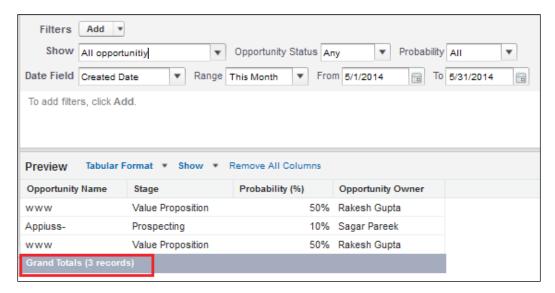
A tabular report is used to display rows of records in a tabular format with the grand total. Let's take an example where you have to display all the opportunities that are created in this month with the grand total. To create a tabular report, follow the ensuing steps:

1. Click on the **Reports** tab.

2. Now, click on the **New Report** button. It will redirect you to a page where you have to select report types. In our case, we will select the **Opportunity** report types, and click on **Create**, as shown in the following screenshot:



3. In the **Date Field**, select **Created Date**, and in **Range**, select **This Month**, and you will see the grand total. Finally, the report will look like the following screenshot:



4. Click on the **Save** button.

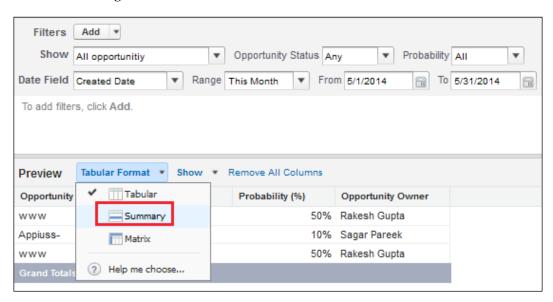


The tabular report is the only report type that allows you to limit the number of rows displayed.

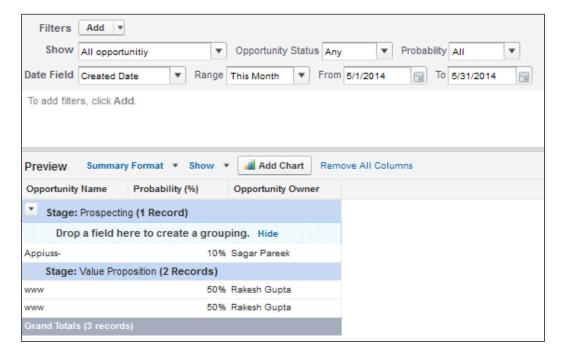
A summary report

A summary report is used to display the grouping of the rows of data. Let's take an example where you have to display **Opportunity** that is created in this month group stage. You can follow the instructions used in the tabular report. To change the report type, follow these steps:

1. Click on **Tabular Format** and select the **Summary** report, as shown in the following screenshot:



2. Drag-and-drop the **Stage** field to group the result, and it will look like the following screenshot:



3. Click on the **Save** button.

A matrix report

A matrix report is the most complex report format. A matrix report allows you to summarize data in a grid format. Matrix reports allow records to be grouped by both columns and rows.

A joined report

A joined report allows you to join two reports in the same place. A very simple use of a joined report is to show a comparison between sales in the current quarter and the last quarter.

A few noteworthy points about reports

The following are some noteworthy points about reports:

- You can create a dashboard only from the matrix and summary reports.
- A maximum of 2,000 rows will be displayed in a report. To view all the rows, export the report to Excel, or use the printable view for tabular and summary reports. For joined reports, the export option is not available, and the printable view displays a maximum of 20,000 rows.
- In the report builder, up to 20 rows will be displayed for summary and matrix reports and up to 50 rows for will be displayed in the tabular report.
- You can use five formulas per report.
- You can use up to 20 field filters in a report.
- To set the maximum number of records to display in a tabular report, click on **Add** and select **Row Limit** in a report builder.
- By default, reports time out after 10 minutes. You can contact Salesforce.com support to extend the time-out limit to 20 minutes for tabular, summary, and matrix reports, but no extension is available for joined reports. It will continue to time out after 10 minutes.
- Reports will show only the first 254 characters in a rich-text area or a long-text area.

Dashboard components and their types

A dashboard is graphical representation of a report. Dashboards will show data from the source report as a graphical component, which can be charts, gauges, and so on. The components provide a snapshot of key metrics and performance meters for your organization. You can use this when the management is interested to know about the numbers and a comparison based on same fields. A user can see all the details in a dashboard whether he has access to it or not, but once he drills down to the report, he will get only those records to which he has access. Dashboard components can be charts, tables, gauges, metrics, or any other component that you can create with Visualforce. A description of each component is as follows:

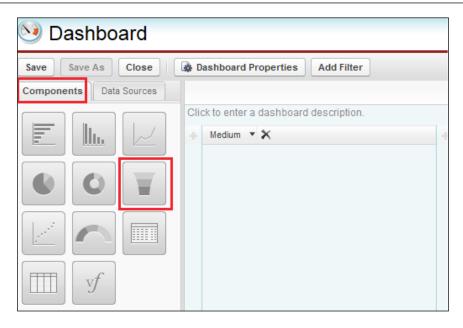
• **Chart**: You can use a chart when you want to show data graphically. You can choose from a variety of chart types.

- Gauge: You can use a gauge when you have a single value that you want to show within a range of custom values. For example, to create a dashboard that measures where your current lead amounts fall within a range of values, set Minimum Value, Breakpoint #1 Value, Breakpoint #2 Value, and Maximum Value for the gauge. The ranges that you set can indicate poor, acceptable, and good performance. You can set appropriate colors for each of these ranges to visually indicate progress.
- Metric: You can use a metric when you have one key value to display. For example, if you have a report that shows the total amount for all leads based on origin Web, phone, and newspaper for the current month, you can name that value and use it as a potential revenue target for the month displayed on the dashboard.
- **Table**: You can use a table to show a set of report data in a column form, for example, to see the top 20 accounts based on revenue.
- **Visualforce page**: You can use a Visualforce page when you want to create a custom component or when your requirement is not fulfilled by the available component.
- **Custom S-control**: Use custom S-controls when you want to display any type of content in a browser, for example, a Java applet, an Active-X control, an Excel file, or a custom HTML web form.

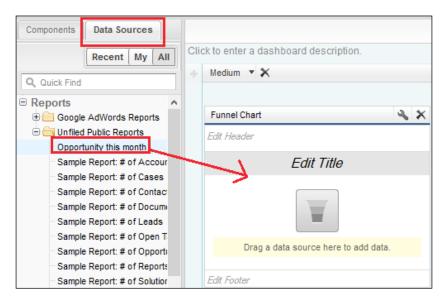
Creating a dashboard

Only a system administrator or a user who has **Run Reports** and **Manage Dashboards** permissions can create a dashboard. We will create a dashboard from the summary report. To create a dashboard, follow these steps:

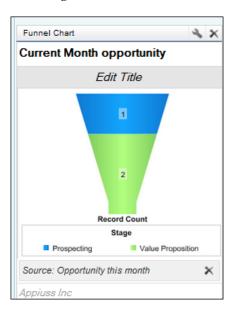
- 1. Click on the **Dashboard** tab.
- 2. Click on the **Go To Dashboard List** link available at the top-left corner of the page.
- 3. Click on the **New Dashboard** button to create a new dashboard.
- 4. Click on the **Components** tab and drag-and-drop the component on the dashboard builder. In our case, we will use the funnel chart as shown in the following screenshot:



5. Click on the **Data Sources** tab and drag-and-drop the report into the component, as shown in the following screenshot:



- 6. You can set **View Dashboard** as a filter. There are two possible options provided by Salesforce:
 - Run as specified user: By using this setting, all users will see the same data in the dashboard.
 - Run as logged-in user: If you select this, then the user will see the data according to his or her access rights. Also, you can't schedule a dashboard once you select this option.
- 7. Optionally, you can edit the header and footer, and finally your dashboard will look like the following screenshot:



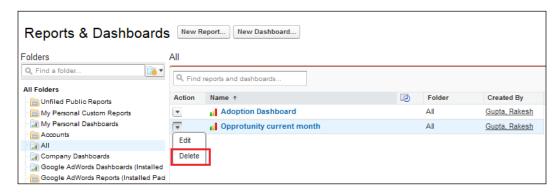
8. Click on Save.

Deleting a dashboard

If you no longer need a dashboard, you can delete it from the system. To delete a dashboard, follow these steps:

- 1. Click on the **Dashboards** tab.
- 2. Click on the **Go To Dashboard List** link available at the top-left corner of the page.
- 3. Choose the folder where you have stored the dashboard.

4. Click on the **Delete** link next to the name of the dashboard, as shown in the following screenshot:



Once you delete the dashboard, it is moved to the recycle bin. Deleting a dashboard also deletes the components within it. However, it doesn't delete the custom reports used by the components.

A few noteworthy points about dashboards

The following are the noteworthy points about dashboards:

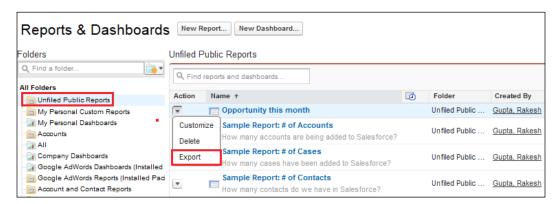
- A dashboard filter can have up to 50 options. By default, 10 options are enabled. If you want to enable more, contact the Salesforce.com support team to extend your limit.
- Each dashboard can have up to 20 components.
- A dashboard table or chart can display up to 20 photos.
- You must wait at least one minute between dashboard refreshes.

Exporting a report

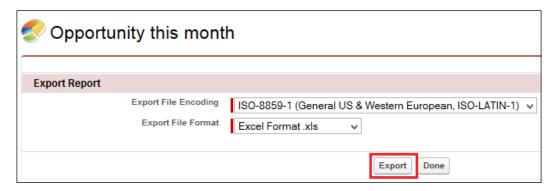
Salesforce provides a way to export reports in an Excel or CSV format. Let's take an example where your manager wants to get all records from a report in an Excel format to share it with the higher management. To export a report, follow these steps:

1. Click on the **Reports** tab.

2. Navigate to the report folder, and click on the **Export** link next to the name of the report, as shown in the following screenshot:



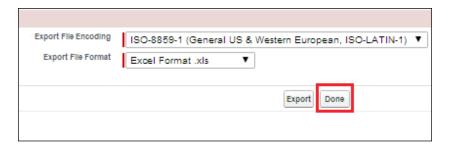
3. It will redirect you to a screen where you have to select **Export File Encoding**. In our case, we will leave it as default. Using **Export File Format**, you can select Excel or CSV. In our case, we will select **Excel Format.xls** as shown in the following screenshot:



4. Click on **Export**. The file will be downloaded on your system:



5. Click on **Done** as shown:



When exporting reports in the CSV format, the locale settings on your user detail page determine the field separator (delimiter) included in the exported file. For example, if your locale setting is English (United States), the decimal separator is a period ("."). If your locale setting is French (France), the decimal separator is a comma (","). You can override the default separator for your locale by choosing the **Comma Delimited (non-locale)** .csv option from the **Export File Format** drop-down list.



You can export up to 256 columns and 65,536 rows of data in one report. You can also get the export report option when you run a report.

Exporting reports in the background

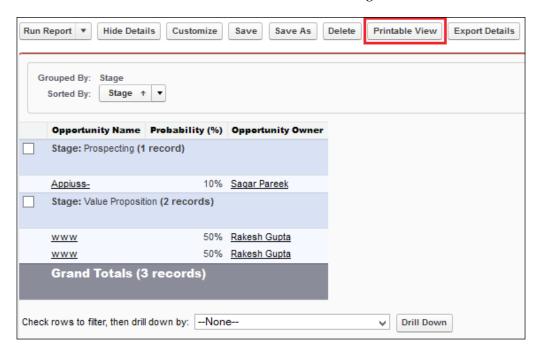
When you are exporting large amount of data such as 40,000 records, it will take time and sometimes may time out such that your export will fail. You can use export reports in the background so that you can continue working in Salesforce without waiting for the report results to display. Contact Salesforce.com to activate this feature for your organization.

Exporting reports in a printable view

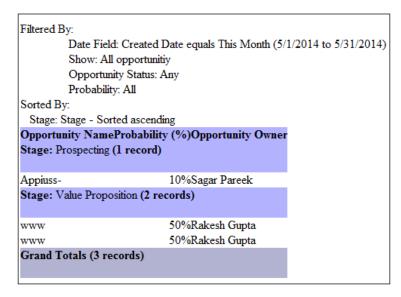
The printable view of a report retains the format and summary information of a report. This includes the **Custom Summary Formula** fields. The **Export Details to Excel** option will produce only the detail rows. With only the detail rows available, the exported file is raw data that can be easily modified. To export a report in a printable format, follow these steps:

- 1. Click on the **Reports** tab.
- 2. Navigate to the report folder and click on the **Report Name** link to open the report.

3. Click on **Printable View**, as shown in the following screenshot:



4. Save the file and open it in any browser, and you will see what is shown in the following screenshot:



The printable view displays a maximum of 20,000 rows. To view all the rows, use the printable view for tabular and summary reports, or you can export these in Excel. For joined reports, export is not available, and the printable view displays a maximum of 20,000 rows.

Sharing reports and dashboards

Sometimes, it is necessary to share reports with your team members. Let's take an example where the system administrator created one report and wants to share it with the sales director. You can share reports with your colleagues using the following methods:

- Folder sharing
- Schedule reports
- Schedule dashboards

Folder sharing

If you want to share reports with Salesforce users, then you can use the folder share method. Reports are shared by sharing the folder of the reports in which they are located. Sharing can be done among following:

- Public groups
- Roles
- Role and internal subordinates
- Users
- Roles, internal, and portal subordinates

Whenever you create any report folder, Salesforce automatically makes you the manager of this folder and other users with administrative permissions can see it. You can decide which public groups, roles, and roles and its subordinates can access this reports folder.

Enabling enhanced sharing for reports and dashboards

If you want to share the report folder with users, then you have to enable folder sharing for your organization. To do that, follow these steps:

- 1. Navigate to Setup | Build | Customize | Reports and Dashboards | Folder Sharing.
- 2. Select the **Enable access levels for sharing report and dashboard folders** checkbox as shown in the following screenshot:

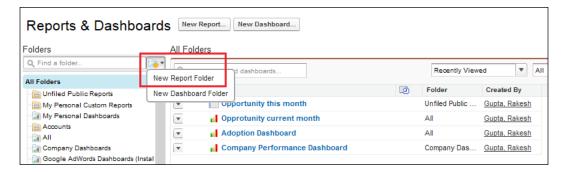


3. Click on Save.

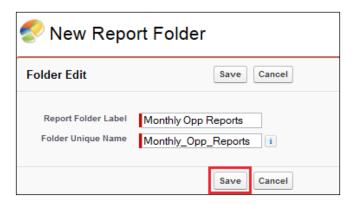
Creating new reports and dashboard folders

To create a new report and dashboard folder, follow these steps. In this example, we will create **New Report Folder**:

- 1. Click on the **Reports** tab.
- 2. Click on the folder icon and then select the **New Report Folder** option, as shown in the following screenshot:



3. Enter data in **Report Folder Label** and **Folder Unique Name**, as shown in the following screenshot:



4. Click on Save.

Likewise, you can create a folder for dashboards.

Sharing reports and a dashboard folder

In this example, we will share a report folder that we created in the previous section with the user Sara Bareilles. To share a report folder with users, follow these steps:

- 1. Click on the **Reports** tab.
- 2. Click on the **Share** option on the folder, as shown in the following screenshot:



3. Select **Users**.

4. Find the user you want. In our case, it's **Sara Bareilles**. Click on the **Share** button, and choose an access level.



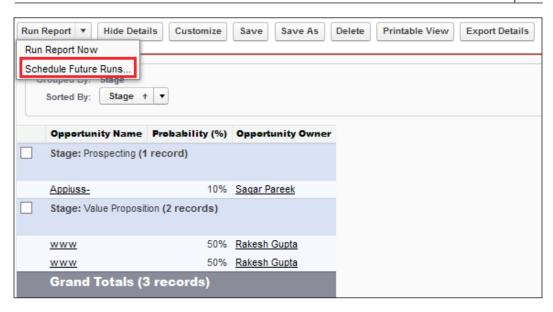
5. Click on **Done**, review your changes, and click on **Close**.

Likewise, you can share the dashboards folder with users.

Scheduling a report

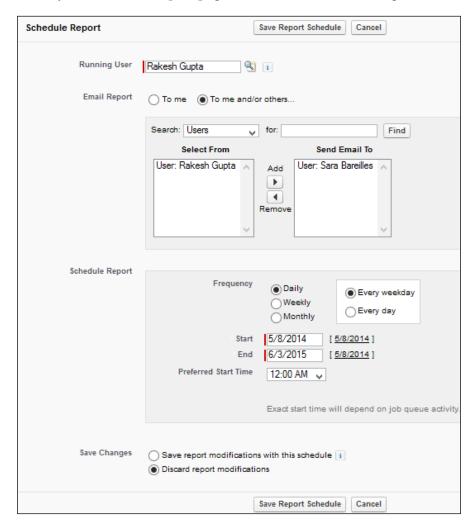
Sometimes people at the higher management don't want to log in to Salesforce to view the report. In that case, you can schedule the report for future run and distribute it among users. In this example, we will use the user Sara Bareilles to send a schedule report. To schedule a report for future run, follow these steps:

- 1. Click on the **Reports** tab.
- 2. Click on the existing report name.
- 3. Click on the **Run Report** dropdown, and select the **Schedule Future Runs** option, as shown in the following screenshot:



- 4. It will redirect you to schedule a report page where you have to enter a few details. Specify the running user who has access to the folder where the report is saved. The access level of the running user determines what other users, including portal users, see when they receive the scheduled report run results. In our case, we will select the admin user (that is, Rakesh Gupta).
- 5. Select the **Email Report** settings. In our case, we will select **To me and/or others** and select **Sara Bareilles**.
- 6. Set the frequency, duration, and time for running the report, as follows:
 - o In the **Frequency** field, you can select **Daily**, **Weekly**, or **Monthly**, and then refine the frequency criteria. In our case, we will select **Daily**.
 - Using the **Start** and **End** date fields, specify the dates during which you want to schedule the report. To enter the current date, click on the link that shows the date. Set it as per your choice.
 - Next, to set Preferred Start Time, click on Find available options to choose a start time. Your preferred start time might not be available if other users have already selected that time to schedule a report. Set Preferred Start Time to 12:00 AM.

7. For the **Save Changes** field, select the **Discard report modifications** option. Finally, our schedule report page will look like the following screenshot:



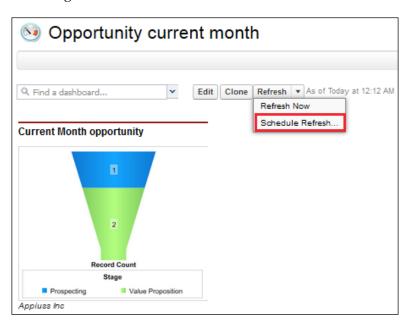
8. Click on the **Save Report Schedule** button.

Scheduling a dashboard

You can also schedule a dashboard refresh to distribute it to users. The future of schedule dashboards is only available in Enterprise, Unlimited, and Performance Editions. To schedule a dashboard with a user, follow these steps:

1. Click on the **Dashboard** tab.

- 2. Select an existing dashboard using the **View Dashboard** field.
- 3. Click on **Refresh** and then select the **Schedule Refresh** option as shown in the following screenshot:



4. Follow the instructions from steps 4 to 8 from the schedule report.

A few noteworthy points on the report and dashboard schedule

The following are some noteworthy points about the report and dashboard schedule:

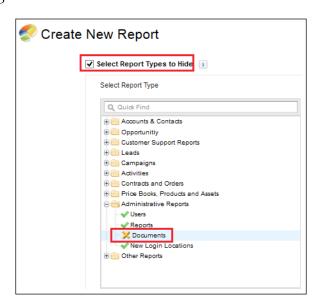
- If the running user becomes inactive, the report is not run. The system administrator will get an e-mail notification to either activate the user or delete the report scheduled, or change the running user to an active one in the scheduled report.
- The limit for scheduled reports per organization is one or two based on editions.
- An organization is limited to 200 scheduled reports and dashboards.
 Daily limits differ by edition. You can purchase additional schedule reports or dashboards.
- A joined report can't be scheduled for future runs.

- Scheduled reports run in the time zone of the user who set up the report schedule. Let's take an example. If the **Time Zone** field on your user record is set to **Indian Standard Time**, and you schedule a report to run every day at 3:00 PM, then the report runs every day between 3:00 PM and 3:29 PM as per Indian Standard Time.
- The maximum size for e-mailed reports is 10 MB.
- For Enterprise Edition, you are only permitted one dashboard refresh per user, per hour, and for Unlimited Edition this limit is two. If you want to increase this slot, you have to purchase additional refresh slots. To do that, contact the Salesforce.com support team.

Hiding unused report types

If you have plenty of unused report types and you want to hide them so that the user can't see these report types while creating a report, follow these steps:

- 1. Click on the **Reports** tab.
- 2. Click on the **New Report** button.
- 3. Select the **Select Report Types to Hide** checkbox and now go to the folder of the reports type.
- 4. Click on the report type to hide. The green check in front of the report type denotes that it is visible. Once you click on it, it will turn into an **X** symbol, which means that it is no longer visible. It will look like the following screenshot:



The next time user creates a new report, these report types you have hidden will no longer be visible to them.

Exporting reports without footers

Whenever you export any report from Salesforce, it always has a few lines of footer with some information, as shown in the following screenshot:



If you do not want such footers in exported reports, you can perform the following steps to stop this footer:

- 1. Navigate to Setup | Build | Customize | Reports and Dashboards.
- 2. Go to the user interface section and select the **Export Reports without Footers** checkbox, as shown in the following screenshot:



3. Click on Save.

Floating headers in summary and matrix reports

When you are viewing a summary or matrix report in Salesforce and there is a lot of data, a situation comes when the headers of the table are about to disappear. Salesforce provides floating table headers in matrix and summary reports. It doesn't matter how much you scroll down, the header will remain with the data.

Enabling floating report headers

To enable this feature for your organization, follow these steps:

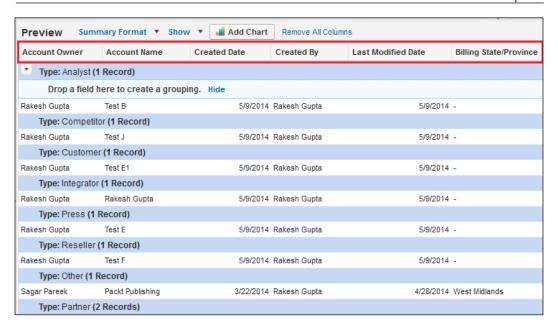
- 1. Navigate to Setup | Build | Customize | Reports and Dashboards.
- 2. Go to the user interface section and select the **Enable Floating Report Headers** checkbox, as shown in the following screenshot:



3. Click on **Save**.

Using the floating header in reports

Normally, when the data fits onto your screen, the headers are at their normal position, as shown in the following screenshot:



However, when you scroll down, the headers will float with the data just under the address bar of your browser so that you may not miss or misread any information. If you wish to hide these floating headers, you can click on the [] icon, which is located just below the floating headers bar.

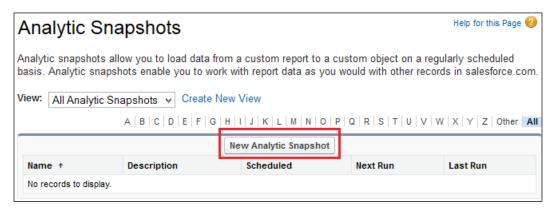
Analytical snapshot

Analytical snapshot in Salesforce helps you to build trend reports, which are based on historical data. You can use tabular or summary reports as the source report in an analytical snapshot. The column from the report is mapped to the fields in an object.

Let's take an example, where the CEO of Appiuss Inc. has asked the system administrator to build a monthly, historical trend report based on the **Opportunity this month** report he created for tabular reports to compare the opportunity statuses of the current month and last month. To do this, follow these steps:

- 1. Build a summary or tabular report. We have already built a report under the summary report topic.
- Consider the fields you need to track to build a trend report (in our case, we will track **Opportunity Name**, **Stage**, and **Probability**%).
- 3. Create a custom object named **Opportunity track**.

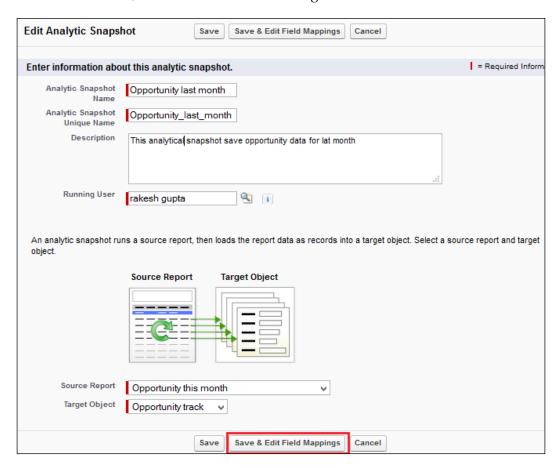
- 4. Create three fields in the **Opportunity track** custom object with the **Account Opportunity Name**, **Stage**, and **Probability**% names and text as the data type.
- 5. Navigate to Setup | Administer | Data Management | Analytic Snapshots.
- 6. Click on the **New Analytic Snapshot** button, as shown in the following screenshot:



- 7. It will redirect you to the **New Analytic Snapshot** page where you have to enter a few details as follows:
 - Analytic Snapshot Name: Enter a meaningful name for the analytic snapshot.
 - Analytic Snapshot Unique Name: Enter a unique name.
 - Description: Enter a full description about an analytical snapshot so that other users can easily understand why this snapshot is created.
 - Running User: Choose a user in the Running User field by clicking on the lookup icon. The user in the Running User field determines the source report's level of access to data. This bypasses all security settings, giving all users who can view the results of the source report in the target object, access to data they might not be able to see otherwise.
 - Source Report: Select a source report from the drop-down menu.
 In our case, we will select the Opportunity this month report.

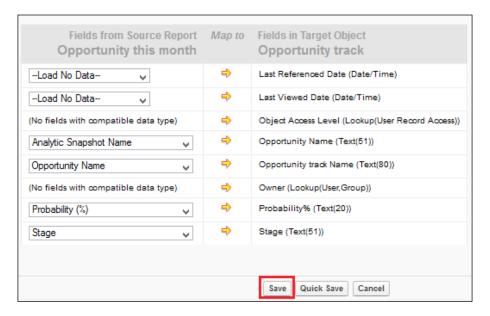
 Target Object: Select a custom object from the Target Object drop-down list. In our case, we will select the custom object Opportunity track.

In our case, it will look like the following screenshot:



8. Click on the **Save & Edit Field Mappings** button, as shown in the preceding screenshot.

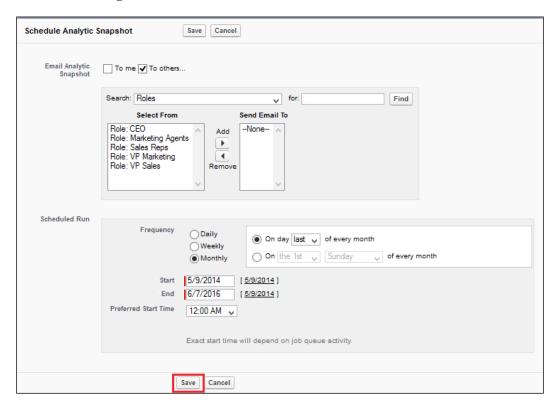
9. On the next screen, provide the mapping of the fields between the report header and the custom object fields. You can map the fields according to the following screenshot:



- 10. Click on Save.
- 11. On the next screen, navigate to the **Schedule Analytic Snapshot** list, and click on **Edit**. This will allow you to schedule the run of the snapshot so that historical data can be captured as records in the custom object you created earlier.
- 12. Select the **Email Analytical Snapshot** settings. In our case, we will select **To me and/or others** and then select the system administrator user **Role: VP Sales**.
- 13. Set the frequency, duration, and time for running the report, as follows:
 - o In the **Frequency** field, you can select **Daily**, **Weekly**, or **Monthly**, and then refine the frequency criteria. In our case, we will select **Monthly** and the last day of every month.
 - Using the **Start** and **End** date fields, specify the dates during which you want to schedule the report. To enter the current date, click on the link that shows the date. Set it as per your choice.

Next, to set Preferred Start Time, click on Find available options to choose a start time. Your preferred start time might not be available if other users have already selected that time to schedule a report. Set Preferred Start Time to 12:00 AM.

Our **Schedule Analytic Snapshot** screen will look like the following screenshot:



14. Click on Save.

Now, on the last day of every month at 12 a.m., the analytical snapshot will start capturing the data from the source report and records will created in your target object. Upon the completion of this process, an e-mail will be sent to you with details of records that were captured in the analytical snapshot.

A few noteworthy points about analytical snapshots

The following are some noteworthy points about analytical snapshots:

- The maximum number of rows you can insert into a custom object is 2,000
- The maximum number of runs you can store is 200
- The maximum number of source report columns you can map to target fields is 100
- You can only schedule one analytic snapshot to start on any given day on Professional Edition
- An analytic snapshot will fail during a scheduled run if the source report includes more than 100 fields
- An analytic snapshot will fail during a scheduled run if the target object is included in a workflow

Summary

In this chapter, we went through report types and ways to create custom report types. At the beginning of the chapter, we discussed reports and types of reports that exist in Salesforce. Then, we moved ahead and discussed dashboards and their components followed by various concepts related to export reports. We also went through the various methods of sharing reports and dashboards with users. Then, we covered unused report types and exporting report without footers. We also discussed floating header in reports. Finally, we discussed mass analytical snapshots.

In the next chapter, we will discuss various concepts related to Salesforce and how you can be more collaborative in your workplace when you use it.

9 Chatter Configuration

In the previous chapter, we discussed the various report types and ways to create custom report types. We also explored reports and types of reports that exist in Salesforce along with dashboards and their components, followed by various concepts related to export reports, share reports, and dashboards. In this chapter, we will discuss various concepts related to Salesforce Chatter. We will also talk about various new features related to Chatter. The following topics will be covered in this chapter:

- A basic overview of Salesforce Chatter
- Enabling Chatter invites
- Topics for objects
- Branding e-mail notifications
- Chatter group
- The Chatter announcement feature
- Posting e-mail to Chatter groups
- Chatter e-mail settings
- Enabling feed tracking
- Posting a dashboard snapshot to Chatter
- Various features of Chatter

Basic overview of Salesforce Chatter

Chatter is a collaborative product by Salesforce. It helps you to collaborate with users within an organization. Chatter allows users to be updated with the information that is important to them. Users get status updates from other user's profiles and real-time feed updates. Salesforce Chatter is just like Twitter or Facebook where you can share the progress of your work with your colleagues, get updates from the data that matters to you, or create groups to share some information with a specific set of users or groups.

Enabling Salesforce Chatter

Salesforce Chatter is available in the group, Professional, Enterprise, Performance, Unlimited, contact manager, developer, and Database.com editions (Chatter e-mail notifications, Chatter invitations, and customer invitations are not available in this edition). To enable Salesforce Chatter in your organization, follow these steps:

- 1. Navigate to Setup | Customize | Chatter | Settings.
- 2. Click on the **Edit** button.
- 3. Select the **Enable** checkbox as shown in the following screenshot:



Click on Save.

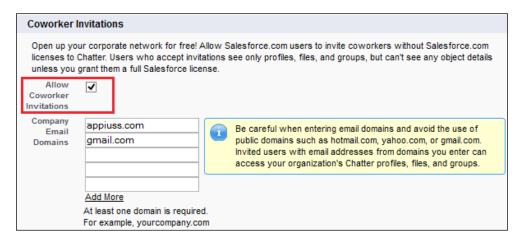


Chatter has been pre-enabled for all organizations since June 2010.

Enabling Chatter invites

By using Chatter invites, users in your organization can invite their clients to private groups of which they are either the manager or owner. To enable Chatter invites, follow these steps:

- 1. Navigate to Name | Setup | Customize | Chatter | Chatter Settings.
- 2. Click on the **Edit** button.
- 3. Navigate to the Coworker Invitations section and select the checkbox, Allow Coworker Invitations. You can also add Company Email Domains so they can only send invitation to the user whose e-mail ends with these domains, as shown in the following screenshot:



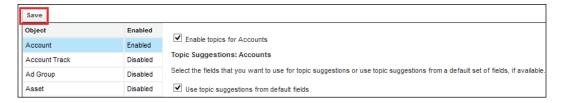
Click on Save.

Topics for objects

Having topics for objects will help us organize the records to make the search easier in Salesforce. It will also help an organization to have better search management. In addition to this, Salesforce allows you to create custom report types on various topics for objects. For example, here we will enable topics for an **Account** object. To enable topics for this object, follow these steps:

1. Navigate to Setup | Customize | Topics | Topics for Objects.

2. Hover your mouse on the Account object and select the Enable topics for Accounts checkbox. There are two ways to get a suggestion for a topic. One way is by using suggestions from the default fields, that is, by selecting the Use topic suggestions from default fields checkbox. The other way is by selecting fields, that is, by unchecking the Use topic suggestions from default fields checkbox and selecting a field from a list:

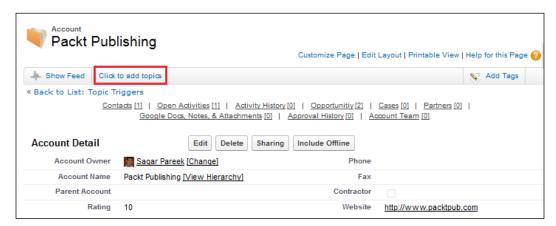


3. Click on Save.

Creating topics

For example, now we want to create a topic for the accounts. For better management of account records, we will use the topic, **High Priority**. To do this, follow these steps:

- 1. Click on the account record that you want to assign as a high-priority topic.
- 2. On the records detail page, click on the **Click to add topics** link, as shown in the following screenshot:

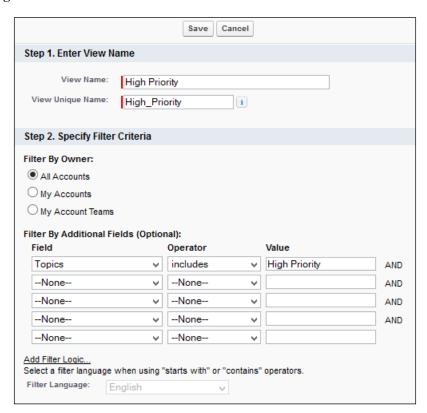


3. Type the name High Priority:



4. Click on Done.

In order to make use of the created topic, we can make a separate list view where we can filter only these records where the topic is set as **High Priority**, as shown in the following screenshot:



The list view created will now show the records as per the topic filter.



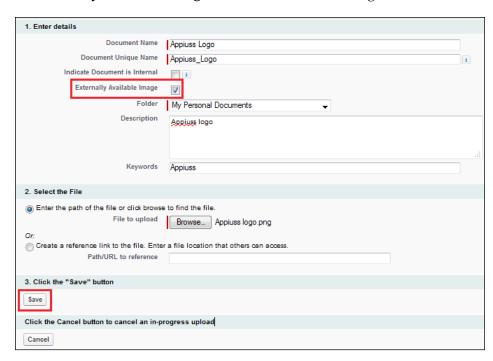
In one record, you can have a maximum of 100 topics.

Branding e-mail notifications

Chatter sends you an e-mail when someone follows you and posts on your profile or groups. You can also receive daily or weekly digests with posts and comments from your personal feed and groups. In all these types of e-mails, you can see Salesforce's logo and address.

You can change the sender's name and e-mail address, footer address, and logo. To personalize this e-mail according to your needs, follow these steps:

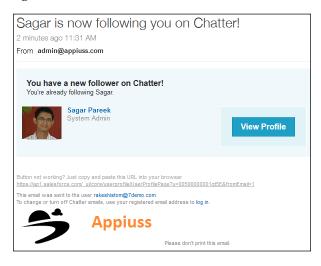
- 1. First, we will upload our company's logo on the **Document** tab. To do this, click on the **Documents** tab.
- 2. Select **Shared Documents** as the folder and click on the **New Document** button.
- 3. Name the file Appiuss logo and select an image from your workstation that must not be more than 150 x 150 pixels in size. Make sure it is marked as **Externally Available Image**, as shown in the following screenshot:



- 4. Click on Save.
- 5. Now we will configure the e-mail setting to brand notifications. To do this, navigate to **Setup | Customize | Chatter | Email Settings**.
- 6. Under the **Sender** section for **From Name**, enter Appiuss and the e-mail address as Admin@appiuss.com. Select the logo that you just uploaded in documents, and in the footer text, enter Please don't print this email that must show on the e-mail under the **Branding** section. It will look like the following screenshot:



- 7. Click on Save.
- 8. Salesforce will send an e-mail alert to the e-mail address mentioned in the **Email address** field with a link to verify the ownership of the e-mail address. Click on the link to verify the e-mail address.
- 9. In future, you will receive the Chatter e-mail notification that will look like the following screenshot:



Chatter groups

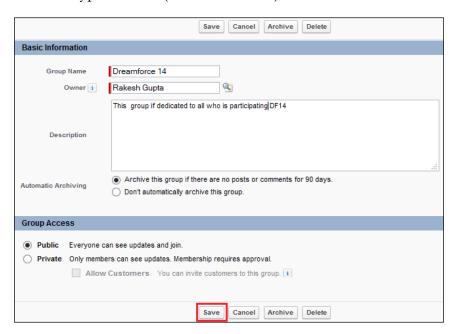
Chatter groups are places where you can collaborate with your project team members or customers. There are two types of Chatter groups:

- **Public**: Anyone can join this type of group, post, add files, or see comments and add posts.
- **Private**: To join a private group, you need permission from the group owner or managers. Only members can see posts, add comments, and add files.

Creating Chatter groups

To create a new Chatter group, follow these steps:

- 1. Go to the **Chatter** tab and click on **Group** or directly go to the **Group** tab.
- 2. Click on the **New Group** button.
- 3. Enter **Group Name** and **Description** (the group name must be unique).
- 4. You can also select the **Automatic Archiving** option for your group. There are two options:
 - Archive this group if there are no posts or comments for 90 days
 - Don't automatically archive this group
- 5. Select the type of access (**Public** or **Private**).



6. Click on the **Save** button.



A user can have a maximum of 10,000 Chatter groups.

Joining a group

To join a Chatter group, navigate to the **Groups** tab and click on the **All Groups** link under the left-hand side bar. If you are not a member of a specific public group, then you will be able to see the occasion. You can directly join a public group; however, for a private group, you will first need to join, and Salesforce will send an e-mail alert to group owners or managers. They can approve or reject your membership request based on their rules.



A user can join a maximum of 100 groups, but a group can have unlimited members.

Archiving a Chatter group

Groups in Salesforce that don't have any new feed post or comment for more than 90 days in a row are archived automatically. To enable or disable this feature for your organization, follow these steps:

- 1. Navigate to Setup | Customize | Chatter | Settings | Edit.
- 2. Go to the **Groups** section. To disable archiving, deselect the **Allow Group Archiving** checkbox. To allow the archiving option, select this checkbox as shown in the following screenshot:



3. Click on Save.

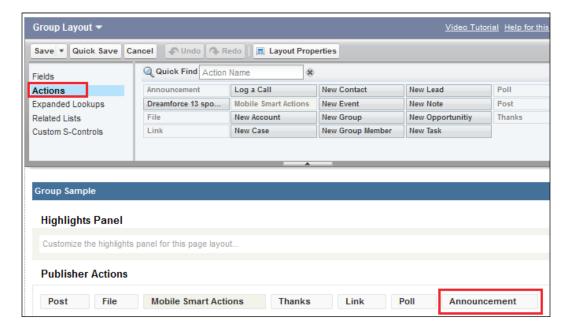


Archived groups count toward your organization's group limits (that is 10,000), but not toward a user's group membership limits (that is 100).

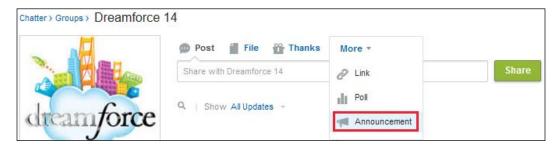
The Chatter announcement feature

By using the Chatter announcement feature, you can share your words within groups with mass audiences of your organization. It will show as sticky notes on the left-hand side of your Chatter group. To enable Chatter announcement for your organization, follow these steps:

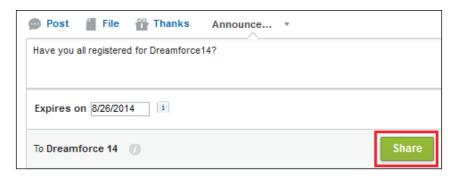
- 1. Navigate to Setup | Customize | Chatter | Chatter Groups | Groups Layout and click on the Edit link.
- 2. From the upper-floating palette on the right-hand side pane, select **Actions** and drag-and-drop the **Announcement** action to the group layout under the **Publisher Action** section, as shown in the following screenshot:



- Click on Save, and now to go to the Groups tab.
- 4. Select the group in which you want to make any announcement. For example, we want to make an announcement in the **Dreamforce 14** group.
- 5. Now, click on the publisher action, **Announcement**. If it is hidden, click on the **More** option, as shown in the following screenshot:



6. Now in the text bar, enter your announcement and enter its expiry date in the **Expires on** field. Once you're done, click on the **Share** button. It will look like the following screenshot:



7. The announcement will appear on the Chatter group on the left-hand side panel, as shown in the following screenshot:



8. Group announcements are displayed until 11:59 p.m. on the selected expiration date, unless they're replaced by a new group announcement.

Posting e-mail to Chatter groups

You can allow group users to send e-mails to Salesforce, and this message can be posted to a particular group. In order to do this, you first need to enable **Post by Email** in the Chatter settings menu. To enable the **Post by Email** feature, follow these steps:

- 1. Navigate to Setup | Customize | Chatter | Email Settings.
- 2. Under **General Settings**, select the **Post by email** checkbox and also **Allow Posts via Email** to allow the user to reply from their local e-mail client whenever they get any notification related to a group activity, as shown in the following screenshot:



- 3. Click on Save.
- 4. Now, navigate to **Chatter | Groups | Dreamforce 14**.
- 5. From the group detail page of your group under the e-mail section,
- 6. click on **Post by email**, as shown in the following screenshot:



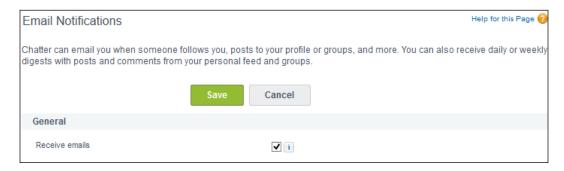
7. Now, this will open up your default e-mail client. You can save the unique e-mail address to post to Chatter without logging in to Salesforce.

Chatter e-mail settings

By enabling the receiving e-mail feature, Salesforce will deliver an e-mail to your inbox every time someone follows you or posts on your profile or groups. You can also receive daily or weekly user and group e-mail digests. Personal digests include updates that you see in your own Chatter feed, such as updates about people, posts linked to your profile, a personal mention in a post or comment, a comment or item that you liked, records, files you followed, and information about your groups. Group digests include the updates you see in a particular group's Chatter feed and are configurable on a group-by-group basis. To configure the Chatter e-mail setting, follow these steps:

1. Navigate to Name | My Settings | Chatter | Email Notifications.

2. Go to the **General** section and select the **Receive emails** checkbox to receive e-mail notifications:



- 3. Select the type of Chatter e-mail you want to receive as per your choice.
- Click on Save.

Enabling feed tracking

Enabling feed tracking provides real-time field updates from objects. If some change has taken place, it will be reflected on your Chatter feed, especially if you are following that record. Only the system administrator can enable feed tracking for standard and custom objects of an organization. To enable the feed-track option, follow the path Name | Setup | Customize | Chatter | Feed Tracking. We will enable feed tracking for the Contact object by selecting the Enable Feed Tacking checkbox, as shown in the following screenshot:



You can also display the activity of a feed for related objects. To do this, select the **All Related Objects** option at the bottom of the page:





Once feed tracking is enabled, you can select a maximum of 20 fields to track. Feed updates that are older than 45 days and have no likes or comments are removed from the feed automatically.

Posting a dashboard snapshot to Chatter

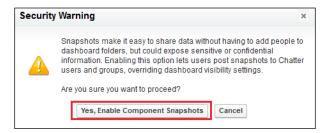
In the previous chapter, we discussed a few ways of sharing dashboards with users. Here, we will discuss another way to share dashboards with users. Let's take an example where you want to share a dashboard with Chatter Free Users or a Chatter group. In this case, you can't grant folder access or use a scheduled dashboard for a future run with Chatter Free Users. However, using a dashboard snapshot of the Chatter feature, you can share a static snapshot of the dashboard with Chatter Free Users. To post a dashboard snapshot to Chatter, follow these steps:

- First of all, we have to enable the Chatter feed-tracking option for a dashboard. To do this, navigate to Name | Setup | App Setup | Customize | Chatter | Feed Tracking.
- Click on the Dashboard object, select the Enable Feed Tracking checkbox to enable it, and select all the four fields, as shown in the following screenshot:

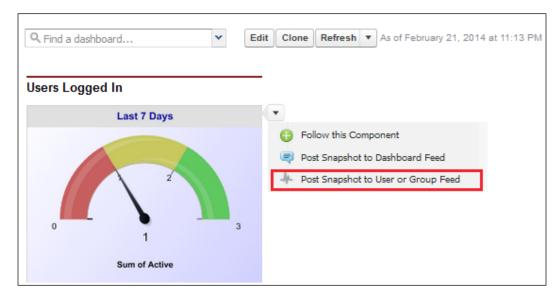


- Click on Save.
- 4. Now, we have to enable **Dashboard Component Snapshots**. To do this, navigate to **Name** | **Setup** | **App Setup** | **Customize** | **Reports & Dashboards** | **User Interface**.

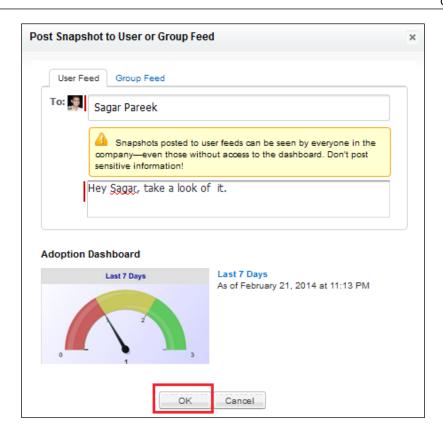
5. Select the **Enable Dashboard Component Snapshots** checkbox; a security warning will pop up. Click on **Yes, Enable Component Snapshots** as shown in the following screenshot:



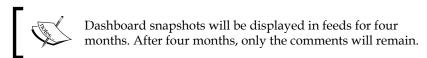
- 6. Click on Save.
- 7. Now, navigate to the **Dashboard** tab and select the dashboard that you want to share. Hover over a component to display the [] icon. To clear the hover menu, click on an empty part of the screen. Click on **Post Snapshot to User or Group Feed** as shown in the following screenshot:



8. A window will pop up where you can add a user or Chatter group, and you can also write a comment in the comment box, as shown in the following screenshot:



9. Click on the **OK** button; it will post the dashboard's snapshot to Chatter.

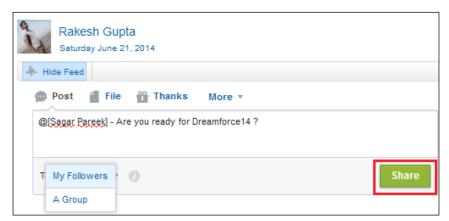


Various features of Chatter

Salesforce Chatter allows you to let people have an insight of you. Additionally, you can share links or files, you can start new polls, and people can vote.

Status update

Salesforce Chatter allows you to share with others what you are doing or what you are thinking about. As soon as you post a status, it will be shared with your followers and colleagues. You will also be able to tag people or Chatter groups in your post. To tag people or groups, just use the @mention function, and Salesforce will give you all the reverent users or groups with the exact or similar name in your organization. In the following example, **Rakesh Gupta** is using @Sagar. Once you are done with typing, click on the **Share** button, as shown in the following screenshot:

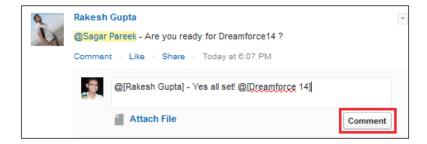




You can share posts with your followers or within a group.

Posting a comment

In the preceding example, your followers are allowed to post a comment, like your post, and share or bookmark it. If you want to tag people or Chatter groups in your comment, use <code>@mention</code>. In the following example, the user Sagar Pareek has tagged the user Rakesh Gupta and the Chatter group Dreamforce 14:



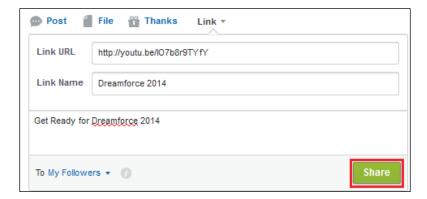
Optionally, you can attach a file while commenting on a post.



You can have a maximum of 5,000 characters in a single post or comment, and you can include a maximum of 25 mentions in a single post or comment.

Adding a link

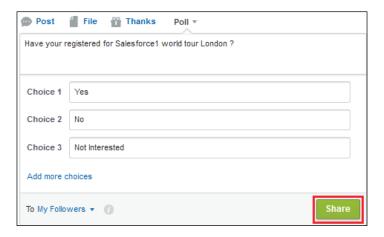
Now, you can share (link) content that you found useful with your followers. It shows your followers that you are someone worth following because of the useful information you would share:



If you want to share a link, click on **Link** and enter **Link URL**, **Link Name**, add a short description, and click on the **Share** button, as shown in the preceding screenshot.

Chatter poll

A user's response will always play a key role in making a good decision. Chatter poll is a quick and easier way to ask for feedback from a user on certain topics, such as the most needed topics to conduct sales training via a poll instead of e-mailing everybody and then summarizing it. You can create a poll in your feed as follows:



If you want to create a poll, click on **Poll** and enter the poll question, choices, and click on the **Share** button, as shown in the preceding screenshot.



You can have a maximum of 10 choices in a poll. You can also share a poll with your followers or groups that you are a member of or you own.

The Chatter publisher action

The publisher action allows you to create actions and add them to the Chatter publisher on the home page. Now, you can turn a simple action into a global action with the help of Salesforce Chatter. This means that you can create a record or log a call on the fly. To do this, first of all, you have to enable the Salesforce publisher action.

Enabling a publisher action

Only the system administrator or users with customized application permission can enable this feature for an organization. To do this, follow these steps:

- 1. Navigate to Name | Setup | Customize | Chatter | Settings.
- 2. Click on Edit.

- 3. Select the **Enable Publisher Actions** checkbox.
- Click on Save.

A publisher action only works with objects for which feed tracking is enabled. Publisher actions/global actions are of two types:

- Object-specific actions (that is, create a record)
- Global actions

Creating object-specific actions

Object-specific actions let users create records that are automatically associated with a related record. Here, we will create an **Event Registration** action on the **Event** object. To do this, follow these steps:

- 1. Navigate to Name | Setup | App Setup | Customize | Event | Buttons, Links, and Actions.
- 2. Click on the **New Action** button.
- 3. Select **Action Type** (create a record or custom action).
- 4. For **Create a record**, select the type of object to create if there is more than one record type for that object; then, select the record type for this action. In our case, we'll select **Event Registration**.
- 5. Type in a label for the action. Users will see this text for the action in the **Publisher** menu.
- 6. Enter the name; this name will be used in an API call or managed packages.
- 7. Type in a description for the action.
- 8. Optionally, you can change the icon.



9. Click on Save.

Now you can create an event registration record from the event record details' page.



If you delete an action, it is automatically removed from all the layouts it's assigned to.

Creating global actions

A user can perform this action in any object, but there's no automatic relationship between the record that's created and any other record. You can add a global action to any object. To create a global action, follow these steps:

- 1. Navigate to Name | Setup | App Setup | Customize | Create | Global Actions.
- 2. Click on the **New Action** button.
- 3. Select **Action Type** (create a record or custom action).
- 4. For **Create a record**, select the type of object to create if there is more than one record type for that object; then, select the record type for this action.
- 5. For the **Custom** action, select the **Visualforce** page and specify the height of the action window.
- 6. Type in a label for the action. Users will see this text for the action in the **Publisher** menu.
- 7. Enter the name. This name will be used in an API call or managed packages.
- 8. Type in a description for the action.
- 9. Optionally, you can change the icon.
- 10. Click on Save.

Adding a global action to the page layout

To add an action to the page layout, follow these steps:

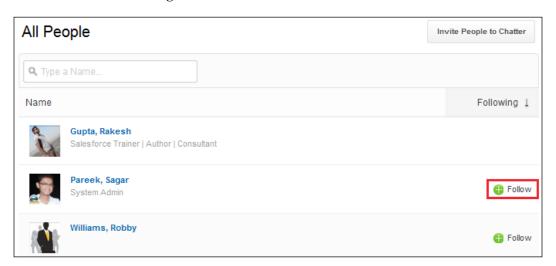
- 1. Navigate to Name | Setup | App Setup | Customize | Object | Page Layouts.
- 2. Select **Action** from the left-hand side of the screen.

- 3. Drag-and-drop the action to the page layout.
- 4. Click on Save.

Follow/unfollow users and records

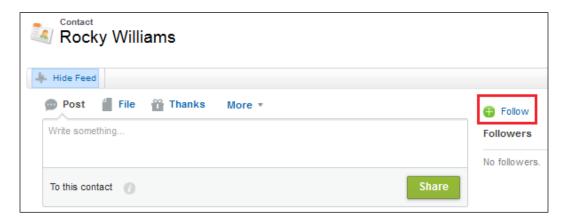
Chatter allows you to follow users and records. So any update that happens with records or the people that you are following will directly appear on your Chatter feed.

Follow/unfollow users



Once you follow a user, you can see the [\checkmark Following \odot] icon. If you see this icon on the profile page of any user, it means you are following that user. To unfollow a user, click on the $[\times]$ icon.

Follow/unfollow records



Once you follow a record, you will see the [\checkmark Following \odot] icon. If you see this icon on the details page of any record, it means you are following those records. To unfollow a record, click on the [\times] icon.



You can follow a maximum of 500 people, topics, and records. To raise these limits, raise a case with Salesforce.com support.

Managing files

A user can use the **Files** tab to upload, search, follow, share, and view files on cloud. Any file that you own or that has been shared with you is available to share on Chatter feeds. You can upload a file (maximum size of 2 GB) from your workstation. When you follow any file, upload a file, someone shares a file with you, or you or someone else uploads a file with CRM content library, it will automatically be added to the files list. You can share a file with users and groups with viewer and collaborator permission:

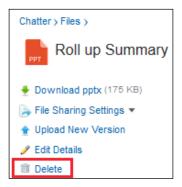
- Viewer: A viewer can view, download, and share a file
- Collaborator: A collaborator can view, download, share, edit, change permissions, and upload a newer version of the file

Uploading a file

To upload a file, navigate to the **Files** tab and click on the [Upload Files] icon. Select a file from your workstation and click on the **Open** button.

Deleting a file

To delete a file, navigate to the **Files** tab, search for the file that you want to delete, and go to the details page by clicking on the name of file. On the details page, click on the **Delete** link, as shown in the following screenshot:



Following a file

When you follow a file, you can see updates in your Chatter feed and Chatter page, including when a new version of the file is uploaded. To follow a file, navigate to the **Files** tab and enter the filename in the search box. Once you get the appropriate file, click on the filename to move to the detail page and then click on the [\bigoplus Follow] icon. Once you start following any file, you will notice the [\checkmark Following \bigcirc] icon on the detail page. To unfollow a file, click on the [\times] icon.

Summary

In this chapter, we went through various aspects of Salesforce Chatter. At the beginning of the chapter, we provided you with an overview of Chatter and ways to enable it for your organization. Then, we went ahead and discussed topics for Chatter and branding Chatter e-mail notification. We also went through Chatter group concepts and ways to post a dashboard snapshot to Chatter. Finally, we looked at various Chatter features such as posting a status, creating a poll, and following and unfollowing records or users with file management concepts.

In the next chapter, we will discuss mobile administration, how to install Salesforce1 and SalesforceA, and their respective configurations.

10Mobile Administration

In the previous chapter, we discussed the various features of Salesforce Chatter and how to enable Salesforce Chatter for your organization and Chatter group management. We also discussed ways to brand a Chatter e-mail notification with Chatter announcement. In this chapter, we will discuss the various Salesforce mobile applications and ways to configure these apps for your internal users. The following topics will be covered in this chapter:

- Overview of SalesforceA
- Overview of Salesforce#
- Overview of Salesforce1

Overview of SalesforceA

SalesforceA is a mobile-based application for administrators. It allows Salesforce administrators to do their work on the fly, while working away from the office or remotely. This application allows the Salesforce administrator to reset user password, freeze user accounts, deactivate user accounts, and so on.

Features of the SalesforceA mobile application

The SalesforceA mobile application comes with various features. The following is a list of actions that the Salesforce administrator can perform through the SalesforceA mobile app:

- Freeze a user's account
- Unlock or deactivate a user's account
- Edit a user's details
- Reset password
- Assign and unassign permission sets

Installing the SalesforceA mobile application

You can download the SalesforceA mobile application from iTunes and Google Play. It is supported by the following devices:

- Android phone or tablet with OS v4.2 or higher
- Apple iPhone and iPod Touch with iOS v5.0 or higher

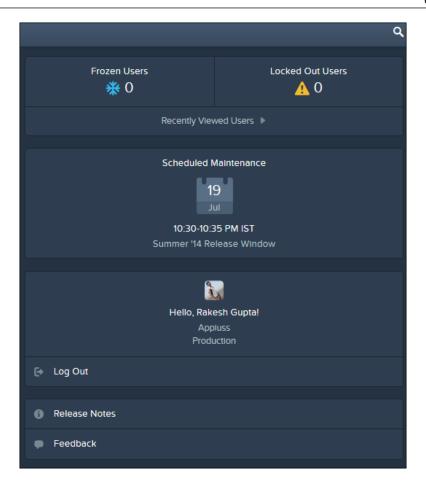
It can be downloaded for different platforms from the following links:

- iTunes: https://itunes.apple.com/in/app/salesforcea/id731117958?mt=8
- Play Store: https://play.google.com/store/apps/details?id=com.salesforce.admin1&hl=en

Logging in to the SalesforceA mobile application

The following are the steps to use to log in to the SalesforceA mobile application:

- 1. Click on the SalesforceA mobile app icon on your mobile/iPad.
- 2. Enter your login credentials and activation code.
- 3. Then, allow the SalesforceA application to access your Salesforce basic information.
- 4. The first time you log in, it will ask you to set the passcode; from the next time onwards, you will have to enter this passcode to access the SalesforceA application.
- 5. This will redirect you to the application's home page. It will look like the following screenshot:



- 6. Now start administrating your Salesforce organization from anywhere.
- 7. Use the search bar to find users from your organization, and then go to the user detail page and perform an action as per your needs.



You can also use the Salesforce1 app on your browser. Just append one/admin.app to your Salesforce URL (https://instance name. Salesforce.com/one/admin.app).

Overview of Salesforce#

Salesforce# allows you to generate time-based tokens. It provides additional security for the Salesforce administrator to log in with the two-factor authentication. In *Chapter 3, Make Your Salesforce Data Secure – Security Settings in Salesforce*, we discussed two-factor authentication in Salesforce. There, we used Google apps to generate a time-based token, but now you can also use the Salesforce# application to generate a time-based token.

Installing the Salesforce# mobile application

You can download the Salesforce# mobile application from iTunes and Google Play. It is supported by the following devices:

- Android phone or tablet with OS v4.0 or higher
- Apple iPhone and iPod Touch with iOS v7.0 or higher

It can be downloaded for different platforms from the following links:

- iTunes: https://itunes.apple.com/us/app/salesforce/id782057975?ls=1&mt=8
- Play Store: https://play.google.com/store/apps/details?id=com.salesforce.authenticator

Overview of Salesforce1

Salesforce1 is a mobile-based application used to create, update, and delete records from anywhere. You can also view reports and dashboards using it. This is the updated version of the legacy application Salesforce Chatter. Users can also use Salesforce Chatter through this application.

Features of the Salesforce1 mobile application

The Salesforce1 mobile application comes with various features. The following are a few actions that a user can perform through the Salesforce1 mobile app:

- Create, update, and delete records
- Access publisher actions
- Submit records for approval
- Access the custom list view
- Access Salesforce Chatter

- Access all your custom objects and apps through the navigation menu
- Users can also access Visualforce pages and components in the navigation menu and in records
- Access Salesforce files from the Salesforce1 app
- Access events from the navigation menu

Installing the Salesforce1 mobile application

You can download the Salesforce1 mobile application from iTunes and Google Play. It is supported by the following devices:

- Android phone or tablet with OS v4.2 or higher
- Apple iPhone and iPod Touch with iOS v6.0 or higher

It can be downloaded for different platforms from the following links:

- iTunes: https://itunes.apple.com/in/app/salesforce1/id404249815?mt=8
- Play Store: https://play.google.com/store/apps/details?id=com.salesforce.chatter&hl=en

Configuring the Salesforce1mobile application

Perform the following steps to grant access to the Salesforce A mobile application:

- 1. Navigate to Setup | Administer | Manage Users | Users.
- 2. Edit user records and select the **Salesforce1 User** checkbox, as shown in the following screenshot:

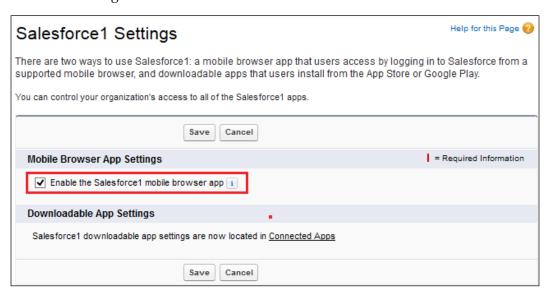


3. Click on Save.

Mobile Browser App Settings

Mobile Browser App Settings allows users to access the Salesforce1 application through a supported mobile browser. To do this, follow these steps:

- 1. Navigate to Setup | Administer | Mobile Administration | Salesforce1 | Settings.
- 2. Go to the **Mobile Browser App Settings** section and select the **Enable the Salesforce1 mobile browser app** checkbox, as shown in the following screenshot:



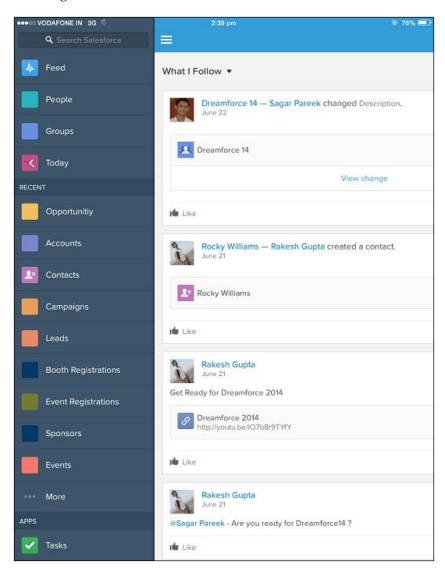
- 3. Click on **Save**.
- 4. Now, a user can access Salesforce1 through a supported mobile browser by appending one/one.app to the URL (https://instance_name. Salesforce.com/one/one.app).

Logging in to the Salesforce1 mobile application

The following are the steps to use to log in to the Salesforce1 mobile application:

- 1. Click on the Salesforce1 mobile app icon on your mobile/iPad.
- 2. Enter your login credentials and activation code.
- 3. Then, allow the Salesforce1 application to access your basic Salesforce information.

4. It will redirect you to the application home page. It will look like the following screenshot:

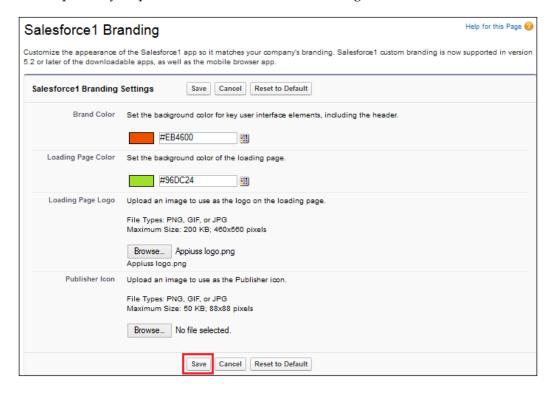


5. Now start creating, updating, and deleting records or collaborating with your user.

Branding the Salesforce1 application

Now you can brand the Salesforce1 mobile application that matches your company's branding. You can change the Salesforce1 app's loading page, background color, loading page logo, header background color, and image used for the publisher icon. To do this, follow these steps:

- 1. Navigate to Setup | Administer | Mobile Administration | Salesforce1 | Branding.
- 2. Go to the **Salesforce1 Branding Settings** section.
- 3. To customize **Brand Color** for key user interface elements, including the header, click on **Select a color**.
- 4. To customize **Background Color** of the loading page, click on **Select a color**.
- 5. To customize **Loading Page Logo**, select an image of type .jpg, .gif, or .png files up to 200 KB in size. The maximum image size is 460 pixels by 560 pixels.
- 6. To customize the Salesforce1 **Publisher icon** image, select an image of type .jpg, .gif, or .png files up to 50 KB in size. The maximum image size is 88 pixels by 88 pixels. It will look like the following screenshot:



7. Click on Save.

Summary

In this chapter, we went through various Salesforce applications for mobiles, such as Salesforce1, SalesforceA, and Salesforce#. We also went through ways to configure these apps with download links. We discussed ways to brand the Salesforce1 app according to your company branding. In the next chapter, we will discuss the various ways to deploy changes in the live system.

11 Setting Up Deployment Processes

In the previous chapter, we discussed mobile administration in Salesforce, Salesforce1, Salesforce Classic, Salesforce Touch, and Salesforce A. In this chapter, we will discuss the various ways to deploy elements and changes in a live Salesforce instance. We will go through the following topics:

- Change Sets
- Force.com IDE
- Overview of packages

Understanding Change Sets and their types

Change Sets are containers that are used to send customizations or elements from one organization to another in Salesforce. These containers can only hold metadata, which means you can only send those changes or customizations that you made through the setup menu. You cannot send records from one organization to another using Change Sets. Both the organizations must have a deployment connection between them, for example, production and Sandbox created for the same organization.

Change Sets are of the following two types:

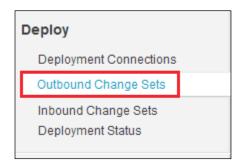
- Outbound Change Sets
- Inbound Change Sets

Outbound Change Sets

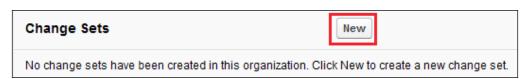
Outbound Change Sets are those Change Sets that are used to send customizations from one organization to another. For example, we have added a new custom field on an account object in Sandbox named Unique Code, and now we want to send it to the production organization. In this case, we can use the Outbound Change Sets to send this customization from Sandbox to production.

To create an Outbound Change Set, follow these steps:

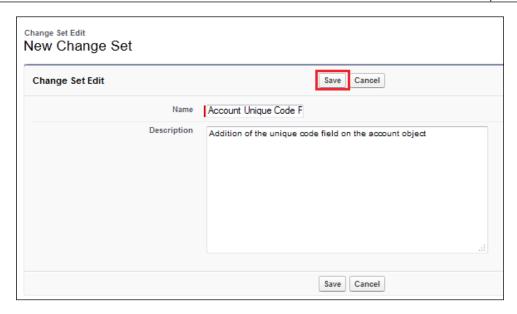
- 1. Log in to your Sandbox by visiting https://test.salesforce.com.
- 2. Navigate to **Setup** | **Deploy** | **Outbound Change Sets**.



- 3. Click on **Continue**.
- 4. On the next screen, click on **New** to make a new Change Set.



5. On the next screen, name this Change Set Account Unique Code Field Addition and give a relevant description to this Change Set, as shown in the following screenshot:



- 6. Click on **Save**.
- 7. On the next screen, select the component type you want to add to this Change Set. In our case, we need to add the account field **Unique Code**, so we need to select **Custom Field**.
- 8. Now on the same screen from the available fields, select the checkbox in front of the custom field **Unique Code**.



9. Click on **Add to Change Set**.

10. On the next screen, click on the **Upload** button.



11. Select the target organization under the **Upload Details** section where you want to upload this Change Set; in our case, select **Production**.



- 12. Click on **Upload**.
- 13. Once you click on **Upload**, you will see the following message on the screen:



14. Once the upload process is complete, you will see the following message:

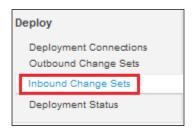


Inbound Change Sets

Inbound Change Sets are the Change Sets that are used to receive customizations from one organization into another. For example, we have added a new custom field on the account object in Sandbox named **Unique Code**, and now we want to receive it from the production organization. In this case, we can use Inbound Change Sets to receive this customization from Sandbox into production.

To receive an Inbound Change Set, follow these steps:

- 1. Log in to your production organization by visiting https://login.salesforce.com/.
- 2. Navigate to Setup | Deploy | Inbound Change Sets.



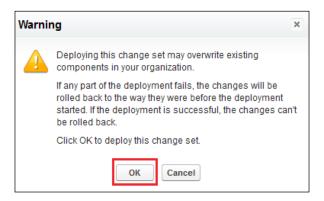
- 3. On the next screen, click on **Continue**.
- 4. On the next screen under the **Change Sets Awaiting Deployment** section, you will find the Inbound Change Set that came from the Sandbox organization.
- 5. Click on the name of the Change Set, in our case, **Account Unique Code Field**.



6. Once on the next screen, click on **Deploy**.



7. Click on **OK** in the pop-up message, which tells you that the changes once deployed are not reversible.



8. You will see the following message while the upload is in progress:



9. Once the upload is complete, you will see the success or failure on the next screen under **Deployment History**.



10. If the status of the Change Set is **Success**, it means the Change Set has been successfully deployed.

The Force.com IDE

The Force.com IDE is a development tool provided by Salesforce.com, which is used to write Apex Classes, Apex Triggers, and Visualforce pages. You can download and edit the metadata components and explore the schema of your Force.com project.

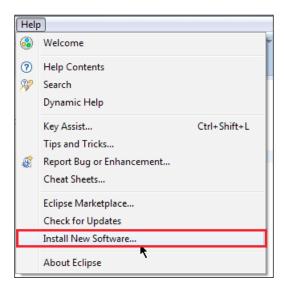
Installing the Force.com IDE

Before installing the Force.com IDE, you need the following aspects to be available and installed on your machine:

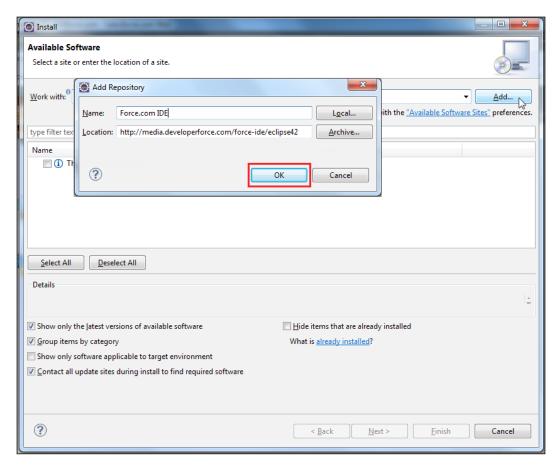
- Java SE Runtime Environment (v1.6 or higher)
- Eclipse IDE for Java Developers (Juno 4.2 or Kepler 4.3)

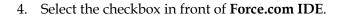
To install the Force.com IDE, follow these steps:

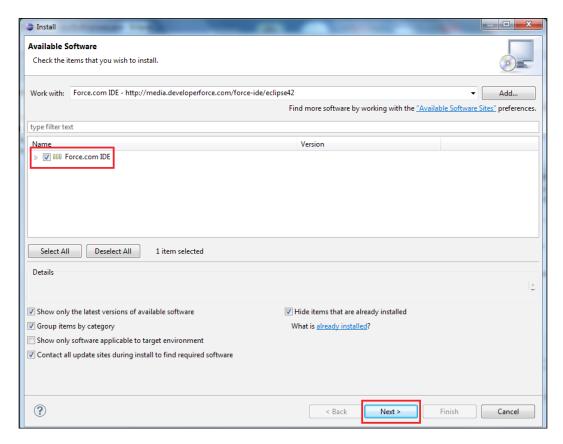
- 1. Open Eclipse for Java Developers.
- 2. Click on the **Install New Software** option in the **Help** tab, as shown in the following screenshot:



3. On the next window, click on the **New** button. In the dialog box, enter Force.com IDE Name in the **Name** field, specify **Location** as http://media.developerforce.com/force-ide/eclipse42, and click on **OK**.







- 5. Click on Next.
- 6. On the **Install Details** dialog box, click on **Next**.
- 7. In the **Review Licenses** dialog, accept the terms and click on **Finish**.
- 8. Once the installation is complete, you will be asked to restart Eclipse. Click on **Yes**.
- 9. When Eclipse restarts, navigate to **Window** | **Open Perspective** | **Other**.
- 10. Select Force.com and click on OK.



Additional information on how to use the Force.com IDE is available at $\label{local_homo} $$ $ \text{https://developer.salesforce.com/page/An_Introduction_to_Force_IDE.} $$$

Overview of packages

Packages are containers that can contain elements such as a single component or a group of apps. Packages are used for distribution purposes among organizations.

Packages are of the following two types:

- Unmanaged packages
- Managed packages

These differences are explored in the following table:

Unmanaged packages	Managed packages
The source code is open to developers/users.	The source code is a closed source.
Components can be edited in the organization after installation.	Components cannot be edited in the organization after installation.
The base organizations have no controller over the package once distributed since the code can be altered in the target organization.	The code can only be altered in the base organization where the package components were created or developed.
These are generally used for module distribution among developers.	These are generally used by Salesforce. com partners to distribute packages as apps to their clients primarily through the marketplace AppExchange.

Summary

In this chapter, we learned about setting the deployment process through various means, such as Change Sets, Force.com IDE, and Packages. In the next chapter, we will discuss installing and uninstalling an app bought from AppExchange, and how AppExchange can enhance the usability of your Salesforce organization.

12

AppExchange – Extending Salesforce Functionality

In the previous chapter, we discussed various ways to deploy a Salesforce.com project. We discussed how to use Change Sets, Force.com IDE, and packages. In this chapter, we will discuss Salesforce's own marketplace for apps known as AppExchange. We will also discuss installing and uninstalling an app bought from AppExchange, and how AppExchange can enhance the usability of your Salesforce organization. The following topics will be covered in this chapter:

- An overview of AppExchange
- Installing an application from AppExchange
- A few noteworthy applications
- Uninstalling an application from Salesforce

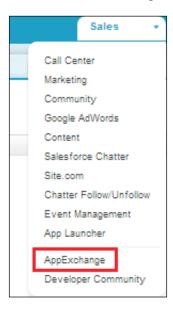
AppExchange – an overview

AppExchange is a marketplace owned by Salesforce.com, where web apps built on the Force.com platform are hosted to be sold. AppExchange is regarded as one of the biggest marketplaces for cloud computing apps. Users can purchase apps from this marketplace and they are directly installed in the user's organization. AppExchange was launched in 2005 by Salesforce.com and has more than 2,300 apps on it. Saleforce.com offers both paid and free apps by the AppExchange marketplace, which are categorized into various categories for both small and big businesses.

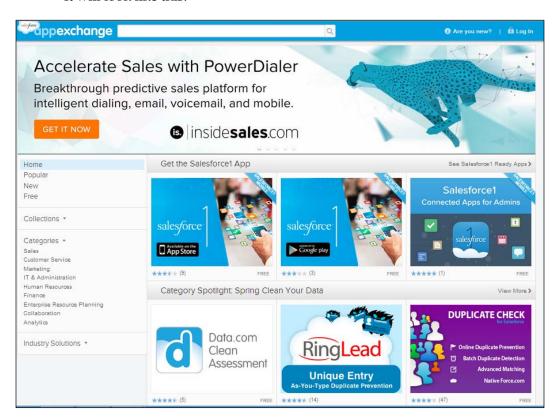
Installing applications from AppExchange

To begin understanding how to install an app from AppExchange, let's consider an example. Suppose the sales team of your organization has plenty of vCards (it may be on their mobile devices) and they want to import them into Salesforce somehow. A possible solution is that they can manually enter the details of each contact into Salesforce as contact records. They may also need functionalities to import and export accounts, leads, and contacts as vCards so that they can share the information with others in the team or sync with their mobile devices. Salesforce doesn't have any box feature for this so you need to have a custom development or download some apps from AppExchange and install them. It will be better if you get a free app. To install an app from AppExchange, follow these steps:

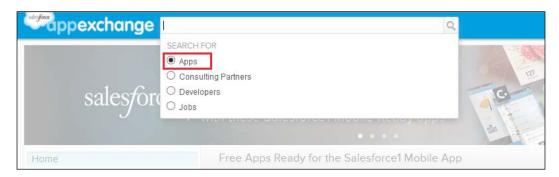
- 1. Log in to your Salesforce account using your credentials.
- 2. Click on the dropdown in the top-right corner and then click on the **AppExchange** link, as shown in the following screenshot:

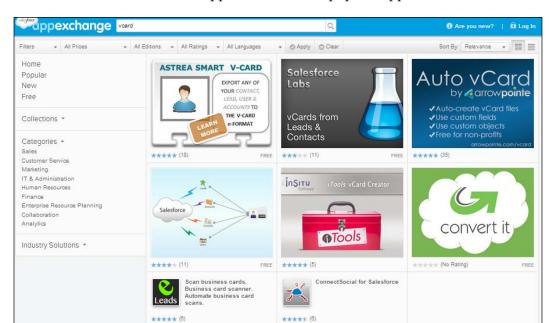


3. When you click on **AppExchange**, a new window will open in the browser. It will look like this:



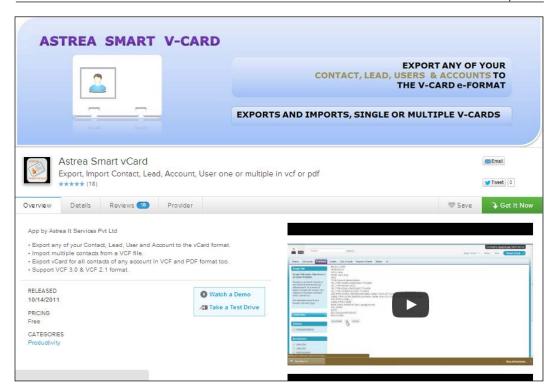
4. In the search bar at the top, enter the keyword vcard. Make sure that the **Apps** radio button is selected.





This will show related apps, with the most popular apps first.

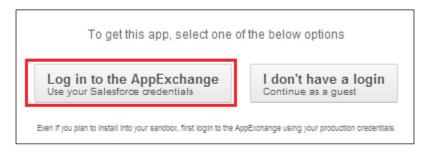
5. From the list of apps, we can see the **Astrea Smart vCard** app first. To install this app, click on **Astrea Smart vCard**. It will redirect you to the details page of the app.



6. Click on the **Get It Now** button, as shown in the following screenshot:



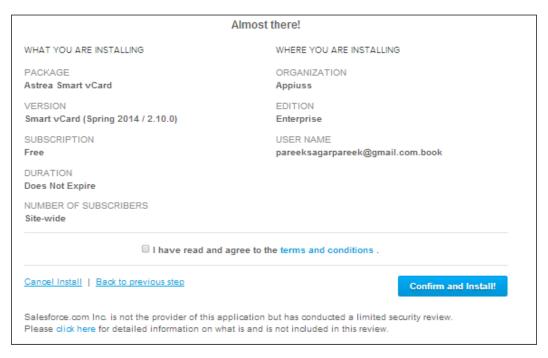
7. On the next screen, you will be asked to log in. Click on **Log in to the AppExchange**. If you don't have a Salesforce account, click on **I don't have a login** button, as shown in the following screenshot:



8. On the next screen, you will be asked to select the type of organization that you want to install the app for. Here, we will select **Install in production** since we are using Developer Edition, but it's good practice to install the app first in your Sandbox by selecting the **Install in sandbox** button, as shown in the following screenshot:



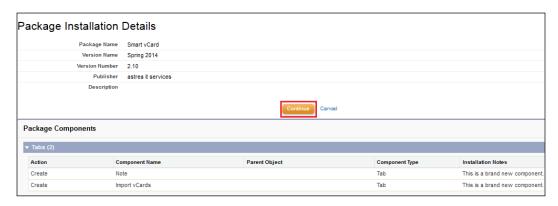
9. On the next screen, you will be asked to agree with the terms and conditions, and this screen will give you brief information about the app you are going to install. Select the checkbox I have read and agree to the terms and conditions and click on the Confirm and Install! button, as shown in the following screenshot:



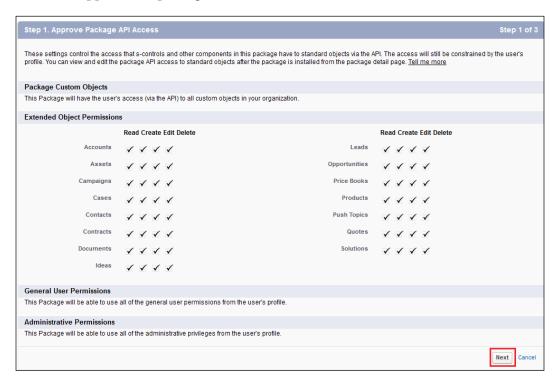
10. Next, you will be asked to log in to the organization where you want to install this app. Enter your login credentials.



11. Then, you will get details about the app and its components that are going to be installed. Click on the **Continue** button, as shown in the following screenshot:



12. Now, the installation wizard will start. On the first screen, you will be asked to approve the package API access. Click on **Next**.



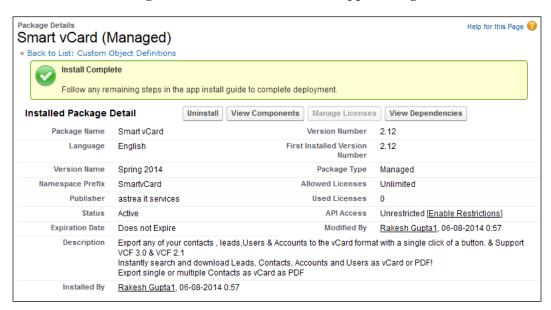
13. On the next screen, you will be asked to choose the security level. Choose **Grant access to admins only** and then click on **Next**, as shown in the following screenshot:



14. Next, click on the **Install** button to start the installation process, as shown in the following screenshot:



15. Once the installation is successfully completed, you will see following screen. You will also get an e-mail notification from AppExchange.



16. Now you can access the features of the app. In our case, we can see the **Import vCard** tab in our organization and the **Generate vCard** button on the accounts, contacts, and leads detail pages.



A few noteworthy applications

These are a few noteworthy apps based upon the number of downloads and popularity with users. They are as follows:

- Form Assembly for AppExchange: This helps you create powerful web forms to collect and send data to any Salesforce custom and standard objects. Capture new leads, update contacts, attach files, or open cases with our easy Form Builder.
- **Drag, Drop, and Upload**: This lets you drag, drop, and upload files and also lets you do so for multiple files at once for a big time saver.
- **Former Positions**: This cleans up your cluttered contacts by automatically tracking changes to a contact's account and title.
- **Layout Page**: This converts any Salesforce page layout (standard or custom) into a Standard Visualforce page in just three simple and easy steps.
- **GoToMeeting Integration**: This saves time by letting users start and schedule their GoToMeetings from inside Salesforce.
- **Dupe Catcher**: This enables Salesforce users to identify, block, and dupe leads, accounts, and contacts in real time at the point of entry.
- **Jitterbit Cloud Data Loader for Salesforce**: This is a free data migration that enables Salesforce users to automate the import/export of data between flat files, databases, and Salesforce or Force.com.
- **Astrea Smart vCard**: This lets you import and export record forms of VCF files (vCards).

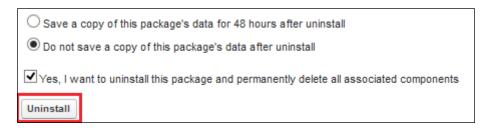
Uninstalling applications from Salesforce

In case you want to uninstall the app that you installed from AppExchange, follow these steps:

- 1. Navigate to **Setup** | **Build** | **Installed Packages**.
- 2. On the next screen, you will see the application packages installed in your organization.



- 3. Click on the **Uninstall** button in front of the application name, as shown in the preceding screenshot.
- 4. On the next screen, you will get information about the components that are going to be uninstalled.
- 5. Select the **Do not save a copy of this package's data after uninstall** radio button.
- 6. Then, select **Yes**, **I** want to uninstall this package and permanently delete all associated components and click on the **Uninstall** button, as shown in the following screenshot:



7. On successfully uninstalling your app, you'll be redirected back to the **Install Packages** screen. The **Uninstalled Packages** section will show the uninstalled packages history.



Summary

In this chapter, we went through the concepts behind Salesforce AppExchange. At the start of the chapter, we discussed the AppExchange overview. Then, we moved on and discussed how to install an app from AppExchange in detail. We also explained the ways to uninstall an app from your organization. Next, we discussed a few key apps from AppExchange.

In this book, we have gone through various Salseforce.com concepts such as Sales Cloud and Service Cloud automating your business process using the workflow and approval process, and improving your organization data quality using validation rules. We also discussed how to use the data loader.

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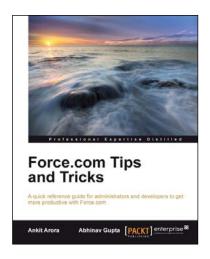
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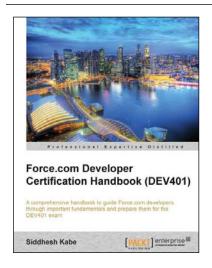


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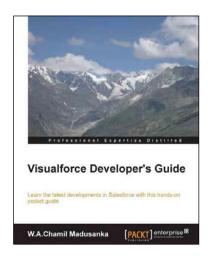
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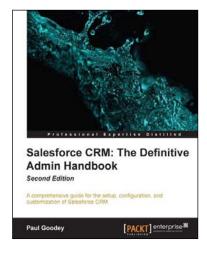


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