Introducing Microsoft Flow

Automating Workflows Between Apps and Services

Vijai Anand Ramalingam



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Vijai Anand Ramalingam New Jersey, USA

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About the Author

Vijai Anand Ramalingam is a Microsoft MVP for Office Servers and Services. He is an experienced senior consultant with a deep knowledge of SharePoint. He is a blogger, author, and speaker. He has published 1,000 blogs/articles on C# Corner. He works as a Technology Specialist in Cognizant Technology Solutions in New Jersey. Vijai has worked on Microsoft SharePoint 2016/2013/2010 and Office 365.

About the Technical Reviewer



Sathish Nadarajan is the co-founder of SharePointPals, a community blog site where you can find numerous tips and tricks about SharePoint. His expertise in SharePoint includes SharePoint strategy and roadmap definitions, business and technical requirements identification, governance, platform architecture, solution design, configuration, development, quality assurance,

training, postproduction support, team lead, and overall project delivery.

Sathish is a Microsoft MVP for Office Servers and Services. Sathish holds a Masters in Technology (M.Tech) and Business Administration. You can contact Sathish by writing to nadarajan.sathish@gmail.com.

CHAPTER 1

Introduction to Microsoft Flow

In this chapter, you will learn the following:

- What Microsoft Flow is
- What is required to work with Flow
- How to create a flow using a template
- How to create a flow from scratch

What Is Microsoft Flow?

Microsoft Flow is a cloud-based service that allows users to create automated workflows across multiple applications and services. "*Work less, do more.*" Microsoft Flow provides features that help line-of-business users to improve productivity through automation. Previously, there was no way for these apps to communicate with each other; Flow provides a way to connect with multiple services and automate tasks. Flow allows power users to create flows based on certain triggers and actions on their own, all with zero coding skills. For example, you can save your email attachments to a SharePoint document library. Flow can be accessed via web browsers (it supports Microsoft Edge and the current versions of Chrome and Safari) and mobile apps.

The Flow home page shows the key features that are available such as templates, popular services, an overview of Flow, and more; see Figure 1-1.



Figure 1-1. Featured templates and popular services

Figure 1-2 shows a sample flow overview.



Figure 1-2. Overview of a flow

The menus available in the top navigation bar are shown in Figure 1-3.

My flows	Approvals	Templates	Connectors	Learn∨	Search templates	Q
				Guided Le	arning	
				Document	ation	
				Support		
				Communit	Ŋ	
				Give Feed	back	
				Blog		
				Pricing		

Figure 1-3. Top navigation on the Flow home page

My flows: View all of your flows.

Approvals: Create and automate a business approval process. Refer to Figure 1-4 for a sample approval flow.



Figure 1-4. Sample approval flow

Templates: Find many built-in templates to start your flow.

Connectors: Find all available services

Learn: Find documentation, blogs, and more information for learning purposes.

Flow vs. Logic Apps

Microsoft Flow is built on top of Logic Apps and they both have the same workflow designer. The information in Table 1-1 will help you determine when to choose Flow or Logic Apps.

	Microsoft Flow	Logic Apps
Users	Can be used by business users, administrators, and power users to automate the business process. Requires zero coding skills.	Can be used by developers and IT pros to mesh with advanced features such as integration with the Azure portal, Azure resource manager, and additional connectors.
Accessibility	Only through a web browser and the mobile app as the UI.	Can be accessed via web browser, Visual Studio, and code view.
Application Life Cycle Management	Can be developed and tested directly in a production environment.	Follows DevOps security practice with the appropriate source control, testing, support, automation, and manageability.

Table 1-1. Flow vs. Logic Apps

Flow vs. SharePoint Designer Workflows

SharePoint Designer allows you to create automated workflows specific to SharePoint, whereas Flow can be used for SharePoint, OneDrive, Twitter, Office 365 Outlook, and many other services.

SharePoint Designer has only 3 triggers and 7 list actions whereas Flow has 7 triggers and 35 actions for SharePoint.

Note These counts are accurate at the time of writing. The counts will increase during the course of Microsoft's updates.

Figure 1-5 shows the available workflow triggers in SharePoint Designer.

Start Options	^
Change the start options for this worldlow.	
Allow this workflow to be manually started Start workflow automatically when an item is created Start workflow automatically when an item is changed	

Figure 1-5. SharePoint Designer workflow triggers

Figure 1-6 shows the available workflow actions in SharePoint Designer.



Figure 1-6. SharePoint Designer workflow actions

Figure 1-7 shows the available Flow triggers and actions for SharePoint.



Figure 1-7. Flow triggers and actions for SharePoint

Connectors

Connectors provide a way for users to connect to the underlying service using their accounts to create automated workflows. As mentioned, examples of popular services include SharePoint, Office 365 Outlook, OneDrive, Twitter, and more. There are more than 150 connectors; you can see all of the available connectors by navigating to the Flow site, as shown in Figure 1-8.



Figure 1-8. The Connectors page

Connectors consist of two elements: *triggers* and *actions*. Triggers are used to initiate a flow when a specific event occurs. For example, the available triggers for OneDrive are displayed in Figure 1-9.



Figure 1-9. OneDrive connector triggers

An action is something that should take place once the event is fired. For example, the available actions for OneDrive are displayed in Figure 1-10.



Figure 1-10. OneDrive connector actions

Templates

Microsoft Flow provides many built-in templates to create commonly used solutions more quickly and efficiently. All of the available templates can be seen by navigating to the Flow site. They are categorized as shown in Figure 1-11.



Figure 1-11. The Templates page

Environments

You can group flows and their related resources into separate environments for different scenarios. For example, if you want to create flows for your legal department and you want to make sure only the legal department has access to these flows, you can create a new environment. You must be a Microsoft Flow administrator in order to create environments and provide access to environments.

Mobile App

Flow can be accessed via the mobile app. You can download the app for iOS, Android, and Windows. Then you can create and manage the flows from your phone.

Pricing

Navigate to the Flow site (https://flow.microsoft.com) to see pricing information. In the top navigation, click Learn and then click Pricing, as shown in Figure 1-12.



Figure 1-12. Getting to the Pricing page

On the Pricing page, the details related to pricing plans and your current plan are displayed, as shown in Figure 1-13. On the Pricing page, you can also switch plans based on your requirements.



Figure 1-13. Plan information

Note The default trigger is checked every few minutes and the time interval is based on your plan selection.

Timing of trigger checks:

Microsoft Flow for Office 365 plan: Every 5 minutes

Flow plan 1: Every 3 minutes

Flow plan 2: Every minute

The Microsoft Flow for Office 365 (free) plan is used in this book so the trigger will be checked every 5 minutes.

Prerequisites

As a prerequisite, you need a Microsoft Flow account in order to create automated workflows using Flow. Perform the following steps to get a free Flow account:

- Navigate to the Flow site at https://flow. microsoft.com.
- 2. If you have used other online Microsoft products, click **Sign in**, as shown in Figure 1-14.



Figure 1-14. Sign in button location on the home page

3. Enter an email address and click **Next** on the Sign in page, as shown in Figure 1-15.



Figure 1-15. Click the Next button

4. Enter a password and then click **Sign in**, as shown in Figure 1-16.

	Microsoft
1	Enter password
2	Sign in
	Keep me signed in Forgot my password
	Sign in with a different Microsoft account

Figure 1-16. Click the Sign in button

5. If you haven't used other online Microsoft products, click the **Sign up free** button shown in Figure 1-17.



Figure 1-17. The Sign up free button

6. Enter an email address and click the right arrow, as shown in Figure 1-18.



Figure 1-18. Sign up

7. On the Enter password page, enter a password and then click **Sign in**, as shown in Figure 1-19.



Figure 1-19. Sign up, part 2

Quick Start

In this section, you will learn how to create and test flows two ways: using a built-in template and from scratch.

Creating Your First Flow from a Template

In this section, you will create your first flow by using a built-in template. This example will cover how to share your tweets on Facebook.

Here are the steps involved:

 Navigate to the Flow site at https://flow. microsoft.com. 2. In the top navigation, click **My flows**. Click the **Create from template** link shown in Figure 1-20.



Figure 1-20. Create from template

 Type the facebook keyword in the search text box and then click Enter. Click the Share my Tweets on Facebook template shown in Figure 1-21.



Figure 1-21. Select a template

 As mentioned, connectors provide a way for users to connect to the underlying service using their accounts in order to create automated workflows. Sign into Twitter and Facebook by clicking Sign in, as shown in Figure 1-22.



Figure 1-22. Sign in

5. Once the flow is connected to your Twitter and Facebook accounts, click **Continue**, as shown in Figure 1-23.



Figure 1-23. Continue to create the flow

6. A trigger and an action will be added by default as part of the template, as shown in Figure 1-24.

*Search text	Search term like "happy hour", #haiku, love OR hate	
	\downarrow	
f Post To N	My Timeline	
Using the default	t values for the parameters. Edit	

Figure 1-24. Default trigger and action

7. Go to the trigger named **When a new tweet appears** and enter the search text shown in Figure 1-25.



Figure 1-25. Configure the trigger

8. Go to the **Post To My Timeline** action and click **Edit** to view the default values for the parameters, as shown in Figure 1-26.



Figure 1-26. Edit the action

 By default, the Status message is set to Tweet text. Click Show advanced settings to see the default values for the other parameters, as shown in Figure 1-27, and update the default values based on the requirements.

Post To My Timeline	i	
* Status message 1 Tweet text ×		
2 Show advanced options 🗠		

Figure 1-27. Configure the action

 After you're done with the changes, enter a name for the flow or leave the default name, as shown in Figure 1-28. Click Create Flow.

Flow 1 Share my Twee	ts on Facebook	2 V Create flow	imes Close
y When	a new tweet appears		
*Search text	"SharePoint", #SharePoint, SharePoint		
_	\downarrow		
f Post	o My Timeline		
* Status messa Show advance			
	+ New step 🗸 Save flow		

Figure 1-28. Save and create the flow

11. The flow has been created successfully. Click **Done**, as shown in Figure 1-29.



Figure 1-29. The flow has been created!

12. Figure 1-30 shows the details of the newly created flow.



Figure 1-30. Flow details

To test your flow, perform the following steps:

 Navigate to your Twitter account. Post a new Tweet and add the hashtag #SharePoint, as shown in Figure 1-31.



Figure 1-31. Post a tweet

 For this template, the default trigger is every 5 minutes. After 5 minutes, navigate to your Facebook account. You should see a new post, as shown in Figure 1-32.



Figure 1-32. Your new tweet

Thus, in this section, you learned how to create your first flow by using a built-in template.

Creating A Flow from Scratch

In this section, you will learn how to create a flow from scratch. The example will be how to send email to a Gmail account when there is a new Facebook post on your timeline that contains the **SharePoint** keyword.

Here are the steps involved:

- Navigate to the Flow site at https://flow. microsoft.com.
- In the top navigation, click My flows. Then click the Create from blank link, as shown in Figure 1-33.



Figure 1-33. Create from blank

3. Click **Search hundreds of connectors and triggers**, as shown in Figure 1-34.

Create a flow from blank Creating a flow is easy, choose trigger to get started.			
When a new email arrives	Start with one of ti	hese popular triggers When a feed item is published	When a file is created
When a new tweet is posted	When a file is created	When a file is created	When a record is created
	1 Q Search hundreds	Or of connectors and triggers	

Figure 1-34. Search for connectors

 Type the facebook keyword in the search text box and then click the Facebook – When there is a new post on my timeline trigger, as shown in Figure 1-35.



Figure 1-35. Add a trigger

5. Click **New Step** and then click **Add a condition**, as shown in Figure 1-36.

When there is a new post on my timeline	
No additional information is needed for this step. You will be able to use the our subsequent steps.	tputs in
+ New step	
Add an 2 Add a condition More	
Add an Add a condition More	

Figure 1-36. Add a condition

6. The condition should be Timeline Feed Feed Item Status Message contains SharePoint. Select the dynamic content Timeline Feed Feed Item Status Message for the first box by clicking Add dynamic content, selecting Contains from the drop-down (second box), and typing SharePoint in the third box, as shown in Figure 1-37.

	,		
			Condition
iharePoint	~	contains	Timeline Feed ×
iharePoint Collapse c	~	contains	Timeline Feed × Add dynamic content + dvanced mode

Figure 1-37. Configure the condition

 Go to the If yes action and click Choose an action. Type Gmail in the search text box and then click the Gmail – Send email action, as shown in Figure 1-38.

✓ If yes	
Choose an action	
✓ Gmail	
Connectors	See more
Gmail	
Triggers (1) Actions (5)	See more
Gmail - Delete email	(;)
Gmail - Get email details	()
Gmail - Move email to trash	(i)
Gmail - Reply to email	()
2 Gmail - Send email 🖑	()
TELL US WHAT YOU NEED	
Help us decide which connectors and triggers to	add next with UserVoice
	Cancel

Figure 1-38. Choose an action

8. Fill in the **To** address, **Subject**, and **Body** fields, as shown in Figure 1-39.
Note The status message will be displayed in the body (Timeline Feed Feed Item Status Message).

Send email		(i) ···
*To	anavijai@gmail.com	
Subject	Facebook Updates - SharePoint	
Body	f Timeline Feed ×	
	Timeline Feed Feed Item Status messa	nic content +
Attachments Name	Title of the attachment.	id)
Attachments Content	Body of the attachment.	
Attachments Content- Type	Type of content in the attachment.	

Figure 1-39. Add values to the parameters

9. Enter the name for the flow and click **Create flow,** as shown in Figure 1-40.

CHAPTER 1 INTRODUCTION TO MICROSOFT FLOW

Flow name Send email when there is a new post 2	✓ Create flow X Close
When there is a new post on my timeline	···
Add grunnic content: [] Efit in advanced mode College V Hypes V no	e condition
+ New step Save flow	

Figure 1-40. Save and create the flow

10. The flow has been created successfully. Click **Done**, as shown in Figure 1-41.

Your flow was created. To exit, click Done. To see it work now, create a new tweet. This may take a few moments.
--

Figure 1-41. Flow created

11. The details of the newly created flow are shown in Figure 1-42.



Figure 1-42. Flow details

To test your flow, perform the following steps:

1. Navigate to your Facebook account. Post a new status that contains the **SharePoint** keyword, as shown in Figure 1-43.



Figure 1-43. Post a status

 For this template, the default trigger is every
 5 minutes. After 5 minutes, navigate to your Gmail account and you should see a new email, as shown in Figure 1-44.



Figure 1-44. Email received

Thus, in this section, you learned how to create a flow from scratch.

CHAPTER 1 INTRODUCTION TO MICROSOFT FLOW

Try It Yourself

Post to Yammer if a new tweet contains a certain hashtag.

Hint Use a built-in template.

CHAPTER 2

Tutorials

In this chapter, you will learn how to

- Create flows using different connectors, triggers, and actions
- Create flows using conditions, switch cases, parallel actions, expressions, and more
- Create flows from SharePoint, OneDrive, and Microsoft Teams

You'll explore the different scenarios via examples.

Save Tweets That Include a Specific Hashtag to a SharePoint List

In this section, you will learn how to create a flow to save tweets that include a specific hashtag to a SharePoint list. A SharePoint Online list named **Tweets** will be used to save the tweets. It consists of two fields: Title (single line of text) and Tweet (multiline of text), as shown in Figure 2-1.

33



Figure 2-1 SharePoint custom list named Tweets

Perform the following steps:

- Navigate to the Flow site at https://flow. microsoft.com.
- 2. In the top navigation, click **My flows**. Click the **Create from template** link shown in Figure 2-2.

:	II My flows Approvals	Templates	Connectors Learn~	Search templates	<u>م</u>	
			My flows	Team flows		+ Create from template

Figure 2-2. The Create from a template link

 Click the Data collection category and type the Twitter keyword in the search text box. Click the Save tweets that include a specific hashtag to a SharePoint list template shown in Figure 2-3.



Figure 2-3. Select the template

 Sign into your SharePoint Online and Twitter accounts by clicking Sign in. Once you have successfully connected to SharePoint and Twitter, click Continue, as shown in Figure 2-4.



Figure 2-4. Continue to create the flow

5. Figure 2-5 shows the trigger and action that will be added by default as part of the template.

* Search text	Search term like "happy hour", #haiku, love OR hate	
	\downarrow	
Create item		
*Site Address	Example: https://contoso.sharepoint.com/sites/sitename	\checkmark
* List Name	SharePoint list name	~

Figure 2-5. Trigger and action

6. Go to the **When a new tweet appears** trigger and enter the search text shown in Figure 2-6. Note that search text is case-insensitive.



Figure 2-6. The new trigger

 Go to the Create item action and select or add values to the Site Address, List Name, Title, and Tweet fields, as shown in Figure 2-7.

Create item		
*Site Address	Flow Tutorials - https://c986.sharepoint.com/sites/Flow	\sim
*List Name	Tweets	\sim
* Title	Tweeted by ×	
Tweet	Tweet text ×	
	Add dyna	mic content 🛨
Content type Id		\sim

Figure 2-7. Create an item action

 After you've made all of the changes, enter a name for the flow or leave the default name, as shown in Figure 2-8. Click Create Flow.

Flow 1 Save	tweets that inclu	de a specific hashtag to a ShareP	✓ Create flow	imes Close
	When a new tw	eet appears		
	*Search text	"SharePoint,", #SharePoint, SharePoint		
		\downarrow		
	Create item			
	* Site Address	Flow Tutorials - https://c986.sharepoint.com/sites/Flow	~	
	* List Name	Tweets	\sim	
	*Title	Y Tweeted by X		
	Tweet	Yweet text ×		
		Add dyna	mic content 🖭	
	Content type Id		~	
		+ New step 🗸 Save flow		

Figure 2-8. Save and create the flow

9. The flow has been created successfully. Click **Done**, as shown in Figure 2-9.

Figure 2-9. Flow created

10. Figure 2-10 shows the details of the newly created flow.



Figure 2-10. Flow details

To test your flow, perform the following steps:

 Navigate to your Twitter account. Post a new tweet and add the hash tag #SharePoint, as shown in Figure 2-11.



Figure 2-11. Post a tweet

 For this template, the default trigger is every 5 minutes. After 5 minutes, navigate to your SharePoint Online list and you should see a new item, as shown in Figure 2-12.

FT Flow Tutorials	
+ New 🖉 Quick edit 🛛 🔯 Export to Excel	$_{\rm D}{}^{\prime \rm d}$ Flow \lor $$ \clubsuit PowerApps \lor $ \cdots$
Tweets	
Title 🗸	Tweet > +
clearstring	#sharepoint alternative. clearString web app platform is the better choice #smb #enterprise https://t.co/8nsR71alcz
anavijai	SharePoint Updates: https://t.co/DR0B5U05fw #SharePoint

Figure 2-12. New SharePoint list item

Thus, in this section, you learned how to create a flow to save tweets that include a specific hashtag to a SharePoint list.

Save Email Attachments to a SharePoint Document Library and Get a Notification

In this section, you will learn how to create a flow to save email attachments to a SharePoint document library and get a notification.

Perform the following steps:

- Navigate to the Flow site at https://flow. microsoft.com.
- 2. In the top navigation, click **My flows**. Click the **Create from template** link.
- Click the Notifications category and type save my email in the search text box. Click the Save my email attachments to a SharePoint and get a notification template, as shown in Figure 2-13.



Figure 2-13. Select a template

 Sign into your SharePoint Online, Notifications, and Office 365 Outlook accounts by clicking Sign in. Once connected, click Continue, as shown in Figure 2-14.



Figure 2-14. Continue to create the flow

5. Figure 2-15 shows the trigger and actions that will be added by default as part of the template.

On new email		•••
Folder	Mail folder to check for new emails	
	\downarrow	
Create fileScope		
*Select an output from previous steps	Attachments x	
Create file		
Ţ A	dd an action I I I I I I I I I I I I I I I I I I I	
1 Apply to each		
* Select an output from previous steps	Attachments ×	
Send a push n	otification	
	dd an action 🛛 🕁 Add a condition 🛛 •••• More	

Figure 2-15. Trigger and actions

 Go to the **On new email** trigger and select the Office 365 Outlook folder, as shown in Figure 2-16 and Figure 2-17.

On new email		(j) ····]		
Folder	Mail folder to check for new emails		Office 365 Outlook		\times
		<u><u><u></u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>	Clutter	>	^
	<u>.</u>		Conversation History	>	
			Deleted Items	>	
			Drafts	>	
		2	Inbox	>	
			Junk Email	Ð	
			Outbox	>	
			Sent Items	>	-

Figure 2-16. Select the Office 365 Outlook folder

On new email		
Folder	Inbox	

Figure 2-17. Inbox folder selected

 Go to the Create file action and fill in the Site Address and Folder Path fields, as shown in Figure 2-18.

Create fileScope		
* Select an output from previous steps	Attachments ×	
	\oplus	
Create file		(i) ····
* Site Address	Flow Tutorials - https://c986.sharepoint.com/sites/Flow	~
* Folder Path	/Shared Documents	
Using the default values	for the parameters. Edit	
T a	Id an action 🛛 🕁 Add a condition 🛛 •••• More	

Figure 2-18. The Create file action

8. Go to the **Send a push notification** action. If required, update the default values based on your requirements, as shown in Figure 2-19.

ţ,	Apply to eac	h
	ct an output previous steps	Attachments ×
Ĺ	Send a pu	ish notification
* T	ext	Attachment " 2 Name × " saved successfully to SharePoint!
Lir	ık	Include a link in the notification
		Add dynamic content +
Lir	ik label	The display name for the link
		Add an action I Add a condition I More

Figure 2-19. Send a push notification

 After you've made the changes, enter a name for the flow or leave the default name, as shown in Figure 2-20. Click Create Flow.



Figure 2-20. Save and create the flow

10. The flow has been created successfully. Click **Done**, as shown in Figure 2-21.

Your flow was created. To exit, click Done. To see it work now, create a new tweet. This may take a few moments.
--

Figure 2-21. Flow created

11. Figure 2-22 shows the details of the newly created flow.



Figure 2-22. Flow details

To test your flow, perform the following steps:

1. Send an email with attachments to your Office 365 Outlook account, as shown in Figure 2-23.



Figure 2-23. Email with attachments

2. For this template, the default trigger is every 5 minutes. After 5 minutes, navigate to the selected SharePoint folder and you should see the Outlook email attachments saved as documents, as shown in Figure 2-24.

FT Flow Tutorials			
+ New ∨ 〒 Upload ∨ ♀ Sync 🛯 Expo	rt to Excel $\mathbf{e'}^a$ Flow \vee		
Documents			
\square Name \checkmark	Modified \checkmark		
		Modified By \smallsetminus	+
How to create a basic bot using	11 minutes ago	Vijai Anand Ramalingam	+
 and a set of the se			+
	11 minutes ago	Vijai Anand Ramalingam	+

Figure 2-24. Email attachments uploaded to a SharePoint folder

 Make sure to download the mobile app and connect to receive notifications. Refer to Chapter 4 to learn more about the mobile app.

Thus, in this section, you learned how to create a flow to save email attachments to a SharePoint folder and get a notification.

Send an Email When an Item Is Modified in a SharePoint List

In this section, you will learn how to create a flow to send an email when an item is modified in a SharePoint list. A SharePoint Online list named **Project Tracker** will be used. It consists of the following fields (also shown in Figure 2-25):

- Project Name (single line of text)
- Description (multiple lines of text)
- Project Type (choice)
- Status (choice)



Figure 2-25. Project Tracker SharePoint list

Perform the following steps:

- Navigate to the Flow site at https://flow. microsoft.com.
- 2. In the top navigation, click **My flows**. Click the **Create from template** link.
- Click the Email category and type the sharepoint keyword in the search text box. Click the When an item in a SharePoint list is modified send an email template, as shown in Figure 2-26.



Figure 2-26. Select a template

4. Click **Edit in advanced mode**, as shown in Figure 2-27.

~
~

Figure 2-27. The Edit in advanced mode button

5. Go to the **When an existing item is modified** trigger and fill in the **Site Address** and **List Name** fields with the information shown in Figure 2-28.

When an exist	ing item is modified	
*Site Address	Flow Tutorials - https://c986.sharepoint.com/sites/Flow	~
*List Name	Project Tracker	\sim
	L.	

Figure 2-28. Trigger parameters

6. Go to the **Send Email** action and enter a value for the **To** address (to whom email has to be sent), as shown in Figure 2-29.

Ø	Send Email	(i)	
*To	Vijai Anand Ra 🗙 ;		
Usin	g the default values for the parameters. Edit		

Figure 2-29. Send an email

 After you've made the changes, enter a name for the flow or leave the default name, as shown in Figure 2-30. Click Create Flow.

Flow 1 When an item in a Sha	rePoint list is modified send an e	2 Create flow	imes Close
When an existin	ig item is modified		
*Site Address *List Name	Flow Tutorials - https://c986.sharepoint.com/sites/Flow Project Tracker	× ×	
	÷		
C Send Email	Vijai Anand Ra × ;		
Using the default values	for the parameters. Edit		
	+ New step 🧹 Save flow		

Figure 2-30. Save and create a flow

8. The flow has been created successfully. Click **Done**, as shown in Figure 2-31.



Figure 2-31. The flow has been created

9. Figure 2-32 shows the details of the newly created flow.



Figure 2-32. Flow details

To test your flow, perform the following steps:

1. Navigate to the SharePoint Online list and modify an existing item, as shown in Figure 2-33.

🗟 Save	imes Cancel	🐵 Copy link	✤ Customize		\times
User Acc	cess Manag	gement Proje	ect		
Title *					
User Acce	ss Managemen	t Project			
Description	ı				
	ess Management e used for audit		vhich will be used to t	rack all user access details	
				I	
Project Typ	e				
Simple				~	
Status					
Approved	ł			~	
Attachmen	ts				
Add attach	iments				
Save	Cancel				

Figure 2-33. Update an existing list item

2. For this template, the default trigger is every 5 minutes. After 5 minutes, navigate to your Office 365 Outlook and you should see a new email, as shown in Figure 2-34.



Figure 2-34. Received email

Thus, in this section, you learned how to create a flow to send an email when an item is modified in a SharePoint list.

Add an Event to Google Calendar When an Item Is Added in SharePoint

In this section, you will learn how to create a flow to add an event to Google Calendar when an item is added in SharePoint. A SharePoint Online list named **Conference Details** will be used for this flow. It consists of following fields (also shown in Figure 2-35):

- Title (single line of text)
- Description (multiple lines of text)
- Start Date (date and time)
- End Date (date and time)
- Location (location)



Figure 2-35. Conference Details SharePoint list

Perform the following steps:

- Navigate to the Flow site at https://flow. microsoft.com.
- 2. In the top navigation, click **My flows**. Click the **Create from template** link.
- Click the Events and calendar category and type the sharepoint keyword in the search text box. Click the Add an event when an item is added in SharePoint template shown in Figure 2-36.



Figure 2-36. Select a template

 Sign into your SharePoint Online and Google Calendar accounts by clicking Sign in. Once connected to SharePoint and Google Calendar, click Continue, as shown in Figure 2-37.

Add an event when an ite	em is added in SharePoint
s > -	→ 31
SharePoint	Google Calendar
When a new item is added in ShareF Google Calendar.	Point, add an event to a certain
This flow will connect to:	
SharePoint View permissions	🥏 vijaianand@C986.onmicr \cdots
Google Calendar	🥑 anavijai@gmail.com \cdots
2 Cont	tinue

Figure 2-37. Continue to create the flow

5. Go to the **When a new item is created** trigger and fill in the **Site Address** and **List Name** fields, as shown in Figure 2-38.



Figure 2-38. Trigger parameters

6. Go to the **Create an event** action and add dynamic content to the parameters, as shown in Figure 2-39.

Create an eve	nt	0
alendar ID	anavijai@gmail.com	×
tart time	Start Date ×	Dynamic content Expression
nd time	End Date ×	Search dynamic content
scription	Description x	
cation	Location Value ×	Item is a Record
		Add dynamic content
ising the default value	is for the parameters. Edit	Coation Value
		Modified When this item was last changed.
	+ New step 🗸 Save flo	W Modified By Claims Internal identifier for the user who last changed this item
		Modified By Department Department name of the user who last changed this item
		Modified By DisplayName The name of the user who last changed this item.
		Modified By Email Email address of the user who last changed this item.

Figure 2-39. Add dynamic content

 After you've made the changes, enter a name for the flow or leave the default name, as shown in Figure 2-40. Click Create Flow.

Flow 1 Add	an event when ar	n item is added in SharePoint 2 Create flow >	< Close
	When a new ite	tem is created ····	
	*Site Address *List Name	Flow Tutoria's - https://c986.sharepoint.com/sites/Flow Conference Details	
	Create an even		
	*Calendar ID *Start time	anavija@pmali.com	
	*End time Description	End Date x Description x	
	Location	Location Value x Add dynamic content	
	Using the default values	es for the parameters. Edit	
		+ New step 🗸 Save flow	

Figure 2-40. Save and create the flow

8. The flow has been successfully created. Click **Done**, as shown in Figure 2-41.



Figure 2-41. The flow has been created

9. Figure 2-42 shows the details of the newly created flow.



Figure 2-42. Flow details

To test your flow, perform the following steps:

1. Navigate to the SharePoint Online Conference Details list and create a new item, as shown in Figure 2-43.

Conference Details				
Title \checkmark	Description \smallsetminus	Start Date 🗸	End Date \smallsetminus	Location \smallsetminus
Microsoft MVP Summit 2018	Microsoft MVP Summit 2018	3/4/2018 12:00 AM	3/9/2018 12:00 AM	United States

Figure 2-43. Create a new item

2. For this template, the default trigger is every 5 minutes. After 5 minutes, navigate to your Google calendar and you should see a new event, as shown in Figure 2-44.



Figure 2-44. New event created in Google Calendar

3. When you create a date field in a SharePoint list, make sure you select **"Date & Time."** Otherwise the flow will fail due to an incorrect date format, as shown in Figure 2-45.



Figure 2-45. Invalid date format issue

Thus, in this section, you learned how to create a flow to add an event to Google Calendar when an item is added in SharePoint.

Create a Flow from a SharePoint Online List

In this section, you will learn how to create a flow from a SharePoint Online list to post a message to Yammer. A SharePoint Online list named **Conference Details** will be used for this flow. It consists of the following fields (also shown in Figure 2-46):

- Title (single line of text)
- Description (multiple lines of text)
- Start Date (date and time)

- End Date (date and time)
- Location (location)

FT Flow Tutorials					
+ New 🖉 Quick edit 🗐 Expor	t to Excel 👦 🖉 Flow 🗸 🔅 PowerAp	os ~ •••			
Conference Details					
Title \checkmark	Description \smallsetminus	Start Date 🗸	End Date \smallsetminus	Location \lor	

Figure 2-46. Conference Details SharePoint List

Perform the following steps:

- Navigate to a SharePoint Online list. For example, https://c986.sharepoint.com/sites/Flow/ Lists/Conference%20Details/AllItems.aspx.
- 2. In the menu, click **Flow** and then click **Create a flow**, as shown in Figure 2-47.



Figure 2-47. Create a flow

3. Click **Post a message to Yammer** for a selected item template, as shown in Figure 2-48.



Figure 2-48. Select a template

 Sign into your SharePoint Online and Yammer accounts by clicking Sign in. Once connected to SharePoint and Yammer, click Continue, as shown in Figure 2-49.



Figure 2-49. Continue to create the flow

5. Go to the **Get item** action and leave the default values for the parameters, as shown in Figure 2-50.

Get item	·	(i) ···
*Site Address	Flow Tutorials - https://c986.sharepoint.com/sites/Flow	\sim
*List Name	Conference Details	\checkmark
*Id	ID x	

Figure 2-50. Action parameters

6. Go to the **Post message** action, select the **Group ID** from the drop-down, and update the message text by adding the dynamic content shown in Figure 2-51.

	Ý	
Y Post message 2	· ···	
*Group ID	PathToMVP	
-	Conference Title: Title x Description: Description x	Dynamic content Expression
*Message Text 2	Start Date: 1 Start Date x	P Search dynamic content
-	End Date: End Date x Location: Location Value x	Created By Email Email address of the user who created this item.
	Add dynamic content	Created By JobTitle Job title of the user who created this item.
Network ID		Created By Picture Unk to a picture of the user who created this item.
Show advanced options	·	Description
		1 End Date
	+ New step 🗸 Save flow	Polder path Path to the folder the item is in, relative to the site addr
		Has attachments Indicates the presence of attachments in the item.
		D List item id. Use this value for specifying the item to act
		Identifier Value that can be used in file related actions for selection

Figure 2-51. Add dynamic content
7. Go to the **For a selected item** trigger, click **Edit**, and delete the input message, as shown in Figure 2-52.



Figure 2-52. The For a selected item action

 After you're done with the changes, enter a name for the flow or leave the default name, as shown in Figure 2-53. Click Create Flow.

E >	For a selected it	em		
*Site Ac	ddress	Flow Tutorials - https://c986.sharepoint.com/sites/Flow	\sim	
*List Na	ame [Conference Details	~	
+ /	Add a <mark>n in</mark> put			
€>	Get item	Ţ		
*Site Ac	ddress	Flow Tutorials - https://c986.sharepoint.com/sites/Flow	~	
"List Na	ame	Conference Details	~	
*td		ID ×		
		-++ 		
y€	Post message 2			
*Group	ID [PathToMVP	~	
		Conference Title: 1 Title ×		
		Description: Description x Start Date: Start Date x		
*Messa	ge Text	Start Date: Start Date × End Date: D End Date ×		
		Location: 1 Location Value ×		
		Add dyna	mic content 🖃	
Network	k ID	Cognizant	\sim	
Show a	dvanced options \sim			

Figure 2-53. Save and create the flow

9. The flow has been created successfully. Click **Done**, as shown in Figure 2-54.

Your flow was created. To exit, click Done. To see it work now, create a new tweet. This may take a few moments.
--

Figure 2-54. The flow has been created

10. Figure 2-55 shows the details for the newly created flow.



Figure 2-55. Flow details

To test your flow, perform the following steps:

1. Navigate to the SharePoint Online Conference Details list, select an existing item, and click more options. Click **Flow** and then click the flow that you created, as shown in Figure 2-56.

Conference Details				
\bigcirc Title \lor	Description \lor		Start Date \lor	End Date \smallsetminus
1 O Microsoft MVP Summit 2018	Microsoft MVP Summit 20	018	3/4/2018 12:00 AM	3/9/2018 12:00 AM
	Open			
	Edit			
	Share			
	Copy link			
	Copy field to clipboard			
	Delete			
3	Flow 4	Pyst a message t	o Yammer for a selected	litem
	Alert me	Create a flow	o rammer for a selected ne	
	More >	See your flows		
	Details			

Figure 2-56. Run a flow for an existing item

2. Click **Continue**, as shown in Figure 2-57.



Figure 2-57. Continue to run the flow

3. Click **Run flow**, as shown in Figure 2-58.



Figure 2-58. Run flow

4. Navigate to **Yammer** and go to the respective group that was selected as **Group ID** in the Post message action. You should see a new post in Yammer, as shown in Figure 2-59.



Figure 2-59. A message posted in Yammer

Thus, in this section, you learned how to create a flow from a SharePoint Online list to post a message to Yammer.

Create a Flow from OneDrive

In this section, you will learn how to create a flow to copy a file from OneDrive for Business to SharePoint.

1. Navigate to www.office.com. Click the **OneDrive** app, as shown in Figure 2-60.



Figure 2-60. The OneDrive app

2. Click **Flow** and then click **Create flow**, as shown in Figure 2-61.



Figure 2-61. Create a flow

3. Click **See more templates**, as shown in Figure 2-62.



Figure 2-62. The See more templates button

 Click the Copy files between OneDrive for Business and SharePoint template shown in Figure 2-63.



Figure 2-63. Select a template

5. Sign into OneDrive for Business and SharePoint. Click **Continue**, as shown in Figure 2-64.



Figure 2-64. Continue to create the flow

 Select the OneDrive folder, SharePoint site address, and SharePoint folder path where the file has to be copied and then click Create Flow, as shown in Figure 2-65.

*OneDrive for Business Folder	
1	
*SharePoint Site Address	
Flow Tutorials - https://c986.sharepoint.com/sites/Flow	~
*SharePoint Folder Path	
/Shared Documents	
Edit in advanced mode	
2 Create Flow	

Figure 2-65. Update the parameter values to create the flow

7. The flow has been created successfully. Figure 2-66 shows the details of the newly created flow.



Figure 2-66. Flow details

To test your flow, perform the following steps:

1. Navigate to **OneDrive** and upload a document, as shown in Figure 2-67.

Files			
🗋 Name î \smallsetminus	Modified \smallsetminus	Modified By \smallsetminus	File Size \smallsetminus
1 Webinar_3_11152016Introduc	A few seconds ago	Vijai Anand Ramalingam	1.00 MB
		Drag files here to	upload

Figure 2-67. Upload a document to OneDrive

2. For this template, the default trigger is every 5 minutes. After 5 minutes, navigate to the SharePoint folder specified in the flow where the file will be copied and you should see the copied file, as shown in Figure 2-68.

FT Flow Tutorials			
$+$ New \vee $~$ $\stackrel{\scriptstyle \sim}{ o}$ Upload \vee $~$ $\stackrel{\scriptstyle \sim}{ o}$ Sync $~$ 🕼 Export t	o Excel $\mathbf{p}^{\mathbf{a}}$ Flow \vee		
Documents			
\square Name \checkmark	Modified \smallsetminus	Modified By \smallsetminus	+
Webinar_3_11152016_Introduc	About a minute ago	Vijai Anand Ramalingam	

Figure 2-68. Copied file in SharePoint

Thus, in this section, you learned how to create a flow to copy a file between OneDrive for Business and SharePoint.

Create a Flow in Microsoft Teams

In this section, you will learn how to create a flow to post a message in Microsoft Teams when specific documents are uploaded in SharePoint.

Perform the following steps:

- Navigate to Microsoft Teams at https://teams. 1. microsoft.com.
- In the left navigation, click **Store** and then click 2. Flow, as shown in Figure 2-69.



Figure 2-69. Select the Flow app

Click Install, as shown in Figure 2-70. 3.

/ •	Flow Automate time-consuming and repetitive tasks b favorite apps and services with Microsoft Flow.	X by integrating your
Add for you		Yes
으 Chat	with a bot to ask questions and find info	
	track of important content and info	
About View more By Microso Version 1.0	oft Corp.	
Privacy and p	•	
 By using F 	low, you accept its privacy policy and terms of use:	
Receive	messages and data that I provide to it.	
		1 Install

Figure 2-70. Install the Flow app

4. Open the Flow app, as shown in Figure 2-71.



Figure 2-71. Open the Flow app

5. You'll see four tabs (Conversation, Flows, Approvals, and About). Sign into Flow, as shown in Figure 2-72.



Figure 2-72. Sign into Flow

 Once you sign into Flow, you should see all of your flows. Click Create from template, as shown in Figure 2-73.

🔎 F	low			
Conve	Flows	Approvals About		
	My flows	Team flows		+ Create from template
		Name	Last modified	
	05 80- <mark>0</mark>	Save my email attachments to a SharePoint and get a notification	1 day ago	• off l k ····
	5> 31	Add an event when an item is added in SharePoint	1 day ago	• on la k ^R ····
	SD⊳ SD⊳ ye	Post a message to Yammer for a selected item	1 day ago	• of land the second se
	80- Q2	When an item in a SharePoint list is modified send an email	1 day ago	• of land the second se
	У ₿≻	Save tweets that include a specific hashtag to a SharePoint list	2 days ago	€ off Ø g ^A ···

Figure 2-73. Create a flow from a template

7. Click the **Alert the team when specific documents are uploaded** template shown in Figure 2-74.



Figure 2-74. Select a template

8. Once connected to Microsoft Teams and SharePoint, click **Continue**, as shown in Figure 2-75.

This flow	w will connect to:			
T	Microsoft Teams		✓ vijaianand@C986.onmicr	
s>	SharePoint View permissions		✓ vijaianand@C986.onmicr	
		Continue		

Figure 2-75. Continue to create the flow

 Go to the When a file is created trigger and fill in the Site Address and Folder Id fields, as shown in Figure 2-76.



Figure 2-76. Trigger parameters

10. Go to the **Post messageScope** condition and check whether the file name **contains SharePoint**, as shown in Figure 2-77.

Post messageScope	G
x-ms-file-name × contains ∨	SharePoint Add dynamic content
Edit in advanced mode	Collapse condition

Figure 2-77. Check the condition

11. If the condition is satisfied, alert the team by posting a message. Go to the Alert the team action and select Team Id and Channel Id. If required, update the default values for the parameters by clicking Edit, as shown in Figure 2-78.

✓ If yes				
	\oplus			
Alert the team	(Preview)	(i) ····		
*Team Id	CSharpcorner	\sim		
*Channel Id	Tech Sessions	\sim		
Using the default values for the part 2 Edit				
	T Add an action •••• More			

Figure 2-78. Action parameters

 After you're done with the changes, enter a name for the flow or leave the default name, as shown in Figure 2-79. Click Create Flow.

Flow name Alert the team when specific documents are up	oloaded 2 Create flow X Close
When a file is created	
Post message/Scope Post message/Scope Contains Contai	SharePoint Add dynamic content [] Collagee condition
V If yes	fno
• New step 🖉 Sr	ve flow

Figure 2-79. Save and create a flow

13. The flow has been created successfully. Click **Done**, as shown in Figure 2-80.



Figure 2-80. The flow has been created

To test your flow, perform the following steps:

1. Navigate to the SharePoint Document Library and upload a document with a file name that contains SharePoint, as shown in Figure 2-81.

Γ	Documents					
		Name \checkmark		Modified \smallsetminus	Modified By \smallsetminus	+
	0	^と How to connect to SharePoint 2 ビ	:	A few seconds ago	Vijai Anand Ramalingam	

Figure 2-81. Upload a document

2. For this template, the default trigger is every 5 minutes. After 5 minutes, navigate to Microsoft Teams and you should see a new message in the respective team and channel, as shown in Figure 2-82.



Figure 2-82. Message posted in Microsoft Teams

Thus, in this section, you learned how to create a flow to post a message in Microsoft Teams when specific documents are uploaded in SharePoint.

Send Reminder Emails for Overdue Tasks in SharePoint

A common requirement in SharePoint is to send reminder emails for overdue tasks. You can achieve this using any of the following approaches:

- SharePoint designer workflow
- Scheduling console application or PowerShell script
- Configuring a retention policy or any other approach

In this section, you will learn how to create a flow to send reminder emails for overdue tasks in SharePoint.

Perform the following steps:

- Navigate to the Flow site at https://flow. microsoft.com.
- 2. In the top navigation, click **My flows**. Click the **Create from blank** link shown in Figure 2-83.



Figure 2-83. Create from blank

3. Click **Search hundreds of connectors and triggers**, as shown in Figure 2-84.



Figure 2-84. Search for more connectors

4. Click the **Schedule** connector, as shown in Figure 2-85.



Figure 2-85. Schedule connector

5. Click the **Schedule – Recurrence** trigger, as shown in Figure 2-86.



Figure 2-86. The Schedule - Recurrence trigger

 Leave the default interval as 5 minutes, as shown in Figure 2-87, so that you can test it and update the interval in real time based on your requirements.

🙆 Re	currence		(j) ····
*Interval 5 Show adva	anced options 🗡	* Frequency Minute	~

Figure 2-87. Recurrence interval

7. Click **Next step** and then click **Add an action**, as shown in Figure 2-88.



Figure 2-88. Add an action

8. Type the keyword **sharepoint** in the search text box and then click the **SharePoint - Get items** action shown in Figure 2-89.



Figure 2-89. Select the SharePoint – Get items action

 Select the SharePoint site address and list name and then set the filter query with the filter condition of **Due Date less than current date** (DueDate lt datetime'@{utcNow()}'), as shown in Figure 2-90.

Note The tasks list will not be displayed in the **List Name** dropdown; you need to enter the list name manually by clicking **Enter custom value**.

Get items	0	Dynamic 2	Expression	
*Site Address	Flow Tutorials - https://c986.sharepoint.com/sites/Flow	f _x		
*List Name	Tasks	ОК		
Filter Query	DueDate It datetime 1 dutcNow() × Add dynamic content	fr max(colle	ection or item1, item2?,) he maximum value in the input ar	ray of numbers
Order By	An ODATA orderBy query for specifying the order of entries.	fr add(sum	mand_1, summand_2) he result from adding the two nur	mbers
Top Count	Total number of entries to retrieve (default = all).	sub(minu	uend, subtrahend) he result from subtracting two nu	
Hide advanced options	*^	Date and time		See more
		3 dtcNow() Returns ti) he current timestamp as a string	
	+ New step		nds(timestamp, seconds, format? integer number of seconds to a st	

Figure 2-90. Update the parameter values for the Get items action

10. Click **Next step** and then click **More**. Click **Add an apply to each**, as shown in Figure 2-91.



Figure 2-91. The Add an apply to each button

11. Add the dynamic content value from the **Get items** output to the **Select an output from previous steps** parameter, as shown in Figure 2-92. Click **Add an action**.

÷	Dynamic content
Cl Apply to each ····	✓ Search dynam
*Select an output from previous steps value ×	Get items
Add dynamic content	Predecessors
3	List of Items
4 I Add an action I Add a condition · · · · More	

Figure 2-92. Add an action

 Type office 365 in the search text box and then click the Office 365 – Send an email action shown in Figure 2-93.

ľ	Choose an action	
1	office 365	
	Connectors	See more
	💁 🚺 🕼 🌼 🕸	
	Office 365 Office 365 Microsoft Office 365 Office 365 Outlook Users Teams Groups Video	
	Triggers (12) Actions (67)	See more
	Office 365 Outlook - Respond to an event invite	(i) 🔺
2	Office 365 Outlook - Send an email	(j)

Figure 2-93. Select the Office 365 Outlook – Send an email action

- 13. Add static and dynamic content, as shown in Figure 2-94:
 - To: Assigned To Email (dynamic content)
 - **Subject**: Reminder Task Overdue *Task Name* (dynamic content)
 - **Body**: Complete the task by today *Task Name* (dynamic content) *Link to Item* (dynamic content)

Note In the **Send an email** action, when the dynamic content **Assigned To Email** is added to the **To** field, one more loop named **Apply to each 2** is automatically added, as shown in Figure 2-94. This is because by default the **Assigned To** field in the tasks list has **Allow multiple selections** set to **Yes.** You can change or check the column settings by navigating to the list settings.

previous steps	value ×	
	Add dynam	nic conter
	\oplus	
Apply to each 2		
Select an output	Assigned To ×	
Select an output rom previous steps	Assigned To ×	
rom previous steps		
rom previous steps		
om previous steps		

Figure 2-94. The Send an email action

 After you're done with the changes, enter a name for the flow and click Create Flow, as shown in Figure 2-95.

Flow n	Send reminder email for overdue tasks in SharePoint 2 Create flow	imes Close
	Recurrence	
	Get items ····	
	Apply to each ···· ···	
	*Select an output from previous steps Add dynamic content	
	Send an email	
	T Add an action T Add a condition · · · More	
	+ New step 🗸 Save flow	

Figure 2-95. Save and create the flow

15. The flow has been created successfully. Click **Done**, as shown in Figure 2-96.



Figure 2-96. The flow has been created

This flow is On Send reminder email for overdue tasks in SharePoint 🖉 Edit flow 🛛 … More 0 Send reminder email for overdue tasks in SharePoint See all > CONNECTIONS Add a description SharePoint Vijalanand@C986.onmicr s 🕽 s Office 365 Outlook vijalanand@C986.or 02 Z See analytics OWNERS See all Vijai Anand Ramalingam vijaianand@C986.onmicrosoft.c. See all > RUN HISTORY Running Add another owner 19 seconds ago 19 seconds ago

Figure 2-97 shows the details for the newly created flow.

Figure 2-97. Flow details

16. To test your flow, look for overdue tasks in the tasks list, as shown in Figure 2-98.



Figure 2-98. Tasks list

 Every 5 minutes, the flow will be executed and will send emails about all overdue tasks, as shown in Figure 2-99.



Figure 2-99. Overdue tasks emails

Thus, in this section, you learned how to create a flow to send reminder emails for overdue tasks in SharePoint.

Add a Switch Case in a Flow

In this section, you will learn how to use a switch case in a flow. A SharePoint Online custom list named **Social Media** will be used for this flow. It consists of the following fields (also shown in Figure 2-100):

- Title (single line of text)
- Post To (choice)

Home FT	Flow Tut	orials			
+ New	🖉 Quick edit	Export to Excel	⊳⁄ª Flow ∨	✤ PowerApps ∨	
Social	Media				
Title	~		Post To \smallsetminus	+	

Figure 2-100. Social Media list

A flow will be triggered when a new item is added and it will post a message on Twitter, Yammer, or Facebook based on the **Post To** field selection in the list item.

Perform the following steps:

- Navigate to the Flow site at https://flow. microsoft.com.
- 2. In the top navigation, click **My flows**. Click the **Create from blank** link, as shown in Figure 2-101.



Figure 2-101. The Create from blank link

3. Click **Search hundreds of connectors and triggers**, as shown in Figure 2-102.

Start with one of these popular triggers					
When a new email arrives	When an item is created	When a feed item is published	When a file is created		
When a new tweet is posted	When a file is created	When a file is created	When a record is created		
Or Q Search hundreds of connectors and triggers					

Figure 2-102. Search for more connectors

 Type the keyword sharepoint in the search text box and then click the SharePoint – When an item is created trigger shown in Figure 2-103.



Figure 2-103. Select the SharePoint – When an item is created action

5. Select the SharePoint **Site Address** and **List Name**, as shown in Figure 2-104.

When an item is created				
* Site Address	Flow Tutorials - https://c986.sharepoint.com/sites/Flow	\sim		
* List Name	Social Media	\sim		

Figure 2-104. Action parameters

6. Click **Next step** and then click **Add a switch case** from more options, as shown in Figure 2-105.

1 + New step Save 1	flow	
Add an action Add a class	 More	Add a switch case
		Add a scope

Figure 2-105. Add a switch case

7. Add the dynamic content **Post To Value** to the switch case, as shown in Figure 2-106.

2	Dynamic content Expression
Switch	Search dynamic content
*On C Post To Value x	Department name of the user who last changed this item.
*On Post To Value ×	Modified By DisplayName The name of the user who last changed this item.
	Modified By Email Email address of the user who last changed this item.
	Dob title of the user who last changed this item.
	Modified By Picture Link to a picture of the user who last changed this item.
	File name of the item in document libraries, display nam
	Dost To
	Dost To Value

Figure 2-106. Add dynamic content to the switch case

8. Go to **Case**, enter the value as **Twitter**, and then click **Add an action**, as shown in Figure 2-107.



Figure 2-107. Case - Twitter

9. Type the keyword **Twitter** in the search text box and then click the **Twitter – Post a tweet** action, as shown in Figure 2-108.

Case		
*Equals	Twitter	
Choose an act	ion	
1 P twitter		
Connectors		See more
Y		
Twitter		
Triggers (1) Acti	ons (9)	See more
Twitter - C	Set my followers	··· 🔺
Twitter - C	Set my following	<u>(</u>)
Twitter - C	Set user	(i)
Twitter - C	Get user timeline	0
2 Twitter - F	Post a tweet	()

Figure 2-108. Select the Twitter – Post a tweet action

10. Add the dynamic content of **Title** to **Tweet text**, as shown in Figure 2-109.

ase		···· + Default
*Equals	Twitter	2 Dynamic content Expression
Post a	tweet	© ····
		Internal identifier for the user who last changed this item.
Tweet text	3 Title x	Add dynamic content
Show advanced	d options 🗠	Modified By DisplayName The name of the user who last changed this item.
		Modified By Email Email address of the user who last changed this item.
	T Add an action ···· M	Modified By JobTitle Job title of the user who last changed this item.
		Link to a picture Unk to a picture of the user who last changed this item.
		File name of the Item in document libraries, display nam
		+ New step Post To Value
		Title In

Figure 2-109. The Post a tweet action

11. Click the + sign to add a case, as shown in Figure 2-110.



Figure 2-110. Add a case
12. Go to **Case 2**, enter the value as **Yammer**, and then click **Add an action**, as shown in Figure 2-111.

Case 2		
*Equals	1 Yammed	
	2 Add an action More	

Figure 2-111. Case 2 - Yammer

 Type the keyword **Yammer** in the search text box and then click the **Yammer – Post Message** action shown in Figure 2-112.

Case 2
*Equals Yammer
Choose an action
1 P yammer
Connectors
Y€
Yammer
Triggers (2) Actions (6)
Y Yammer - Get all messages
Y Yammer - Get groups
Y Yammer - Get my networks
Y Yammer - Gets messages in a group
Y Yammer - Gets the messages from my Following feed
2 Yammer - Post message

Figure 2-112. Select the Yammer - Post Message action

14. Select the Group ID and Network ID and then add the dynamic content of **Title** to **Message Text**, as shown in Figure 2-113.

Equals	Yammer	
10		
Post mess	age	
Group ID	PathToMVP	~
• Message Text	1 Title ×	
		Add dynamic content 🛨
Network ID	No.	\sim
Show advanced opt	ions 🗸	

Figure 2-113. The Post Message action

15. Go to **Default** and click **Add an action**, as shown in Figure 2-114.



Figure 2-114. Add an action

 Type the keyword Facebook in the search text box and then click the Facebook – Post to my timeline action shown in Figure 2-115.



Figure 2-115. Select the Facebook – Post to my timeline action

17. Add the dynamic content of **Title** to **Status message**, as shown in Figure 2-116.



Figure 2-116. The Post to my timeline action

Enter a name for the flow and then click Create flow, as shown in Figure 2-117.



Figure 2-117. Create a flow

19. Figure 2-118 shows the details for the newly created flow.



Figure 2-118. Flow details

To test your flow, perform the following steps:

1. Navigate to the SharePoint Online custom list. Create a new item with a message that has to be posted and select the **Post To** value where it has to be posted. A new item will be created with a message and posted to **Twitter**, as shown in Figure 2-119.

层 Save	imes Cancel	👁 Copy link	✤ Customize	×
New ite	m			
Title *				
Microsoft	t Flow - Switch C	lase Demo		
Post To				
Twitter				\sim
Attachmer				
Add attac				
Save	Cancel			

Figure 2-119. Create a new item

 For this template, the default trigger is every 5 minutes. After 5 minutes, navigate to the Twitter account and you should see a new tweet, as shown in Figure 2-120.

Tweet	ts T	weets & r	eplies			
		and @anavij t Flow - Swit	ai · 4m ch Case Dem	0	``	~
	Q	tl	\bigcirc	dt		

Figure 2-120. New tweet

Thus, in this section, you learned how to use a switch case in Flow.

CHAPTER 3

Approval Flows

Microsoft Flow allows you to create and manage the approval of documents or processes. For example, whenever a document is uploaded to SharePoint, it can be sent for approval.

Manage Approvals

Microsoft Flow allows approvers to respond to requests from

- An approval center
- An email inbox
- A mobile app

In the approval center, all received and sent requests are available and the approvers have the ability to respond, send emails, and more. Click **Received requests** to view all of the requests waiting for approval. Upon clicking the request, details will be displayed, as shown in Figure 3-1.



Figure 3-1. Received requests

Click **Sent requests** to view all the requests sent for approval. Upon clicking the request, details will be displayed, as shown in Figure 3-2.

Received requests Sent rec	quests	Approve this document
© Feb 25	© Feb 25	Created
to Vijel Anand Ramalingam Approve this document	to Vjai Anund Ramalingam Approve this document	Details Please approve if this file is ready for prime time. Job for SharePoint Online.pptx
a Awaiting response	Awaiting response	Status Waiting for response
		Sent To Vijai Anand Ramalingam vijaianand@C986.onmicrosoft.com

Figure 3-2. Approved requests

Start an Approval When a New Item Is Added in SharePoint

In this section, you will learn how to create a flow to start an approval when a new item is added in SharePoint.

Perform the following steps:

- Navigate to the Flow site at https://flow. microsoft.com.
- 2. In the top navigation, click **Approvals** and then select the **Start approval when a new item is added** template. Click **Add**, as shown in Figure 3-3.



Figure 3-3. Select a template

3. Sign into your Office 365 Outlook and SharePoint accounts. Click **Continue**, as shown in Figure 3-4.



Figure 3-4. Continue to create the flow

 Go to the When a new item is added trigger and select a site address and list name, as shown in Figure 3-5.



Figure 3-5. When a new item is created

 Go to the Start an approval action, add an Assigned To value, and leave the default values as is for the other parameters, as shown in Figure 3-6. If required, update the values for the parameters based on requirements.

Start an approv	val	(i) ···
* Title	Please review: Ditle ×	
* Assigned To	Vijai Anand Ra × ;	
Details	Created By Dis × at Created ×	
Item Link	Dink to item ×	
Item Link Description	I Name ×	

Figure 3-6. Start an approval

6. Go to the **Condition** action. If required, update the default values for the parameters based on requirements, as shown in Figure 3-7.

	Condition			
	Edit in advanced mode	o v App	rove Collepse condition	
🗸 If yes		X If no		
			Ŧ	
Inform its	em creator of approval	02 Inform ite	em creator of rejection	0 …
•To	Created By Email x	*To	Created By Email ×	
	Item Title × approved	*Subject	Item: Title × rejected	
* Subject				
*Subject *Body	Your request for Trifle × has been approved by Approver Name × . Comments (if any).	* Body	Your request for Title × has been re Approver Name × . Comments 6f an	

Figure 3-7. Conditions

 After you're done with the changes, enter a name for the flow or leave the default name, as shown in Figure 3-8. Click Create Flow.

Flow 1 Start approval when a new item is added	2 Create flow X Close
When a new item is created	
Start an approval	
Condition	···
Edit in advanced mode	Collapse condition
If yes	K If no

Figure 3-8. Create the flow

8. The flow has been created successfully. Click **Done**, as shown in Figure 3-9.

• Your flow was created. To exit, click Done. To see it work now, create a new tweet. This may take a few moments.	1 Done
---	--------

Figure 3-9. The flow has been created

This flow is On Start approval when a new item is added 🖉 Edit flow 🛛 … More Start approval when a new item is added CONNECTIONS See all > s Use this template for processing approvals on SharePoint list items. The approver can view their approval requests in the Approvals Center and over email. Once an item is approved or rejected, the item creator is Approvals sent a confirmation email. Edit description Office 365 Outlook 0 vijaianand@C986.onmicrosoft. harePoint 07 vijaianand@C986.onmicrosoft. See analytics OWNERS See all See all > RUN HISTORY Vijai Anand Ramalingam When your flow runs, you'll see its history here. Learn More viiaianand@C986 onmicrosoft.com Add another owner

Figure 3-10 shows the details of the newly created flow.

Figure 3-10. Flow details

To test your flow, perform the following steps:

1. Navigate to the SharePoint Online custom list and add a new item, as shown in Figure 3-11.

FT Flow Tutoria	ls	
🕂 New 🖉 Quick edit 🛙 🕅 E	xport to Excel $\ _{o}/^{a}$ Flow \lor $\$ PowerApps \lor \cdots	
Project Tracker		
Project Name \smallsetminus	Description \smallsetminus	Project Type \smallsetminus
User Access Management	User Access Management for Applications which will be used to track all user access details and will be used for audit purpose.	Medium

Figure 3-11. Add a new item

 For this template, the default trigger is every 5 minutes. After 5 minutes, the approver will receive an email in Office 365 Outlook, as shown in Figure 3-12. Click Approve, provide approver comments, and then click Submit.

Approvals Powered by Microsoft Flow
Pending approval
Requested by Vijai Anand Ramalingam <u>vijaianand@C986.onmicrosoft.com</u>
Details:Vijai Anand Ramalingam at 2018-02-24T20:21:36ZLink:User Access Management
Approve Reject
Approved
Submit

Figure 3-12. Approval email

 Once the approver approves or rejects the request, the requester will receive an email, as shown in Figure 3-13.



Figure 3-13. Requester email

Thus, in this section, you learned how to create a flow to start an approval when a new item is added in SharePoint.

Start an Approval for a New File to Move to a Different Folder

In this section, you will learn how to start an approval to move a new file to a different folder. The high-level design for this flow is shown in Figure 3-14.

		When a file is cr	reated		
				1	
		Start an approv	al (†	2	
		Condition	¥		
		Response ×	is equal to	Approve	Collapse condition
V If yes				X If no	
Create file					
		/			
Delete file					
	🖵 Add an action	••• More			

Figure 3-14. High-level flow design

Perform the following steps:

- Navigate to the Flow site at https://flow. microsoft.com.
- In the top navigation, click Approvals and then select the Start an approval for new file to move it to a different folder template. Click Add, as shown in Figure 3-15.



Figure 3-15. Select a template



3. Sign into your SharePoint account and then click **Continue**, as shown in Figure 3-16.

Figure 3-16. Continue to create the flow

4. Go to the **When a file is created** trigger and select a site address and folder, as shown in Figure 3-17.



Figure 3-17. Fill in the trigger parameters

 Go to the Start an approval action, add the Assigned To value, and leave the default values for the other parameters, as shown in Figure 3-18. If required, update the values for the parameters based on the requirements.

Start an appro	val
* Title	Approve this document
*Assigned To	Vijai Anand Ra × ;
Details	Please approve if this file is ready for prime time.
Item Link	Specify a link to the item to approve.
	Add dynamic content 🛨
Item Link Description	Specify a description for the item to approve.

Figure 3-18. Start an approval

 Go to the Create file action under the Condition – If yes action and select the site address and folder where the file is to be copied, as shown in Figure 3-19.

	Condition	•			
	Edit in advanced mode	is equal to	\sim	Approve	Collapse condition
				_	
V If yes					
Create file					
* Site Address	Flow Tutorials - https://c986.sharepoint.com/sites/Flow	\checkmark			
* Folder Path	/Approved Documents				
Using the default values	for the parameters. Edit				

Figure 3-19. The Create file action

 Go to the Delete file action under the Condition – If yes action and select the site address, as shown in Figure 3-20. The file identifier is the dynamic content or output returned from the When a file is created trigger, which will be used to delete the file.

Delete file		
* Site Address	Flow Tutorials - https://c986.sharepoint.com/sites/Flow	\sim
* File Identifier	E File identifier ×	Ē

Figure 3-20. The Delete file action

 Once you're done with the changes, enter a name for the flow or leave the default name, as shown in Figure 3-21. Click Create flow.

Flo	w 1 S	tart an approval i	for new file	to move it	to a differe	ent f	2 ✓ Cr	eate <mark>f</mark> low
		When a fi	le is created					
		Start an a	pproval	↓ ↓				
		Condition		•		Anneur		
		Edit in advanced n		is equal to	~	Approve	Collapse condition	
If yes					X If no	0		
Create file		.l.						
Delete file		V						
	🖵 Add an actic	on ••• More						

Figure 3-21. Click the Create flow button

9. Figure 3-22 shows the details of the newly created flow.



Figure 3-22. Flow details

To test your flow, perform the following steps:

1. Navigate to the SharePoint Online document library and upload a document, as shown in Figure 3-23.

FT Flow Tutorials		
$+$ New \vee $\overline{\uparrow}$ Upload \vee \bigcirc Sync 🛛 Export	to Excel ${}_{\rm e}\!{\prime}^{\rm a}$ Flow \smallsetminus	
Documents		
\square Name \checkmark	Modified \smallsetminus	Modified By \smallsetminus
Webinar_2_1042016Getting st	A few seconds ago	Vijai Anand Ramalingam

Figure 3-23. Upload a document

 For this template, the default trigger is every 5 minutes. After 5 minutes, the approver will receive an email in Office 365 Outlook, as shown in Figure 3-24. Click Approve, provide approver comments, and then click Submit.

	Approvals Powered by Microsoft Flow
	Pending approval
	Requested by Vijai Anand Ramalingam <u>vijaianand@C986.onmicrosoft.com</u>
	Details: Please approve if this file is ready for prime time. Webinar_2_1042016_Getting started with Microsoft Flow.pptx
1	Approve Reject
2	Approved
3	Submit

Figure 3-24. Approval email

3. Once the file is approved, the file will be moved to different folder, as shown in Figure 3-25.

FT Flow Tutorials			
+ New \lor $\overline{\uparrow}$ Upload \lor $\widehat{\bigcirc}$ Sync 🗖 Export	to Excel ${}_{\mathbf{o}}\!\!/^{\mathbf{a}}$ Flow \smallsetminus		
Approved Documents			
\square Name \checkmark	Modified \smallsetminus	Modified By \smallsetminus	+
Webinar_2_1042016Getting st	About a minute ago	Vijai Anand Ramalingam	

Figure 3-25. The file was moved to a different location

Thus, in this section, you learned how to start an approval for moving a newly created file to a different folder.

Create a Sequential Approval Flow

In this section, you will learn how to create a sequential workflow. The high-level design for this flow is shown in Figure 3-26.



Figure 3-26. Sequential flow overview

Perform the following steps:

- Navigate to the Flow site at https://flow. microsoft.com.
- 2. In the top navigation, click **My flows** and then click **Create from blank**, as shown in Figure 3-27.



Figure 3-27. Create from blank

3. Click the **When an item is created** trigger shown in Figure 3-28.

When a new email arrives	Start with one of the	when a feed item is	When a file is created
When a new tweet is posted	When a file is created	When a file is created	When a record is created
		Or of connectors and triggers	

Figure 3-28. Select the trigger

4. Go to the **When an item is created** trigger and fill in the **Site Address** and **List Name** fields, as shown in Figure 3-29.

When an item	is created	
* Site Address	Flow Tutorials - https://c986.sharepoint.com/sites/Flow	\sim
* List Name	Expense Report	\sim

Figure 3-29. The When an item is created action

5. Click **Next step** and then click **Add an action**, as shown in Figure 3-30.



Figure 3-30. Add an action

6. Type the keyword **Approvals** in the search text box and then click the **Approvals – Start an approval** action, as shown in Figure 3-31.

1 Approvals	
Connectors See more	
Approvals	
Triggers (0) Actions (1) See more	•
2 Approvals - Start an approval	(j)
TELL US WHAT YOU NEED	
Help us decide which connectors and triggers to add next with UserVoice	
Can	cel

Figure 3-31. Select the action and trigger

 Select the Anyone from the assigned list approval type, shown in Figure 3-32. If required, select Everyone from the assigned list as the approval type.



Figure 3-32. The Start an approval action

8. Update the parameter values by adding dynamic content, as shown in Figure 3-33.

Start an appro	val	(j) ····
* Approval type	Anyone from the assigned list	\sim
*Title	Review the expense report - 😰 Title 🗙	
* Assigned to	Supervisor Email × ;	
Details	Dink to item ×	
	A	dd dynamic content +
Item link	Add a link to the item to approve	
Item link description	Describe the link to the item	

Figure 3-33. Add parameters

- 1 + New step Save flow Add an a 2,1 Add a condition More
- 9. Click **Next step** and then click **Add a condition**, as shown in Figure 3-34.

Figure 3-34. Add a condition

10. Set the condition to **Response is equal to Approve**, as shown in Figure 3-35.

Condition				
Response x	is equal to	\sim	Approve	
Edit in advanced mode				Collapse condition

Figure 3-35. Set the condition

11. Go to the **If no** action and click **Add an action**. Type the keyword **sharepoint** in the search text box and then click **SharePoint – Update item** action, as shown in Figure 3-36.

F	Choose an action	
1	sharepoint	
	Connectors	See more
	🗈 📚 🎄	
	SharePoint DocFusion Muhimbi Plumsail SP — SP PDF	
	Triggers (6) Actions (36)	See more
2	SharePoint - Update item	(i)

Figure 3-36. Chose an action

12. Go to the **Update item** action and update the parameter values shown in Figure 3-37.

If no		
Update item	5	
*Site Address	Flow Tutorials - https://c986.sharepoint.com/sites/Flow	\sim
*List Name	Expense Report	\checkmark
*Id	ID ×	
* Title	😰 Title ×	
Amount		
Status Value	Rejected	\checkmark
Expense Date		
Supervisor Claims		\sim
Director Claims		\vee

Figure 3-37. The Update item action

 Go to the If yes action, click More, and then click Add a condition, as shown in Figure 3-38.



Figure 3-38. Add a condition

14. Set the condition as **Amount is greater than 10000**, as shown in Figure 3-39.

Condition 2		
Amount × Edit in advanced mode	is greater than \checkmark	10000 Add dynamic content + Collapse condition
Edit in advanced mode		Collapse condition

Figure 3-39. Set the condition

15. Go to the If no (under Condition 2) action and click Add an action. Type the keyword sharepoint in the search text box and then click the SharePoint – Update item action, as shown in Figure 3-40.



Figure 3-40. Chose an action

Condition 2			
Amount × is gre Edit in advanced mode	ater than V 1000	0 Collapse condition	
	X If no		
		\oplus	
	Update item	2	··· ··
	*Site Address	Flow Tutorials - https://c986.sharepoint.com/sites/Flow	~
	*List Name	Expense Report	~
	*Id	ID ×	
	* Title	Title ×	
	Amount		
	Status Value	Approved	\sim
	Expense Date		
	Supervisor Claims		~
	Director Claims		~

16. Go to the **Update item** action and update the parameter values shown in Figure 3-41.

Figure 3-41. The Update item action

 Go to the If yes (under Condition 2) action and click Add an action, as shown in Figure 3-42.



Figure 3-42. Add an action

 Type the keyword **sharepoint** in the search text box and then click the **SharePoint – Update item** action, as shown in Figure 3-43.



Figure 3-43. Choose an action

	Condition	on 2		•••
	Edit in advanced		√ 10000 Ad	d dynamic content 🔳 Collapse condition
If yes			X If no	
	(i)			
S Update item		· · · ·		T Add an act
*Site Address	Flow Tutorials - https://c986.sharepoint.com/s	ites/Flow		
* List Name	Expense Report	~		
*Id	ID ×			
*Id *Title				
	ID ×			
*Title	ID ×			
*Title Amount	D ID ×			
*Title Amount Status Value	D ID ×	~		

19. Go to the **Update item** action and update the parameter values shown in Figure 3-44.

Figure 3-44. The Update item action

20. Click **Next step** and then click **Add an action**. Type the keyword **approvals** in the search text box and then click the **Approvals – Start an approval** action, as shown in Figure 3-45.

If yes	
_	
Update item	
Choose an action	
1 approvals	
Connectors	See more
ন্ত্রি	
Approvals	
Triggers (0) Actions (1)	See more
Approvals - Start an approval	(i)
TELL US WHAT YOU NEED	
Help us decide which connectors and triggers to	add next with UserVoice

Figure 3-45. Update the action

21. Update the parameter values by adding the dynamic content shown in Figure 3-46.

Start an appro	wal 2	
* Approval type	Anyone from the assigned list	\sim
* Title	Review the expense report - 😰 Title ×	
* Assigned to	Director Email × ;	
Details	Link to item ×	
	Add dynam	ic content +
Item link	Add a link to the item to approve	
Item link description	Describe the link to the item	

Figure 3-46. The Start an approval action

22. Click **More** and then click **Add a condition**, as shown in Figure 3-47.

V If yes	
Update item	
Start an approval 2	
	Add a condition

Figure 3-47. Add a condition
23. Set the condition as **Start an approval 2 Response** equal to Approve, as shown in Figure 3-48.

Update item		
	\downarrow	
Start an approval 2		
	(+)	
Condition 3		
Response ×	is equal to \checkmark	Approve
Add dynamic content +		Collapse condition

Figure 3-48. Set the condition

- 24. Go to the If yes (under Condition 3) action and add an action to update the SharePoint list item. Update the parameter values by adding the dynamic content shown in Figure 3-49.
- 25. Similarly, go to the If no (under Condition 3) action and add an action to update the SharePoint list item. Update the parameter values by adding the dynamic content shown in Figure 3-49.

	Start an approval 2	1			
	Condition 3	\downarrow			
	Response ×	is equal to	↓ Approve		
	Add dynamic content Edit in advanced mode			Collapse condition	
If yes			X If no		
-					
Update item	13		Update item	4	
Update item	n 3 Filow Tutorialis - https://c086.sharepcint.com/sites/Filow	~	Update item	4 Flow Tutorials - https://c986.sharepoint.com	
* Site Address	Flow Tutorials - https://c986.sharepoint.com/sites/Flow	~	*Site Address	Flow Tutorials - https://c986.sharepoint.com	1
* Site Address * List Name	Flow Tutorials - https://c986.sharepoint.com/sites/Flow Expense Report	~	* Site Address * List Name	Flow Tutorials - https://c986.sharepoint.com Expense Report	√sites/Flow ✓
* Site Address * List Name *Id	Flow Tutorials - https://cb86.sharepoint.com/sites/Flow Expense Report D ×	~	*Site Address *List Name *Id	Flow Tutorials - https://c986.sharepoint.com Expense Report D x	√sites/Flow ✓
* Site Address * List Name * Id * Title	Flow Tutorials - https://cb86.sharepoint.com/sites/Flow Expense Report D ×	~	*Site Address *List Name *Id *Title	Flow Tutorials - https://c986.sharepoint.com Expense Report D x	√sites/Flow ✓
* Site Address * List Name * Id * Title Amount	Pion Tutoriais - http://c086.sharepoint.com/bites/Pion Expense Report Co 10 × Tride ×	~	*Site Address *List Name *3d *Title Amount	Flow Tutoria's - https://c986.sharepoint.com Expense Report 10 × Trife ×	Visites/Flow
* Site Address * List Name * Id * Title Amount Status Value	Pion Tutoriais - http://c086.sharepoint.com/bites/Pion Expense Report Co 10 × Tride ×	~	*Site Address *List Name *Id *Title Amount Status Value	Flow Tutoria's - https://c986.sharepoint.com Expense Report 10 × Trife ×	Visites/Flow

Figure 3-49. Set the condition

26. Enter a name for the flow and then click **Create Flow**, as shown in Figure 3-50.

Flow n Sequential Flow Demo	2 V Create flow	X Close
-----------------------------	-----------------	---------

Figure 3-50. Save and create the flow

27. The flow has been created successfully. Click **Done**.

28. Figure 3-51 shows the details of the newly created flow.



Figure 3-51. The details of the new flow

To test your flow, perform the following steps:

1. Navigate to the SharePoint Online Expense Report list and create a new item, as shown in Figure 3-52.

📙 Save	imes Cancel	🕲 Copy link	🌣 Customize
New iter	n		
Title *			
Expense R	Report 12345		
Amount			
100000			
Status			
Pending	with Superviso	r	
Expense Da	ate		
3/8/2018			
Supervisor			
😐 Vijai	Anand Ramali	$_{n}$ ×	
Director			
O Vijai	Anand Ramali	n_{i} ×	

Figure 3-52. Create a new item

 The supervisor will receive an approval email. Click Approve, provide comments, and then click Submit, as shown in Figure 3-53.

Approvals Powered by Microsoft Flow
Pending approval
Requested by Vijai Anand Ramalingam <u>vijalanand@C986.onmicrosoft.com</u>
Details: https://c986.sharepoint.com/sites/Flow/_layouts/15/listform.aspx?PageType=4&ListId=a3b34dd1-2ae2-
Approve Reject V
Approved
Submit

Figure 3-53. Request for approval

 The amount is greater than 10000 so the status gets updated to Pending with Director, as shown in Figure 3-54.

Expense Report				
Title \checkmark	Amount \smallsetminus	Status \lor	Expense Date \smallsetminus	+
Expense Report 12345	\$100,000.00	Pending with Director	3/8/2018	

Figure 3-54. Status updated

 The director will receive an approval email. Click Approve, provide comments, and then click Submit, as shown in Figure 3-55.

O Approvals Powered by Microsoft Flow
Pending approval
Requested by Vijai Anand Ramalingam vijaianand@C986.onmicrosoft.com
Details: https://c986.sharepoint.com/sites/Flow/_layouts/15/listform.aspx?PageType=4&ListId=a3b34dd1-2ae
Approve ^ Reject V
Approved
Submit

Figure 3-55. Request for approval

5. The status gets updated to Approved, as shown in Figure 3-56.

Expense Report				
Title \checkmark	Amount \smallsetminus	Status \smallsetminus	Expense Date \smallsetminus	+
Expense Report 12345	\$100,000.00	Approved	3/8/2018	

Figure 3-56. Status updated

Thus, in this section, you learned how to create a sequential flow.

Try It Yourself

Create a three-level approval flow when a new item is added in the SharePoint list. Hint: For a third-level approval, everyone must approve.

CHAPTER 4

The Flow Mobile App

In this chapter, you will learn how to use the mobile app to create a button and to monitor and manage a flow.

Microsoft Flow is available as a mobile app for Android, iOS, and Windows phones. Navigate to Microsoft Flow site at https://flow. microsoft.com. In the top navigation, click **Flow for Mobile**, as shown in Figure 4-1.



Figure 4-1. Flow for Mobile

Download the mobile app for Android, iOS, or Windows. You can also email yourself a download link for later, as shown in Figure 4-2.

Work less & do more, from anywhere	Create automated workflows between your favorite apps and services to get notifications, synchronize files, collect data, and more — all from the palm of your hand		
	App Store Google Play		
Not on your mobile device? Email yourself a download link for later.	Send email		

Figure 4-2. Download options

The Flow mobile app can be used for the following activities:

- **Create new flows**: Use the Flow app to easily create new automated workflows from anywhere.
- **Discover button**: Use buttons to trigger your workflows with a tap, and then share them with your team.
- **React fast:** Get push notifications to stay on top of your flows, grant approvals, monitor flow activity, and more.

Note The Android version of the app is used in this chapter; the interface on an iOS device or Windows Phone is similar.

Install, Sign In, and Manage an Account

Perform the following steps to install, sign in, and manage your account:

1. Install the mobile app by clicking **Install**, as shown in Figure 4-3.



Figure 4-3. Install the app

 Open the Flow mobile app and then click Get started, as shown in Figure 4-4.



Figure 4-4. Get started with the app

- M % af 19% 11:44 AM
 Sign in
 Sign in
 Sign in with your work, school, or personal Microsoft account
 1 vijaianand@c986.onmicrosoft.com
 2 SIGN IN
- 3. Enter an email ID and then click **SIGN IN**, as shown in Figure 4-5.

Figure 4-5. Sign in, part 1

4. Enter the password and then click **Sign in**, as shown in Figure 4-6.



Figure 4-6. Sign in, part 2

5. Click **Account** to view the account details, as shown in Figure 4-7.



Figure 4-7. Account details

Create a Button Flow from a Template

Perform the following steps to create a button flow from a template to send a push notification with your current location using the mobile app:

 Navigate to the mobile app and then click Flows. Click the + sign shown in Figure 4-8.



Figure 4-8. Create a new flow

2. Click **Create from template**, as shown in Figure 4-9.



Figure 4-9. Create from template

3. Click the **Send me a push notification with my current location** template shown in Figure 4-10.



Figure 4-10. Select the template





Figure 4-11. Use this template

5. If required, add some input or update the default values. Once done, leave the default name for the flow and then click **Create**, as shown in Figure 4-12.



Figure 4-12. Create a flow

6. You'll see a message about saving the flow (Figure 4-13).



Figure 4-13. Saving the flow

7. Once the flow is saved, click **Done**, as shown in Figure 4-14.



Figure 4-14. The flow has been created

To test your flow, perform the following steps:

 Navigate to the mobile app and then click **Buttons**. Click the **Send me a push notification with my** current location button, as shown in Figure 4-15.



Figure 4-15. Buttons



2. This button requires location access, as shown in Figure 4-16. Turn on location services.

Figure 4-16. Turn on location services

3. Allow Flow to access the device's location by clicking **Allow**, as shown in Figure 4-17.



Figure 4-17. Access the device's location

4. Go to **Activity**. You should see the new feed with the current location, as shown in Figure 4-18. You should also see a push notification with the current location.



Figure 4-18. New feed with current location

Share a Button Flow and Link with Others

Perform the following steps to share a button flow and link with others:

 Navigate to the mobile app and then click **Buttons**. Select the flow and then click the three dots in the circle (...), as shown in Figure 4-19.



Figure 4-19. Buttons



2. Click **Invite others**, as shown in Figure 4-20.

Figure 4-20. Invite others, part 1

3. Click **Invite others**, as shown in Figure 4-21.

← Button users
+ Invite others
Shared with
This button is not shared with anyone

Figure 4-21. Invite others, part 2

4. Search for people or groups and then add the people or groups. Click **Send**, as shown in Figure 4-22.



Figure 4-22. Add people or groups

5. Figure 4-23 shows that the button was shared successfully.



Figure 4-23. The button was shared successfully

6. Navigate to the mobile app and then click **Buttons**. Select the flow and then click the three dots in the circle (...), as shown in Figure 4-24.



Figure 4-24. Buttons

 Click the Share button link shown in Figure 4-25. The button link will be shared with others via Facebook, WhatsApp, Gmail, etc.



Figure 4-25. Share button link

Manage Flows Using the Mobile App

Perform the following steps to manage flows using the mobile app:

 Navigate to the mobile app and then click Flows. Click the Send me a push notification with my current location flow, as shown in Figure 4-26.



Figure 4-26. Select the flow

2. The flow details will be opened. You can enable or disable, edit, create a copy, manage users and connections, and delete the flow, as shown in Figure 4-27.



Figure 4-27. Flow management options

- Enable flow: Turn the flow on or off.
- Edit flow: Edit or update the flow. Once you're done with the updates, click **Update**, as shown in Figure 4-28.



Figure 4-28. Flow details

• **Users and Connections**: Manage the users and connections, as shown in Figures 4-29 and 4-30.



Figure 4-29. Manage users



Figure 4-30. Manage connections

• **Run history**: View all the run details of the flow, as shown in Figures 4-31 and 4-32.



Figure 4-31. Run history



Figure 4-32. Run details

• **Save as**: Create a copy of the flow. If required, update the flow name and then click **Done**, as shown in Figure 4-33.



Figure 4-33. Create a copy of the flow
CHAPTER 4 THE FLOW MOBILE APP

• **Delete flow**: Delete the flow, including the history, as shown in Figure 4-34.



Figure 4-34. Delete the flow

Try It Yourself

Create a button flow to send a predefined email that includes your full address (current location) to an Office 365 account.

CHAPTER 5

Manage Connections and Gateways

In this chapter, you will learn how to configure and manage connections and gateways.

Manage Connections

Connectors provide a way for users to connect to underlying services using their accounts in order to create automated workflows. Examples of popular services include SharePoint, Office 365 Outlook, OneDrive, Twitter, and more. There are more than 150 connectors. You will learn how to add and delete a connection.

Create a New Connection

Perform the following steps to create a new connection:

- Navigate to the Flow site at https://flow. microsoft.com.
- 2. In the top navigation, click the **Settings** icon and then click **Connections**, as shown in Figure 5-1.



Figure 5-1. Connections

3. You'll see a list of connections, as shown in Figure 5-2.



Figure 5-2. List of connections

4. Click **New connection**, as shown in Figure 5-3.



Figure 5-3. New connection

5. Enter the keyword **twitter** in the search text box and click Enter. Then click the + sign shown in Figure 5-4.



Figure 5-4. Search for the twitter keyword

6. Click **Create**, as shown in Figure 5-5.



Figure 5-5. Connect to Twitter

7. Authorize the flow to use the Twitter account, as shown in Figure 5-6.



Figure 5-6. Authorize the app

8. Figure 5-7 shows that the connection was added successfully.



Figure 5-7. New connection added

Create a Connection to SharePoint's On-Premises Data

Perform the following steps to create a connection to SharePoint's on-premises data:

 Navigate to the Flow site at https://flow. microsoft.com. 2. In the top navigation, click the **Settings** icon and then click **Connections**, as shown in Figure 5-8.



Figure 5-8. Connections

3. You'll see a list of connections, as shown in Figure 5-9.

Conne	ections	Search	۵
NAME			TYPE
٥	Approvals Approvals		Standard
₿	Ashish Bot Custom Connector Ashish Bot Custom Connector		Custom
0	vijaianand@C986.onmicrosoft.com Common Data Service Premium		Standard
f	Vijai Anand Facebook		Standard

Figure 5-9. List of connections

4. Click **New connection**, as shown in Figure 5-10.



Figure 5-10. New connection

5. Enter the keyword **SharePoint** in the search text box and click Enter. Then click the + sign shown in Figure 5-11.



Figure 5-11. Search for the SharePoint keyword

 Select the Connect using on-premises data gateway option and then select the Authentication Type as Windows, as shown in Figure 5-12.



Figure 5-12. Connection options

7. Enter the username and password, and then choose a gateway, as shown in Figure 5-13. Click Create.
(Note that installing the on-premises data gateway is covered in the upcoming "Install a Gateway" section. The username and password will be the same.)

	SharePoint Microsoft		×
	Username *		
	vijaianand@c986.onmicrosoft.com		
	Password *		
1			
-	Choose a gateway *		
	MSFlowGatewayDemo	\sim	Ö
	If you don't see a gateway, or want a now. To see recently installed gatewa		
	Install a gateway	<i>jo, reneert and no a</i>	
		Cance 2 Cre	ate

Figure 5-13. Connect to your data

8. You are now connected to SharePoint's on-premises data, as shown in Figure 5-14.



Figure 5-14. Connection added

Delete a Connection

Perform the following steps to delete a connection:

 Navigate to the Flow site at https://flow. microsoft.com. 2. Click the **Settings** icon and then click **Connections**, as shown in Figure 5-15.



Figure 5-15. Connections

3. You'll see a list of connections, as shown in Figure 5-16.

Conne	ections	Search	Q
NAME			TYPE
2	Approvals Approvals		Standard
₿	Ashish Bot Custom Connector Ashish Bot Custom Connector		Custom
0)))	vijaianand@C986.onmicrosoft.com Common Data Service 입 Premium		Standard
f	Vijai Anand Facebook		Standard

Figure 5-16. List of connections

4. Select the connection that must be deleted. Click the three dots in the upper right corner (...) and then click **Delete**, as shown in Figure 5-17.

f	Vijsi Anand Facebook		Standard	2 wk ago	0
M	anavijai@gmail.com Grai	🛕 Can't sign in. Update password 🔘	Standard	1 wk apo	Q. Auth
31	anavijai@gmail.com Google Calendar		Standard	1 wk ago	Delete

Figure 5-17. Delete a connection, part 1

5. Click **Delete** to delete the connection, as shown in Figure 5-18.

Delete this Vijai Anand connection?						
	This connection is also required for the apps or flows listed. You'll need a new connection to use them again.					
NAME		ТҮРЕ				
Ŕ	Send email when there is a new post	Flow				
Ś	Share my Tweets on Facebook	Flow				
Ø	Switch Case Demo	Flow				
Ŕ	When there is a new post on my timel	Flow	*			
		Cance 1	Delete			

Figure 5-18. Delete a connection, part 2

Install a Gateway

An on-premises data gateway allows you to establish secure connections to integrate Microsoft Flow with on-premises data sources such as SharePoint, SQL Server, Oracle, and more. If the data gateway machine is switched off, then the flow will fail. You will learn how to install an on-premises data gateway in the SharePoint 2016 on-premises virtual machine, which allows you to connect to SharePoint 2016 on-premises data.

Perform the following steps to install an on-premises data gateway:

- Connect to the SharePoint 2016 on-premises virtual machine and navigate to the Flow site at https:// flow.microsoft.com.
- 2. In the top navigation, click the **Settings** icon and then click **Gateways**, as shown in Figure 5-19.



Figure 5-19. Gateways

3. You'll see a list of gateways, as shown in Figure 5-20. Click **New gateway**.

Γ	Gateways 💿	Search Q 🕕 🕂 New gateway
	NAME ^	CONTACT INFORMATION
l	C#CornerOnPremWebDemoGateway	vijalanand@C986.onmicrosoft.com
l	C#CornerWebinarDemoGateway	vijaianand@C986.onmicrosoft.com
	MicrosoftFlowGatewayTest	vijaianand@C986.onmicrosoft.com

Figure 5-20. List of gateways

4. Download the on-premises data gateway shown in Figure 5-21 and run the .exe file.



Figure 5-21. Download and run the on-premises data gateway

5. Read the reminders and click **Next**, as shown in Figure 5-22.

C On-premises data gateway installation	? x
Reminder before you install.	
▲ The gateway works best when it is installed on a computer that is always on and not asleep. The gateway will perform more slowly on a wireless network.	
1 Next Cancel	

Figure 5-22. Reminders

6. Accept the terms and conditions, and then click **Install**, as shown in Figure 5-23.

	On-premises data gateway installation	?	×
	Getting ready to install the on-premises data gateway.		
	Install to		
	C:\Program Files\On-premises data gateway		
1	✓ I accept the <u>terms of use</u> and <u>privacy statement</u>		
	2 Install Close		

Figure 5-23. Install the data gateway

7. Enter an email address to use this gateway and click **Sign in**, as shown in Figure 5-24.

↔ On-premises da	ata gateway		1
Almost done.	5 5		
Installation was successful!			
Email address to use with this	gateway:		
vijaianand@c986.onmicro	soft.com		
Next, you need to sign in to re	gister your gateway.		
	2	Sign in	Cancel

Figure 5-24. Sign in, part 1

8. Enter a password and then click **Sign in**, as shown in Figure 5-25.



Figure 5-25. Sign in, part 2

9. Select **Register a new gateway on this computer** and click **Next**, as shown in Figure 5-26.

On-premises data gateway	?	×
You are signed in as vijaianand@C986.onmicrosoft.com and are ready to register the gateway.		
Register a new gateway on this computer.		
 Migrate, restore, or takeover an existing gateway. Move a gateway to a new computer Recover a damaged gateway Take ownership of a gateway The old gateway will be disconnected. 		
2 Next Cance	el	

Figure 5-26. Register a new gateway

10. Enter the gateway name and recovery key, and then confirm the recovery key. Click **Configure**, as shown in Figure 5-27.

🗘 On-premises data gatewa	Ŋ	?	×
You are signed in as vijaianand@C986.on the gateway.	microsoft.com and are ready to register		
New on-premises data gateway name			1
MSFlowGatewayDemo]
Recovery key (8 character minimum)			
	ad a sub-transfer and the surface of the		
 This key is needed to restore the gateway a Confirm recovery key 	no can't be changed. Record it in a sate place.		
Learn more about gateway clusters We'll use this region to connect the gateway t	o cloud services: East US 2 Change Region		
····· , ·			
	<< 2 Configur	e	

Figure 5-27. Configure the data gateway

11. The gateway should be online and ready to use, as shown in Figure 5-28. Click **Close**.



Figure 5-28. Gateway installed

12. The Windows service should be running, as shown in Figure 5-29.

Services (Local)					
Select an item to view its description.	Name	Description	Status	Startup Type	Log On As
	A Network List Service	Identifies th	Running	Manual	Local Service
	Characteristics Awareness	Collects an	Running	Automatic	Network Service
1	Characteristics Network Setup Service	The Networ		Manual (Trig	Local System
1	Characteristics Store Interface Service	This service	Running	Automatic	Local Service
	Q. Offline Files	The Offline		Disabled	Local System
	On-premises data gateway service	The on-pre	Running	Automatic	NT SERVICE\PBIEgwService
	C Optimize drives	Helps the c		Manual	Local System

Figure 5-29. The Windows service

13. The gateway was created successfully, as shown in Figure 5-30.

Gateways 💿	Search
NAME ^	CONTACT INFORMATION
C#CornerOnPremWebDemoGateway	vijaianand@C986.onmicrosoft.com
C#CornerWebinarDemoGateway	vijaianand@C986.onmicrosoft.com
MicrosoftFlowGatewayTest	vijaianand@C986.onmicrosoft.com
MSFlowGatewayDemo	vijaianand@C986.onmicrosoft.com

Figure 5-30. Creation success

Try It Yourself

Create a new connection to connect with an on-premises SQL Server and then create a flow to update a row in SQL when an item is modified in a SharePoint list.

CHAPTER 6

Flow Administration

In this chapter, you will learn

- How to manage flows
- How the Admin Center works
- How to manage environments and data policies

Manage Flows

In this section, you will learn how to manage flows via a variety of tasks, such as turning a flow on or off, editing, deleting, troubleshooting, and more.

Turn a Flow On or Off

Perform the following steps to turn a flow on or off:

- Navigate to the Flow site at https://flow. microsoft.com.
- In the top navigation, click My flows and then select a flow that must be turned off. Slide the button to Off, as shown in Figure 6-1.

My flows Approvals Templates O	Connectors Learny Search templates		
2 My flows	Team flows		+ Create from blank 🔲 Create from template
	Name	Last modified	
3 0 0	Sequential Flow Demo	1 minute ago	
C) (1) (2)	Start an approval for new file to move it to a different folder	14 hours ago	 on <i>V</i>

Figure 6-1. Turn off a flow

3. Similarly, turn on the flow as shown in Figure 6-2.

My flows	Approvals	Templates	Connectors	Learn~	Search templates	8	2			
	2	My flows	Team flo	ows					+ Create from blank	Create from
			Name					Last modified		
		00 (12 💿	Sequential F	Flow Demo				1 minute ago	3	(I) off

Figure 6-2. Turn on a flow

Edit a Flow

Perform the following steps to edit a flow:

- Navigate to the Flow site at https://flow. microsoft.com.
- 2. In the top navigation, click **My flows** and then select a flow that must be updated. Click the **Edit** icon shown in Figure 6-3.

1 My flows A	pprovals	Templates 0	Connectors	Learn√	Search templates	م			
	2	My flows	Team fl	ows				+ Create from blank	Create from temp
			Name				Last modified		
		3 3 3	Sequential	Flow Demo			1 minute ago		3

Figure 6-3. Edit a flow

3. Once you're done with the changes, click **Update flow**, as shown in Figure 6-4.



Figure 6-4. Update a flow

4. To close, click **Done**, as shown in Figure 6-5.



Figure 6-5. Flow updated

Create a Copy of a Flow

Perform the following steps to create a copy of a flow:

- Navigate to the Flow site at https://flow. microsoft.com.
- In the top navigation, click My flows and then select a flow that must be copied. Click the three dots (...) to see more options and then click Save as, as shown in Figure 6-6.



Figure 6-6. Copy the flow

3. If required, rename it first and then click **Save**, as shown in Figure 6-7.



Figure 6-7. Save the copy

 A copy of the flow was created, as shown in Figure 6-8. By default, it will be turned off.



Figure 6-8. Save the copy

Delete a Flow

Perform the following steps to delete a flow:

- 1. Navigate to the Flow site at https://flow.microsoft.com.
- In the top navigation, click My flows and then select a flow that must be deleted. Click the three dots (...) to see more options and then click Delete, as shown in Figure 6-9.

	My flows	Team flows		+ Create from blank	E Create from template
		Name	Last modified		
C	1) (1)	Copy of - Sequential Flow Demo	1 second ago		● off 2 ····
C	3) (1)	Sequential Flow Demo	7 minutes ago		See analytics
C	€ ⊘ €	Start an approval for new file to move it to a different folder	14 hours ago		T Export > 3 ■ Delete

Figure 6-9. Delete a flow

3. Confirm that the flow must be deleted and then click **Delete**, as shown in Figure 6-10.



Figure 6-10. Confirm deletion

Create Team Flows

Perform the following steps to create team flows:

- Navigate to the Flow site at https://flow. microsoft.com.
- 2. In the top navigation, click **My flows** and then select a flow that must be created as a team flow. Click the **People** icon shown in Figure 6-11.



Figure 6-11. Invite another owner

3. Enter names, email addresses, or user groups to add other owners, as shown in Figure 6-12. Adding other owners allows them to edit, update, and delete this flow. All owners can also access the run history and add or remove other owners.



Figure 6-12. Add other owners

4. Navigate to **My flows**, click **Team flows**, and you'll see all of the team flows, as shown in Figure 6-13.



Figure 6-13. Team flows

Submit a Flow as a Template

Perform the following steps to submit a flow as a template:

- Navigate to the Flow site at https://flow. microsoft.com.
- 2. In the top navigation, click **My flows** and then select a flow that you want published as a template. Click the three dots (...) to see more options and then click **Submit as template**, as shown in Figure 6-14.



Figure 6-14. Submit as a template

 Fill in all of the required details and then click Submit, as shown in Figure 6-15. The Microsoft Flow team will verify; once the team approves your template, it will appear in the gallery of templates for Microsoft Flow.

		_
Submit as template		×
Template title*		
Send reminder email for over	due tasks in SharePoint]
Template description*		
Send reminder emails to Of in SharePoint Online.	fice 365 Outlook for overdue tasks	
Biggest benefit		
For example, it helps organ	ize your inbox	
Number of users		1
Is this flow for one person of	or a group?	
Number of users		
Is this flow for one person	or a group?	
Number of runs		
How often will this flow run	on average?	
Categories		
Approval	Button	
Data collection	Email	
Events and calendar	Mobile	
Notifications	Productivity	
Social media	Sync	
Custom categories		
Don't see a category that fits	s? Add your own	
		-
	Cancel Submit	

Figure 6-15. The Submit as template page

Export a Flow

Perform the following steps to export a flow as a package (.zip) file:

- Navigate to the Flow site at https://flow. microsoft.com.
- In the top navigation, click My flows and then select a flow that has to be exported. Click the three dots (...) to see more options and then click Export ➤ Package (.zip), as shown in Figure 6-16.

My flows	Team flows		🕂 Create from blank Ei Create from template 🛓 Impo
	Name	Last modified	
0 8	Send reminder email for overdue tasks in SharePoint	11 seconds ago	
ा दि	Start approval when a new item is added645643	2 days ago	Save As
(A) (1)	Copy files between OneDrive for Business and SharePoint	2 days ago	Sub to a stemplate Export
\$ >	Start an approval for new file to move it to a different folder	2 days ago	3 Package (zip) 5 Logic Apps template (json) 2elete

Figure 6-16. Export as a package (.zip)

3. Enter the package details, as shown in Figure 6-17.

Package details Created by Vijai Anand Ramalingam on 03/02/2018
Name *
Send reminder email for overdue tasks in SharePoint
Environment
C (default)
Description
Send reminder email for overdue tasks in SharePoint Package

Figure 6-17. Package details

 Go to the Import setup page. By default Update will be selected. Click Update and then select Create as new. Click Save, as shown in Figure 6-18.



Figure 6-18. Update the import setup

5. If required, add version notes and then click **Export**, as shown in Figure 6-19. Save the package (.zip) file in the local file system.

Review Package Content									
Choose your export options and add comments to provide instruction or add version notes.									
NAME	RESOURCE TYPE	IMPORT SETUP	ACTION						
Send reminder email for overdue tasks in SharePoint	Flow	Create as new							
Related resources									
NAME	RESOURCE TYPE	IMPORT SETUP	ACTION						
vijalanand@C986.onmicrosoft.com	SharePoint Connection	Select during import	D D						
		2	Export Cancel						

Figure 6-19. Export the flow

Import a Flow

Microsoft Flow allows you to import a flow as a package. This can be done when the flow must be copied or moved from one environment to another. Perform the following steps to import a flow:

- Navigate to the Flow site at https://flow. microsoft.com.
- 2. Select the environment where the package should be imported, as shown in Figure 6-20.



Figure 6-20. Select the environment

3. In the top navigation, click **My flows** and then click **Import**, as shown in Figure 6-21.

My flows	Approvals	Templates	Connectors	Learn∨	Search templates	م			:	Q	¥	0
•	My flow	Team	flows				+ Create from blank	Create	from te	12		Import

Figure 6-21. Import

 Select the package (.zip) from the local file system by clicking the **Upload** button. Go to **Import Setup**, click **Select during import**, and then select the connection that has to be imported for this package. Click **Save**, as shown in Figure 6-22.

	Import setup	×
	Setup	
	Select during import	×
	The package creator chose this se mport here.	tup. You can make changes to the i
	The connection or custom API alree must be selected when this package	,
	+ Create new	🕐 Refresh list
	NAME	RESOURCE TYPE
IMPORT SETUP	vijaianand@C986.onmicros oft.com	2 wk ago 🗸
Create as new		
IMPORT SETUP		
1 Select during import		
	3	Save Cancel

Figure 6-22. Import setup

Import package				
De duces details				
Package details Created by Vijai Anand Ramalingam on 03/02/2018				
Name				
Name Send reminder email for overdue tasks in SharePoint				
send reminder email for overdue tasks in sharePoint				
Environment				
C (default)				
Description				
Send reminder email for overdue tasks in SharePoint Package				
Review Package Content				
Choose your import options.				
NAME	RESOURCE TYPE	IMPORT SETUP	ACTION	
Send reminder email for overdue tasks in Share Point	Flow	Create as new	P	
Related resources				
NAME	RESOURCE TYPE	IMPORT SETUP	ACTION	
		Select during import		
Vijalanand@C986.onmicrosoft.com	SharePoint Connection	vijaianand@C986.onmicrosoft.com	P	
				Const
			Import	Cancel

5. Click **Import**, as shown in Figure 6-23.

Figure 6-23. Import the package
6. All package resources were successfully imported, as shown in Figure 6-24.

Send reminder email for overdue tasks in S	harePoint		
All package resources were successfully imported.			
The flow has been created successfully. Run the flow to m	ake sure its working. Open flow		
Package details Created by Vijai Anand Ramalingam on 03/02/2018			
Name			
Send reminder email for overdue tasks in SharePoint			
Environment			
C (default)			
Description			
Send reminder email for overdue tasks in SharePoint Packa	ge		
Review Package Content			
Choose your import options.			
NAME	RESOURCE TYPE	IMPORT SETUP	ACTION
Send reminder email for overdue tasks in SharePoint	Flow	Create as new	Ð
Related resources			
NAME	RESOURCE TYPE	IMPORT SETUP	ACTION
vijaianand@C986.onmicrosoft.com	SharePoint Connection	Select during import	Ð

Figure 6-24. The package was successfully imported

7. Navigate to **My flows** and you'll see the imported flow, as shown in Figure 6-25.



Figure 6-25. Imported flow

Monitor a Flow

Perform the following steps to monitor or troubleshoot a flow:

- Navigate to the Flow site at https://flow. microsoft.com.
- 2. In the top navigation, click **My Flows** and then click the flow, as shown in Figure 6-26.



Figure 6-26. Select the flow

3. You'll see flow details such as run history, connections, owners, and more, as shown in Figure 6-27.

← Send reminder email for ow	erdue tasks in SharePoint			🖉 Edit flow 🛛 … More	This flow is 🚺 On
Send reminder email for overdue tasks in SharePoint Send reminder emails to Office 365 Outlook for overdue tasks in SharePoint Online. Edit description			CONNECTIONS SharePoint Vijaianand@CS	See all >	
See analytics				OWNERS Vijai Anand Rama vijaianand@C986.	See all > alingam onmicrosoft.co
RUN HISTORY			See all 🖒	R, Add another own	er
Succeeded	1 hour ago	0 seconds	>		
Failed	1 hour ago	3 seconds	>		
Failed	1 hour ago	4 seconds	>		
Succeeded	1 week ago	2 seconds	\rightarrow		
Succeeded	1 week ago	2 seconds	>		
Succeeded	1 week ago	1 second	\rightarrow		
Succeeded	1 week ago	2 seconds	>		
Failed	1 week ago	0 seconds	>		
Failed	1 week ago	0 seconds	>		
Failed	1 week ago	1 second	>		

Figure 6-27. Flow details

4. Click one of the items (last run) in the run history, as shown in Figure 6-28.

RUN HISTORY			See all >
Succeeded	1 hour ago	0 seconds	>
Failed	1 hour ago	3 seconds	>
Failed	1 hour ago	4 seconds	>

Figure 6-28. Run history

5. Review the inputs and outputs for each step, as shown in Figure 6-29.

	\vee
Get items	
INPUTS	
Site Address	
Flow Tutorials - https://c986.share	point.com/sites/Flow
List Name	
Tasks	
Show more 🗠	
OUTPUTS	
Status code	
200	
Headers	
Кеу	Value
Pragma	no-cache
Vary	Accept-Encoding
x-ms-request-id	20b64f9e-b06b-5000-6d7a-9
OData-Version	4.0
Body	
1	

Figure 6-29. Inputs and outputs

6. Click the flow run that failed, as shown in Figure 6-30.

1	RUN HISTORY		
	Succeeded	1 hour ago	0 seconds
	Failed	1 hour ago	3 seconds
	Failed	1 hour ago	4 seconds

Figure 6-30. Failed run

7. You'll see a failure summary, shown in Figure 6-31, which helps to troubleshoot the issue.

due tasks in SharePoint	Resubmit 🦉 Edit	t flow 🕐 Help
Recurrence	05 05 05 05 05	Failure summary Support Viatiour support gage to see if there are any known service outages that are impacting your flow. Action 'Send an email' failed Ficit if this error was temporary, you can try resubmitting the run and the issue may have been resolved. Error type This action failed because of an error in the connector.

Figure 6-31. Failure summary

Manage Regional Settings

Perform the following steps to manage the language and regional format:

 Navigate to the Flow site at https://flow. microsoft.com. 2. In the top navigation, click the **Settings** icon and then click **Settings**, as shown in Figure 6-32.

	ک التحال Vijai Anand Ramalingam C (default)
	Flows
	Connections
	Gateways
-	Custom Connectors
2	Settings
	Admin Center

Figure 6-32. Settings

3. Choose the **display language** and **regional format** from the drop-down and then click **Save**, as shown in Figure 6-33.

	Settings			×
	Region			
	Language			
	Choose display la	nguage.		
1	English		\sim	
	Regional forma	t (locale)		
	The regional form formats for your	nat you choose will determine the date and time anguage.		
2	United States		\sim	
3	Save	Cancel		

Figure 6-33. Update the settings

Admin Center Overview

The Admin Center allows the tenant and environment administrators to manage the environments and data policies.

Create a New Environment

Perform the following steps to create a new environment:

 Navigate to the Flow site at https://flow. microsoft.com. 2. In the top navigation, click the **Settings** icon and then click **Admin Center**, as shown in Figure 6-34.

	1	Vijai Anand Ramalingam C (default)
	Flows	
	Conne	ctions
	Gatewa	ays
	Custon	n Connectors
	Setting	IS
2	Admin	Center

Figure 6-34. Admin Center

3. You'll see a list of environments, as shown in Figure 6-35. Click **New environment**.

Elow Admin cer	nter			? 🛞
-	Environments	Search	0	New environment
Environments	NWE A	REGION	CREATED BY	CREATED
② Data policies	C (default)	United States	SYSTEM	10/11/2016
Se Data integration	Test	United States	Vijai Anand Ramalingam	02/13/2018
Tenant v				

Figure 6-35. New environment

4. Enter the name, select a region, and then click **Create environment**, as shown in Figure 6-36.

	New environment
	Create new environments for app and flow development and to maintain separate databases. Learn more
	Environment name
1	Finance
	Region ?
2	United States (default)
	Can't be changed once your environment is created.
	Cance 3 Create environment

Figure 6-36. Create environment

5. The new environment is shown in Figure 6-37.

NAME A	REGION	CREATED BY
C (default)	United States	SYSTEM
Finance	United States	Vijai Anand Ramalingam

Figure 6-37. New environment created

Manage Environments in the Admin Center

Perform the following steps to manage environments:

 Navigate to the Flow site at https://flow. microsoft.com. 2. In the top navigation, click the **Settings** icon and then click **Admin Center**, as shown in Figure 6-38.

	1	Vijai Anand Ramalingam C (default)
	Flows	
	Conne	ctions
	Gatewa	ays
	Custon	n Connectors
	Setting	IS
2	Admin	Center

Figure 6-38. Admin Center

3. You'll see a list of environments, as shown in Figure 6-39. Click any environment to view the details.



Figure 6-39. Select the environment

• **Details**: Shows all details specific to the environment, as shown in Figure 6-40.

← Finance
Details • Security • Resources • Database
Name
Finance
Created by Vijai Anand Ramalingam
Created
3/4/2018 2:55:03 AM
Region United States

Figure 6-40. Environment details

• **Security**: Allows you to manage security roles such as Admin and Maker, as shown in Figure 6-41.

← ^{Finance}		til) Celete
Details - Security -	Resources - Database	
Environment roles	Environment roles	
	NAME ^	DESCRIPTION
	Environment Admin	An environment admin has the ability to perform all administrative actions on an environment.
	Environment Maker	An environment maker has the ability to create new resources in an environment.

Figure 6-41. Environment roles

4. In order to add a new admin, click **Environment Admin** and search for name, email addresses, or user groups. Add the user and then click **Save**, as shown in Figure 6-42.

← Environment Admin	Search		Q
Details • Users			
Enter names, email addresses, or user groups + Add everyone in my org		b.	
Name	Email		
Panjith Kunjayi	RanjithK@C986.onmicrosofLcom	a	×
(R) Vijai Anand Ramalingam	vijaianand@C986.onmicrosoft.co	um	
		Cancer 3	Save

Figure 6-42. Add a new admin

• **Resources**: Shows all flows and apps created for this environment, as shown in Figure 6-43.

← ^{Finance}		
Details • Security •	Resources • Database	
Flows		There are no apps yet. Please create a new app first.

Figure 6-43. Environment resources

• **Database**: Shows all databases for this specific environment, as shown in Figure 6-44.



Figure 6-44. Environment database

 Click **Delete** to delete the environment, as shown in Figure 6-45. Note that if you delete the environment, all flows within that environment will also be deleted. This applies to any items you created in that environment, including connections, gateways, and more.



Figure 6-45. Delete the environment

Create a New Data Loss Prevention Policy

Microsoft Flow allows you to create policies that define how data can be protected or shared. Perform the following steps to create a new data loss prevention policy:

 Navigate to the Flow site at https://flow. microsoft.com.

Finance

2. In the top navigation, click the **Settings** icon and then click **Admin Center**, as shown in Figure 6-46.

	1	Vijai Anand Ramalingam C (default)
	Flows	
	Conne	ctions
	Gatewa	ays
	Custon	n Connectors
	Setting	JS
2	Admin	Center

Figure 6-46. Admin Center

 In the left navigation, click **Data policies**. You'll see a list of created data policies, as shown in Figure 6-47. Click **New Policy**.

Γ	ш	Flow Admin c	ente	r							? 🛞
				Data I	oss prevention polic	ies		Search			2 New policy
	θ	Environments		NAME		ENVIRONMENTS	CREATED BY		CREATED	TYPE	
k		Data policies			No policies	UNIVERSITY	CICALLO IN		CREATED	1171	
		Data integration									

Figure 6-47. Create a new policy

4. Choose the environments relevant to this data policy and click **Continue**, as shown in Figure 6-48.



Figure 6-48. Choose environments

5. Based on the requirements, add connectors to Business data only and No business data allowed, as shown in Figure 6-49. Users will be prevented from creating flows and apps that combine connectors from the Business data only and No business data allowed data groups. **Note** If a user creates a flow that combines connectors, the flow will be suspended due to a conflict with the data loss prevention policy. For example, if a user creates a flow that shares data between SharePoint (which is in the **Business data only** data group) and Facebook (which is in the **No business data allowed** data group), the flow will be suspended.

Also, when you add a service to one group, it will automatically be removed from the other group. For example, if the Twitter service is added to the **No business data allowed** data group, then it will be automatically removed from the **Business data only** data group.

Data Policy Name	e Polic	y 02:57:42 03-	04-2018						✓ Save Policy	× Close
Environments •	Data groups									
Categorize these con from the "Business da					iess data allowed"	. Users will be prev	rented from creat	ting flows and app	s that combine con	nectors
Business data on	ıly									
+ Add	OneDrive for Business									
No business data	a allowed (Defa	ault)								
+ Add	SharePoint	MSN Weather	Dynamics 365	Salesforce	OneDrive	SQL Server	Dropbox	10to8 Appointment Scheduling	Azure Container Instance	

Figure 6-49. Data groups

6. Figure 6-50 shows the new data loss prevention policy.

Data loss prevention policies						۹	+	New policy
NAME A	ENVIRONMENTS	CREATED BY		CREATED	TYPE			
Policy 02:57:42 03-04-2018	All environments	Vijai Anand Rar	nalingarn	03/04/20	Tenant		Ø	Î

Figure 6-50. New policy

7. Navigate to **Data Policies** and select the **Edit** icon to update the policy or the **Delete** icon to delete the policy, as shown in Figure 6-51.

Data loss prevention policies	Search			۹	+	New policy		
NAME ^	ENVIRONMENTS	CREATED BY		CREATED	TYPE			
Policy 02:57:42 03-04-2018	All environments	Vijai Anand Rama	alingam	03/04/20	Tenant		Ø	Î

Figure 6-51. Update or delete the policy

Try It Yourself

- Create a new environment for HR and provide access to a few HR users.
- Export any flow from the default environment and import the flow in the newly created environment for HR.
- Add two or more administrators to the imported flow and turn on the flow.
- Execute and monitor the imported flow.
- Turn off the flow in the default environment.

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