

Getting Started with Microsoft Flow

Lab Time: 60 minutes

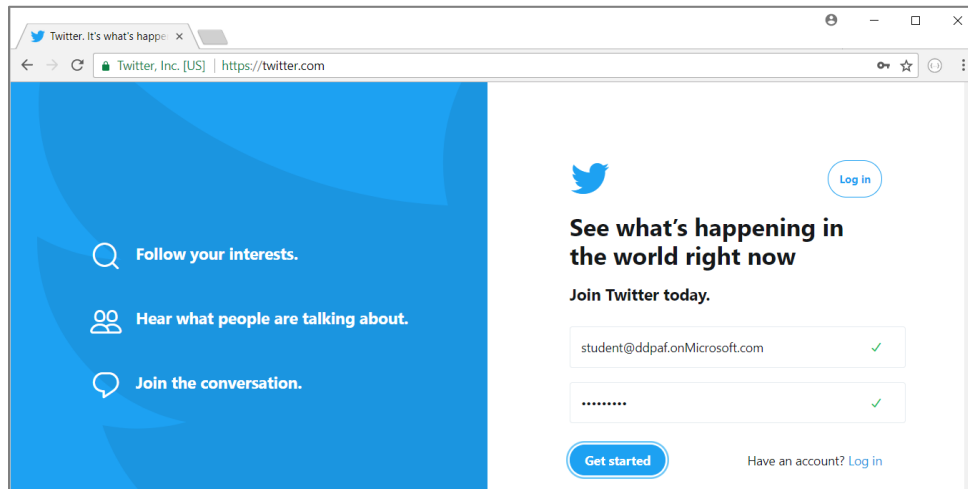
Lab Folder: C:\Student\Modules\04_DesigningFlows\Lab

Lab Overview: In this lab, you will begin to work with Microsoft Flow. You will start by creating a new Twitter account for testing purposes. After that, you will build a flow that monitors Twitter for incoming tweets containing a specific hashtag.

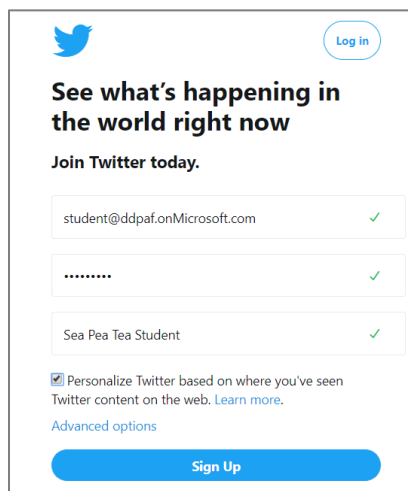
Exercise 1: Create a New Twitter Account for Testing Purposes

In this lab and in later labs, you will require a Twitter account to create Flows that are triggered by tweets of a specific keyword. While you might already have your own personal Twitter account, you likely want to create a new Twitter account so you can sound out test tweets without having them come from your personal account. In this exercise, you will create a new Twitter account using the email address of your trial Office 365 account.

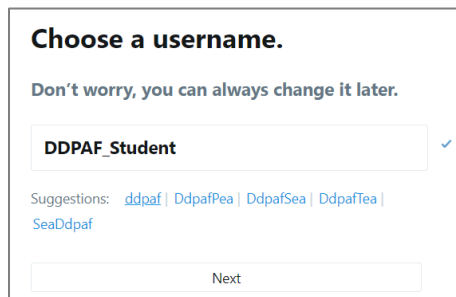
1. Navigate to <https://twitter.com>.
2. Sign up for a new twitter account using the email address of your Office 365 trial account.
 - a) Under the **Join Twitter today** message, enter your Office 365 trial account email address
 - b) Enter a password you will remember.
 - c) Click the **Get started** button to begin the process of creating a new Twitter account.



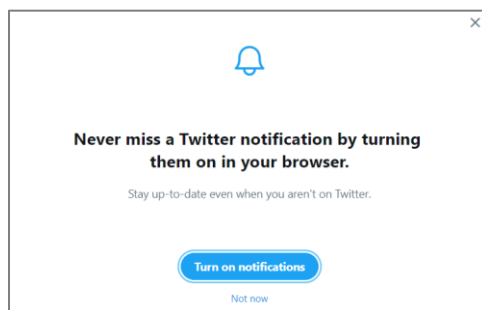
- d) Enter a name (*you can make up something fun*) and click the **Sign up** button.



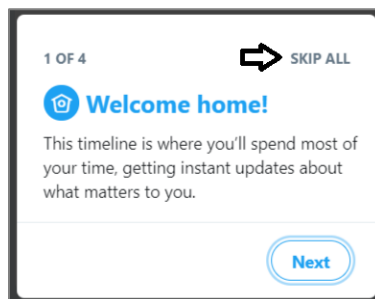
- e) On the page that prompts you for a phone number, click **Skip** to continue.
- f) On the **Choose a username** page, enter a user name that is unique.



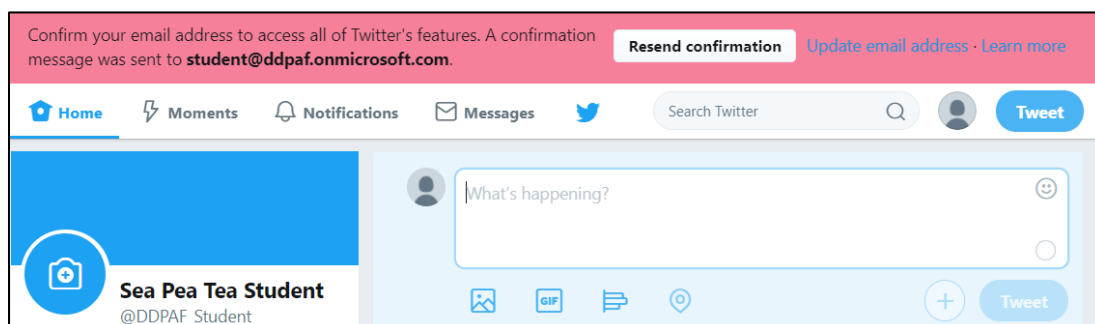
- g) On the page with the caption **What are you interested in?**, click **Continue**.
- h) On the page with the caption **Want to find friends and see who they follow?**, click **No Thanks**.
- i) On the page which prompts you about Twitter notifications, click the **Not now** link at the bottom.



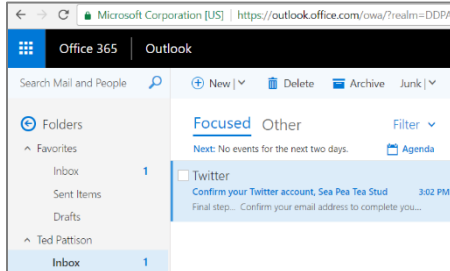
- j) On the **Welcome home!** page, click **SKIP ALL**.



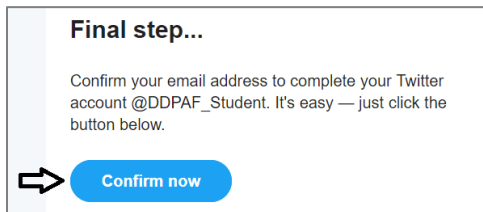
- k) You have now created the new Twitter account. However, you will notice that your new Twitter account is not yet ready for use because you must first respond to the confirmation email that has been sent to your Office 365 trial account.



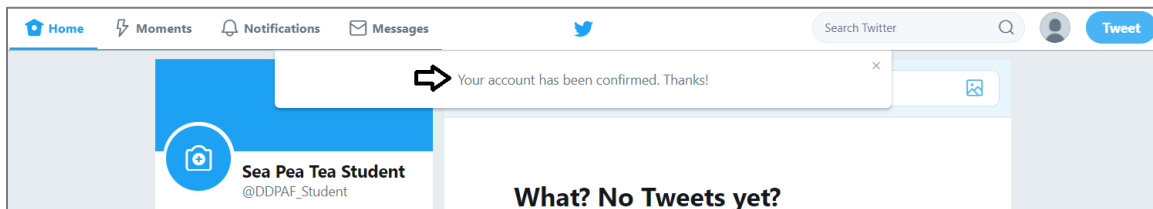
3. Respond to the confirmation email sent by Twitter to activate your new Twitter account.
 - a) Navigate to the Outlook inbox for your Office 365 trial account at <https://outlook.office.com>.
 - b) Sign in using your Office 365 trial account.
 - c) Locate and open the confirmation email message sent to you by Twitter.



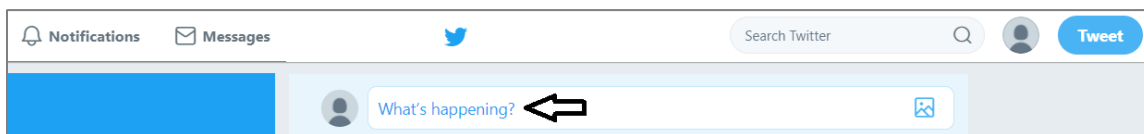
- d) Inside the body of the confirmation email, locate and click on the Confirm now button.



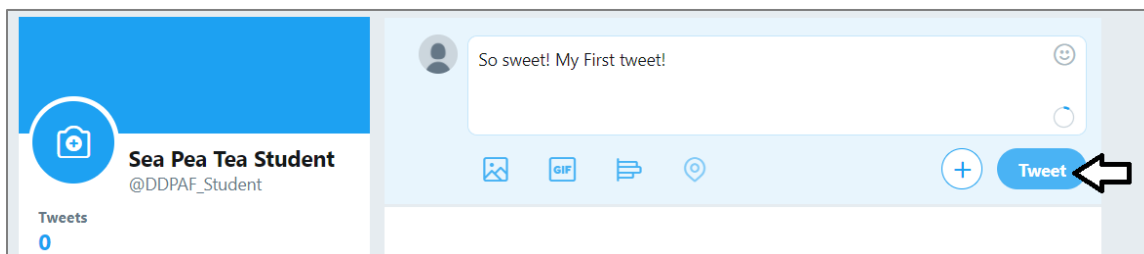
- e) You should be redirected to Twitter and you should also see a message indicating your account has been confirmed.



4. Send out your first tweet.
 - a) Locate the **What's happening** text input control.



- b) Place your cursor inside the **What's happening** text input control and type a simple message.
 - c) Click the **Tweet** button to send out a new tweet with your message.



- d) You should be able to verify that your tweet has been sent.



- e) This step is optional but it might be more fun if you upload your photo (or some other photo) for your new Twitter account.



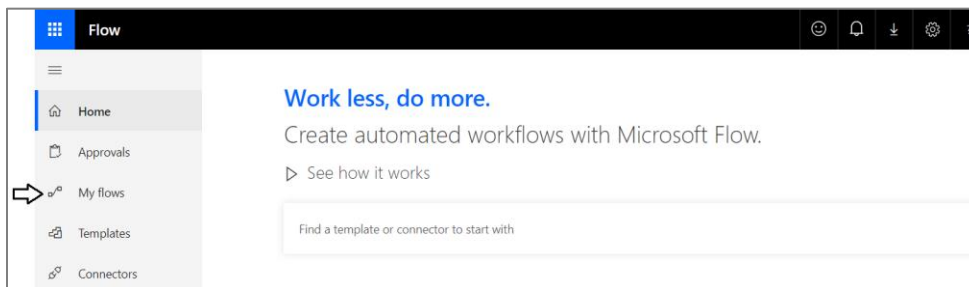
Exercise 2: Create a Flow to Track Twitter Data in an Excel Workbook

In this exercise, you will use one of the out-of-the-box templates to create a new flow that will send you an email whenever someone sends a tweet containing the hashtag **#PowerApps**.

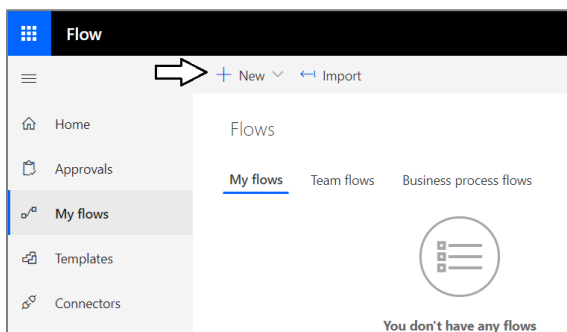
1. Sign in to Microsoft Flow.
 - a) Navigate to <http://flow.microsoft.com>.
 - b) Sign in using your Office 365 trial account.

Once you sign in, the actual URL will be localized as in the case of <https://us.flow.microsoft.com/en-us/>.

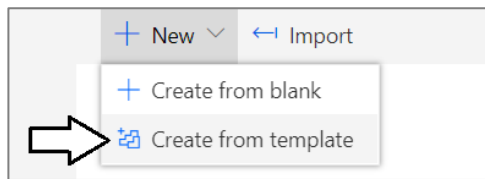
2. Create a new flow using a template.
 - a) Click on the **My flows** link.



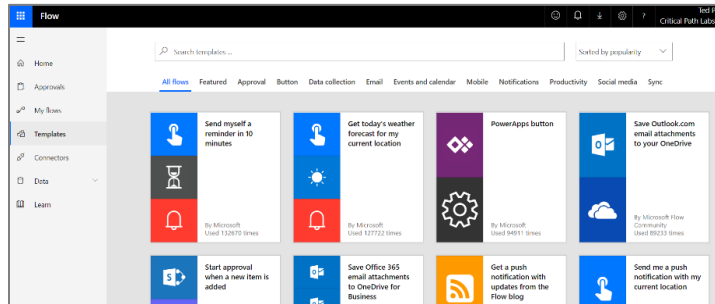
- b) If you haven't created any flows yet, you should see a message prompting you to **Create your first flow**.



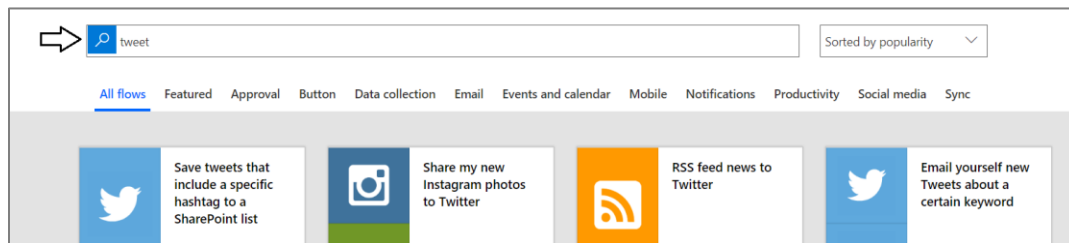
- c) Click the **Create from template** link to begin the process of creating a new flow.



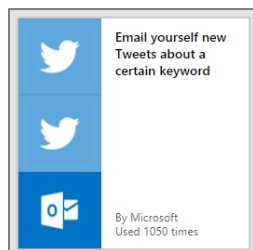
- d) You should now see a page containing templates.



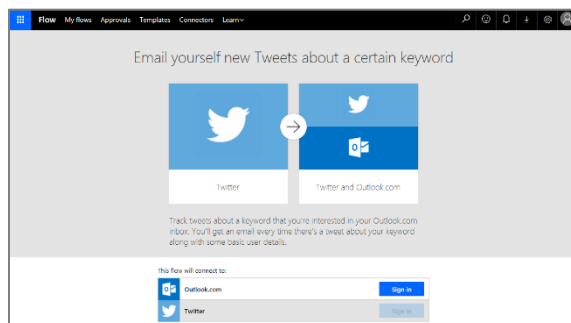
- e) Enter the word "tweet" into the search box and then click the button with the search icon.



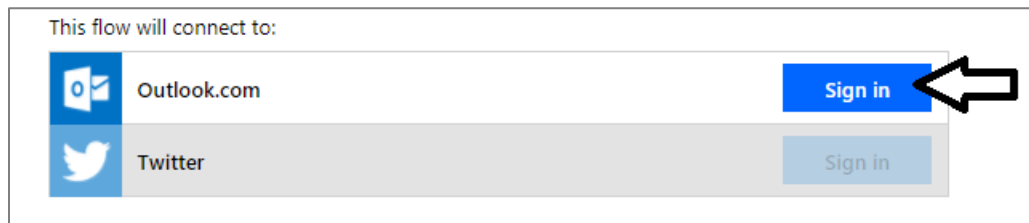
- f) Locate and click the **Email yourself new Tweets about a certain keyword** template.



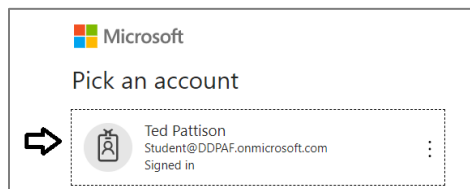
- g) You should now see a page that allows you to log into each of the connectors your flow will be using.



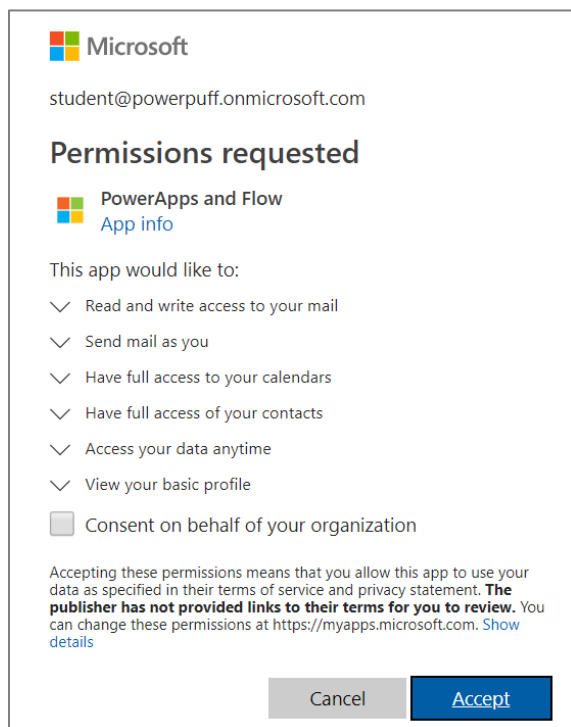
- h) Click the **Sign in** button for **Outlook.com**.



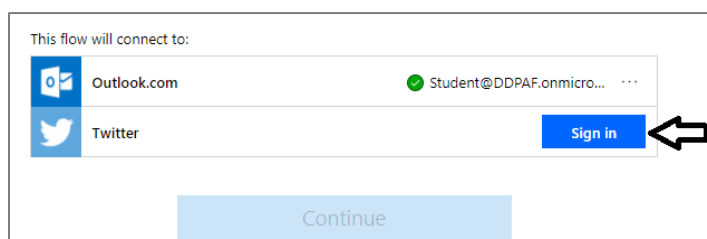
- i) Sign in with your Office 365 trial account.



- j) You should be prompted to grant permissions to the new flow. Click the **Accept** button to grant these permissions.



- k) Click the **Sign in** button for Twitter.



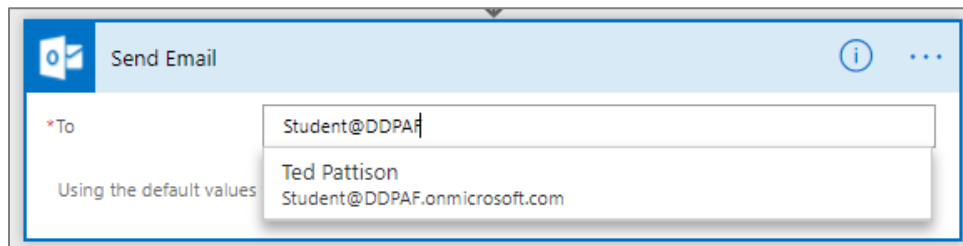
- l) On the **Authorize** page, enter your Twitter user account screen name and password. Then click the **Authorize app** button.

- m) Once you have configured permissions, click the **Continue** button.

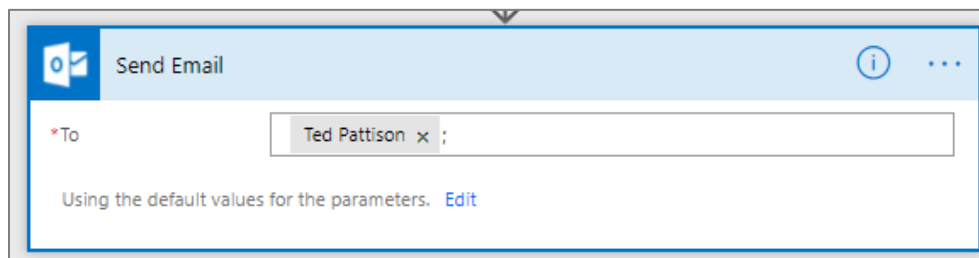
- n) You should now see your new flow in the Flow Designer.

- o) In the **When a new tweet appears** trigger, enter a text value of **#PowerApps** in the **Search text** input control.

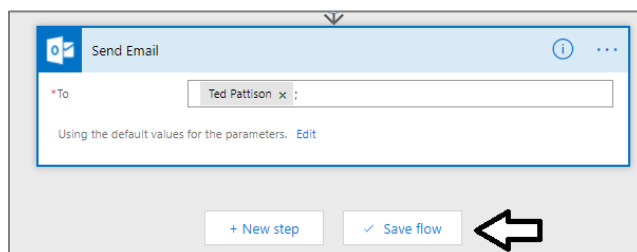
- p) In the **Send email** action, enter the email address for your Office 365 trial account.



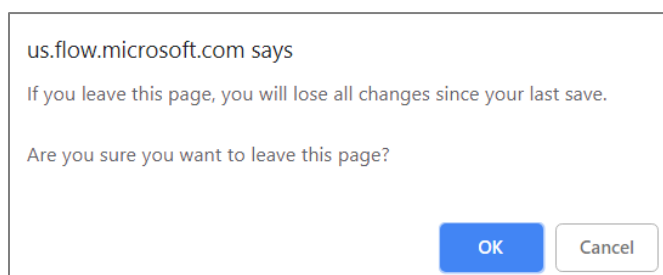
- q) Once you add your email address, the Flow Designer should resolve it to the display name of your Office 365 user account.



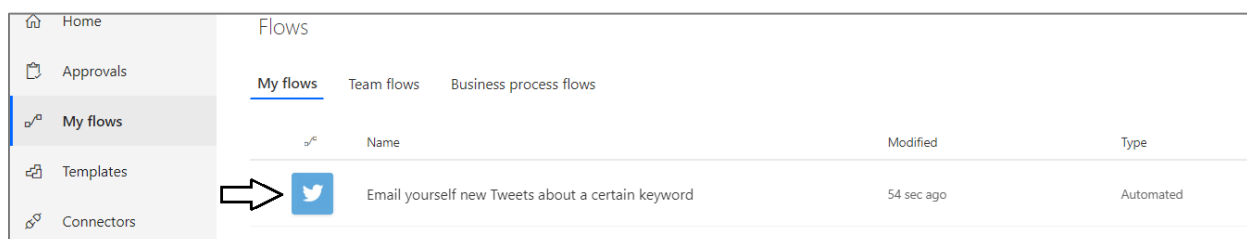
- r) Click the **Save Flow** button to save your work.



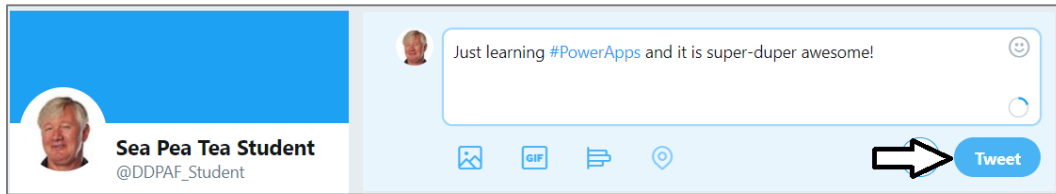
- s) Click on the **My flows** link.



- t) You should see your new flow in the list of your flows.

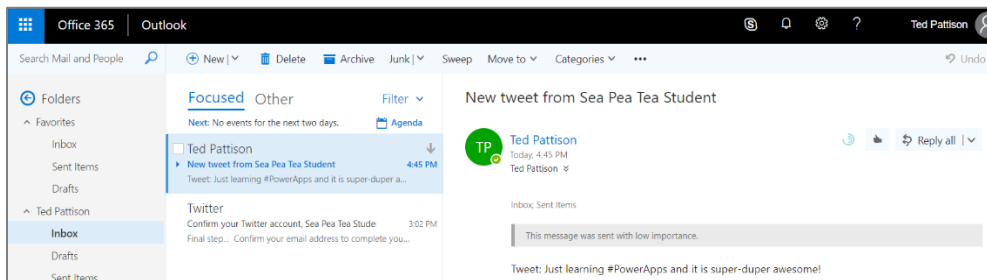


3. Send a tweet with the #PowerApps hashtag.
 - a) Return to Twitter.com inside the browser.
 - b) Enter a new message containing the hashtag **#PowerApps** and click the **Tweet** button to send it.



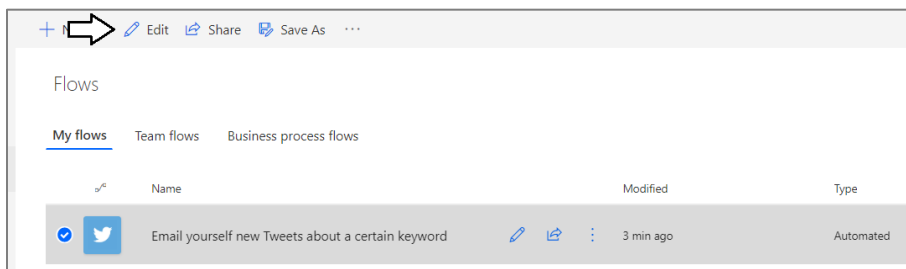
It often takes 5 minutes or so before this flow will start and email you messages with your hashtag. In some cases it could take as many as 15-20 minutes before it starts working correctly.

4. Check your email.
 - a) Return to the Outlook inbox for your Office 365 user account.
 - b) Confirm that you received an email about the new tweet containing the **#PowerApps** hashtag.

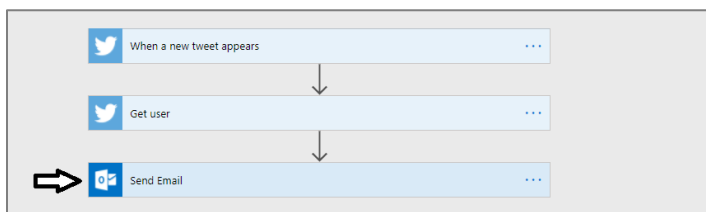


Note that your Office 365 trial user account is the sender of the message.

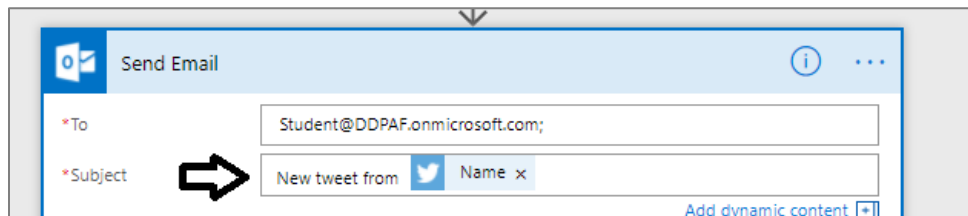
5. Make an edit to the flow that you just created.
 - a) Return to the **My flows** list and select the flow named **Email yourself new Tweets about a certain keyword**.
 - b) Click the **Edit** button in the ribbon to open the flow in edit mode.



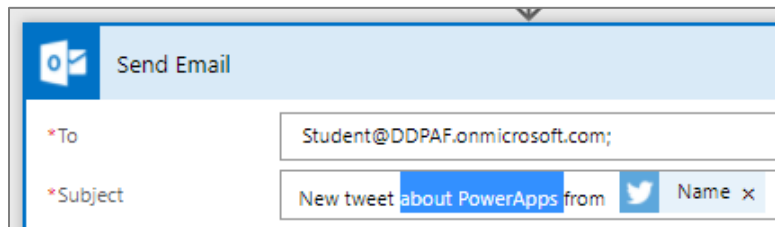
- c) Click on the header for the **Send Email** action to open it up for editing.



- d) Locate the text input control with the email **Subject**.



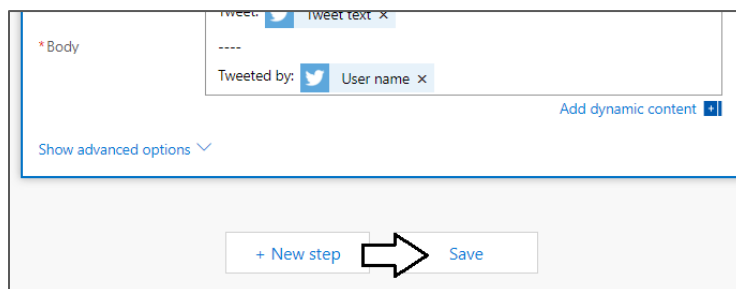
- e) Update the **Subject** value by adding the text **about PowerApps** as shown in the following screenshot.



- f) Update the email Body by simplifying it as shown in the following screenshot.

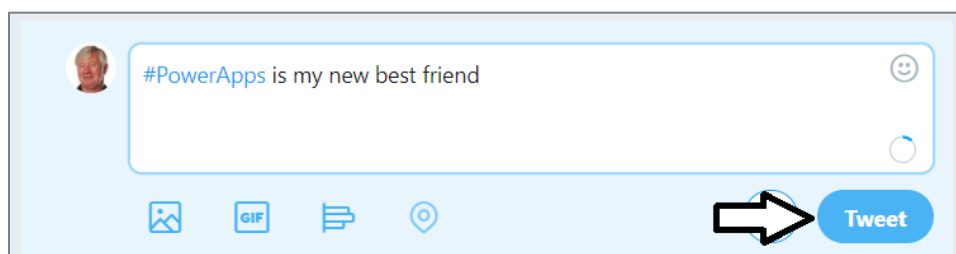


- g) Click the **Save** button to save your changes to the flow.



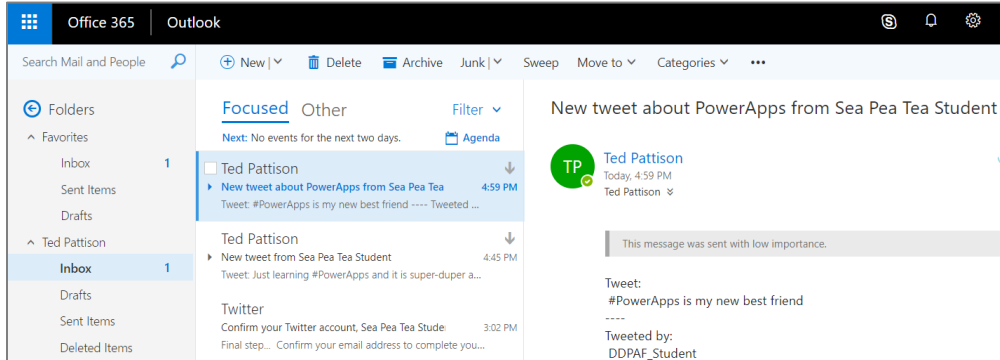
6. Send out a new tweet with the **#PowerApps** hashtag.

- a) Return to Twitter.com inside the browser.
b) Enter a new message containing the hashtag **#PowerApps** and click the **Tweet** button to send it.



7. Check your email.

- Return to the Outlook inbox for your Office 365 user account.
- Confirm that you received an email about the new tweet containing the **#PowerApps** hashtag.
- Make sure the new email contains "about PowerApps" in the subject and contains your changes to the email body.



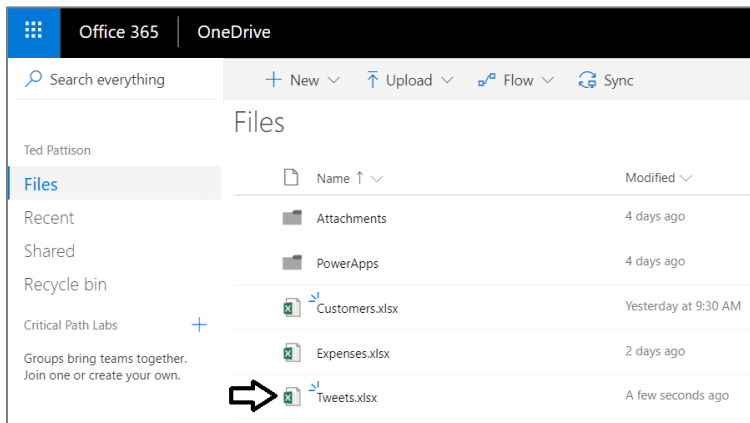
Over the next few steps, you will extend the flow you created in the previous exercise by adding tweets into an Excel workbook.

1. Upload the Excel workbook named **Tweets.xlsx** to OneDrive for Business.

- Using Windows Explorer, verify that there is an Excel book named **Tweets.xlsx** located at the following path.

C:\Student\Modules\03_DesigningFlows\Lab\Tweets.xlsx

- Drop down the Office 365 app launcher menu and select **OneDrive** to navigate to your **Files** collection.
- Click the **Upload** button and then select **Tweets.xlsx** to upload this file to OneDrive for Business.



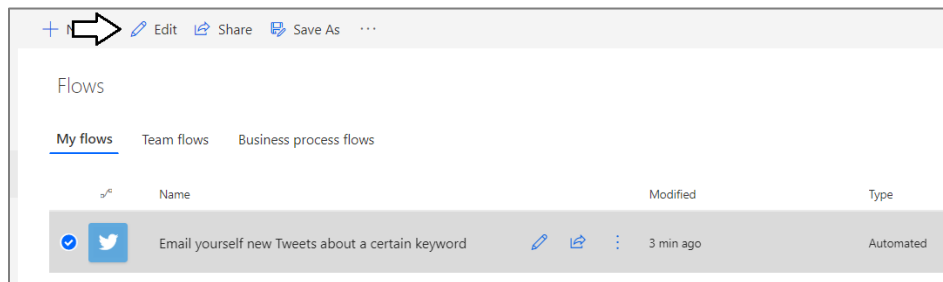
- Click on **Tweets.xlsx** to inspect the contents of this workbook.
- You should see that this workbook contains a single worksheet with a table for tracking tweets.

The screenshot shows the Excel Online interface. The table has the following structure:

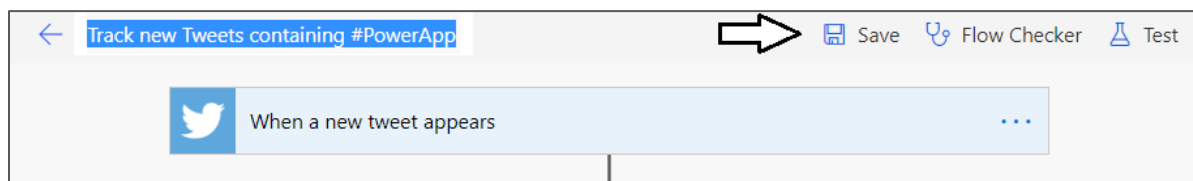
Time	Tweeter	ScreenName	RetweetCount	TweetText
1				
2				
3				
4				
5				

2. Update the title of your flow.

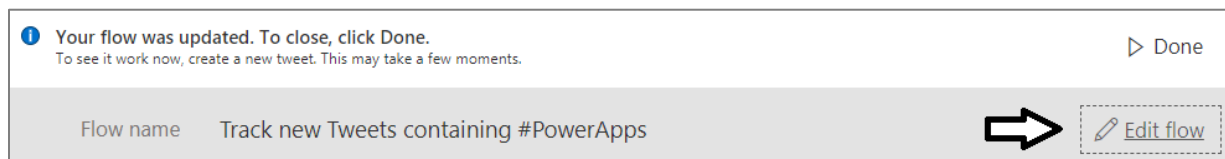
- a) Return to the **My flows** list in Microsoft Flow and find the **Email yourself new Tweets about a certain keyword** flow.
- b) Click the button with the pen icon to open the flow in edit mode.



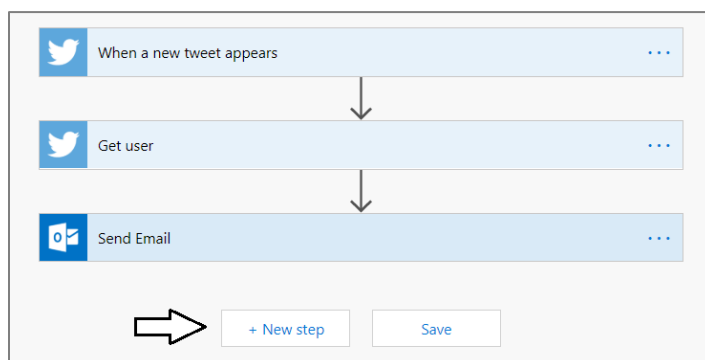
- c) Update the flow name to **Track new Tweets containing #PowerApp** and click the **Save** button.



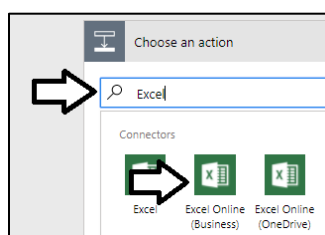
- d) Once the flow has been updated with the new name, click the **Edit flow** button.



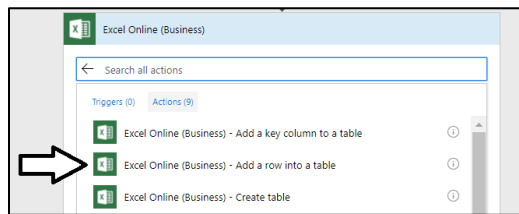
3. Modify your flow to write tweets into this workbook.
 - a) Click the **New step** button to add a new step at the end of the flow.



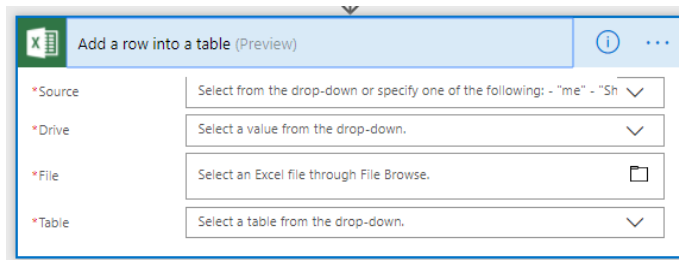
- b) Type **"Excel"** into the action search box and then click **Excel Online (Business)** to further filter the available actions..



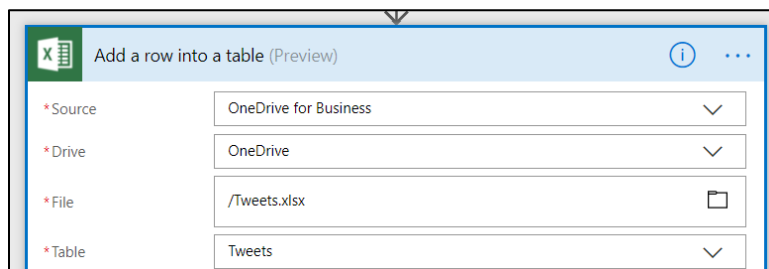
- c) Select the **Excel Online (Business) – Add a row into a table** action.



- d) You should now see a new action that requires you to configure its **Source**, **Drive**, **File** and **Table** properties.

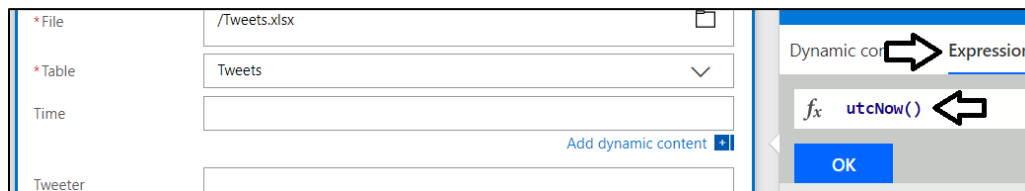


- e) Set the **Source** property to **OneDrive for Business**.
f) Set the **Drive** property to **OneDrive**.
g) Set the **File** property to **/Tweets.xlsx**.
h) Set the **Table** property to **Tweets**.

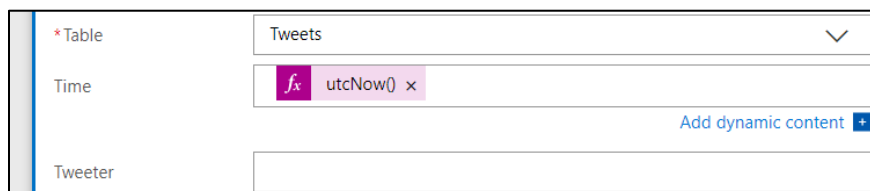


Once you set the **Table** property, you should see that action now has properties for each column in the **Tweets** table.

- i) Place your cursor in the Time input box and then add an expressions of **utcNow()** as shown in the following screenshot.



- j) Once you have added the expression for Time property, it should match the following screenshot.



You can set the remaining properties by placing the cursor inside the input control you want to update and then by selecting the value you want from the flow data properties view on the right-hand side.

- k) Set the **Twitter** property to **Name**.
- l) Set the **ScreenName** property to **User name**.
- m) Set the **RetweetCount** property to **Retweet Count**.
- n) Set the **TweetText** property to **Tweet text**.

- o) Click the **Save** button at the bottom of the Flow Designer to save your work.

- 4. Send out a new tweet with the **#PowerApps** hashtag.
 - a) Return to Twitter.com inside the browser.
 - b) Enter a new message containing the hashtag **#PowerApps** and click the **Tweet** button to send it.

- 5. Check your email.
 - a) Return to the Outlook inbox for your Office 365 user account.
 - b) Confirm that you received an email about the new tweet containing the **#PowerApps** hashtag.

6. Inspect the Excel workbook named **Tweets.xlsx**.

- a) Return to OneDrive for Business and click on **Tweets.xlsx** to open it.


Files			
Name	Modified	Modified By	File Size
Attachments	4 days ago	Ted Pattison	
PowerApps	4 days ago	Ted Pattison	
Customers.xlsx	Yesterday at 9:30 AM	Ted Pattison	158 KB
Expenses.xlsx	2 days ago	Ted Pattison	12.8 KB
Tweets.xlsx	3 minutes ago	Ted Pattison	9.46 KB

- b) Verify that the table in the workbook contains a new row for the tweet you just sent.




Excel Online				
Ted Pattison Documents Tweets				
	A	B	C	D
1	Time	Tweeter	ScreenName	RetweetCount
2	2018-03-25T23:38:	Sea Pea Tea Student	DDPAF_Student	0 #PowerApps gets even better with Microsoft Flow
3				
4				
5				

7. Inspect the run history for your flow.

- a) Return to Microsoft Flow and click the **My flows** link.
b) Click on your flow named **Track new Tweets containing #PowerApps**.

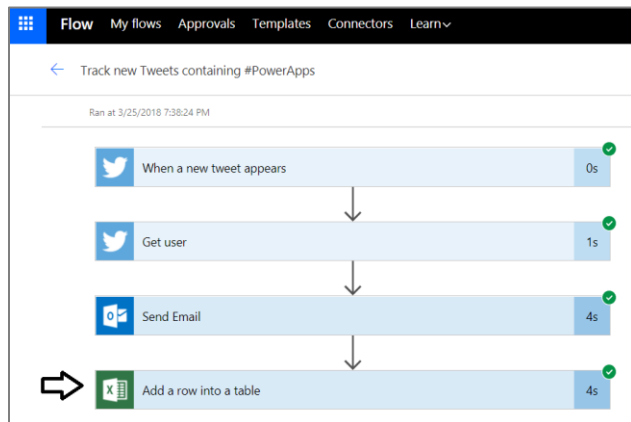
Flow My flows Approvals Templates Connectors Learn				
My flows Team flows + Create from blank Create from template Import				
Name	Last modified			
 Track new Tweets containing #PowerApps	21 minutes ago			

- c) You should now see a list of the flow's **RUN HISTORY**.
d) Click the top row in the **RUN HISTORY** list.

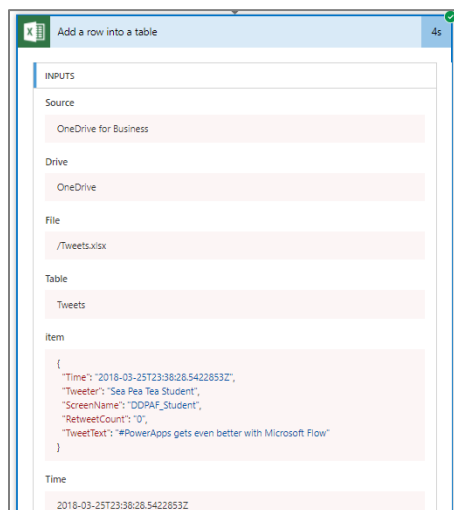
RUN HISTORY			
	Succeeded	9 minutes ago	8 seconds
	Succeeded	2 hours ago	0 seconds
	Succeeded	3 hours ago	0 seconds

You should now see a view that looks like the Flow Designer. However, the run history view is different because it is read-only.

- e) Click on the **Add a row into a table** action.

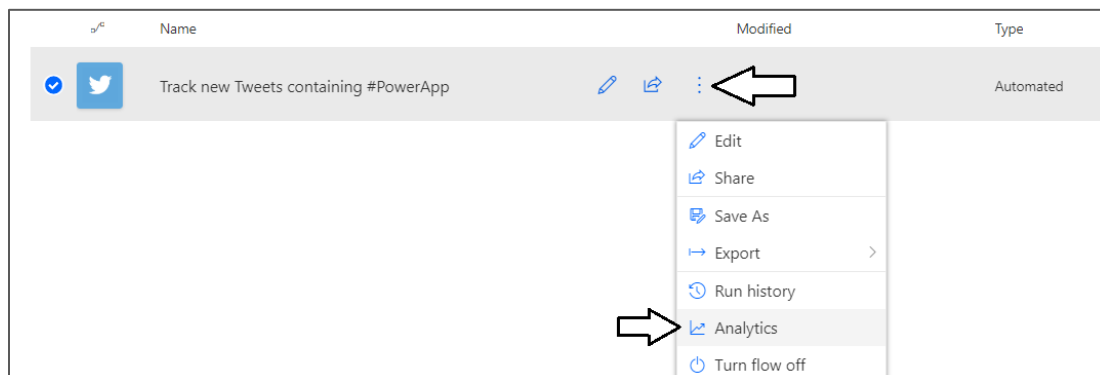


- f) Inspect the view for the run history for this action.



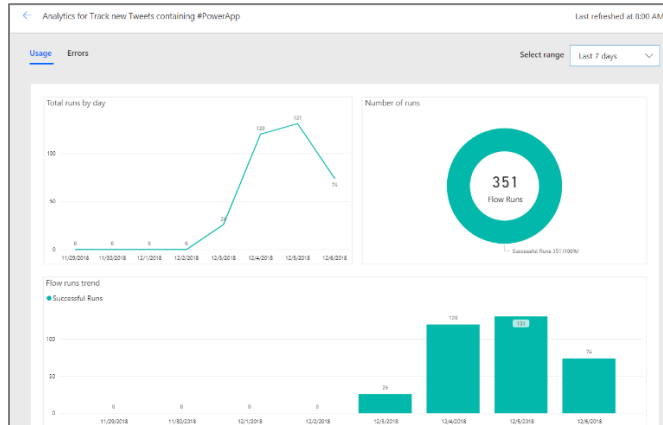
8. Inspect the analytics for your flow.

- a) Return to the **My flows** list.
b) Use the ellipse (...) dropdown menu on the right of your flow to select the **Analytics** menu command.



- c) Take a moment to see what data is available in the analytics view.

Note that the Analytics view for your flow doesn't have any data behind it yet because you have just created it. If you let this flow run for a few days, it will begin to look like the analytics view shown in the following screenshot.

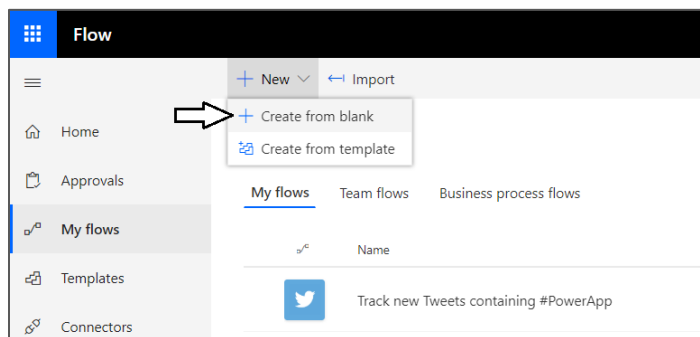


As you can see, analytics view is more valuable when a flow has analytics data from continually running in production environment.

Exercise 3: Create a Flow that is Manually Triggered by a Button

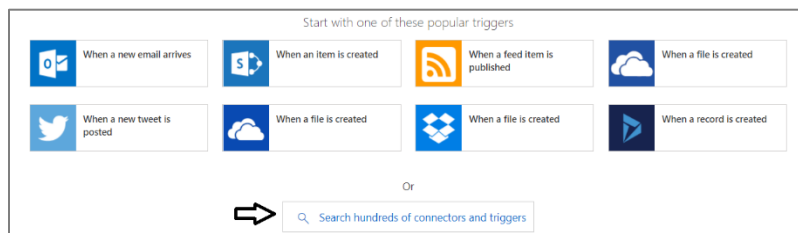
In this exercise, you will create a new flow from blank without using a template. This will give you a chance to see how to build a flow from the ground up. In this specific case, you will create a new flow that uses the Flow button for mobile trigger which allows a user to easily kick off a flow from a mobile device.

1. Create a new flow from blank.
 - a) Navigate to Microsoft Flow and click the **My flows** link.
 - b) Create a new flow by clicking the **Create from blank** link.

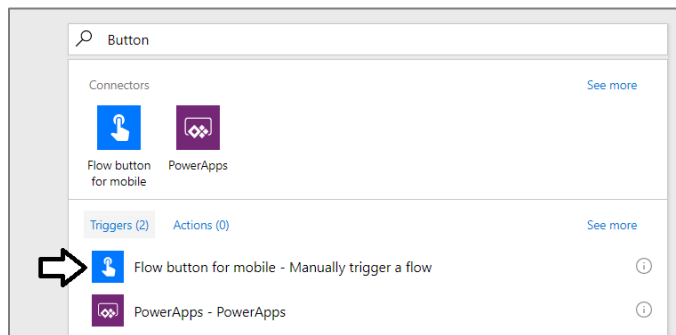


Since you have created a new flow without using a template, the flow is empty and you are prompted to select a trigger.

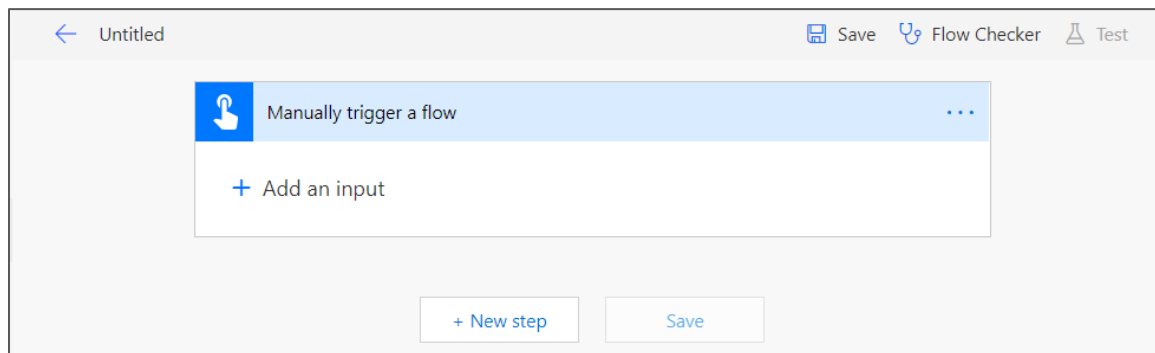
- c) Click the **Search hundreds of connections and triggers** link to search for a trigger.



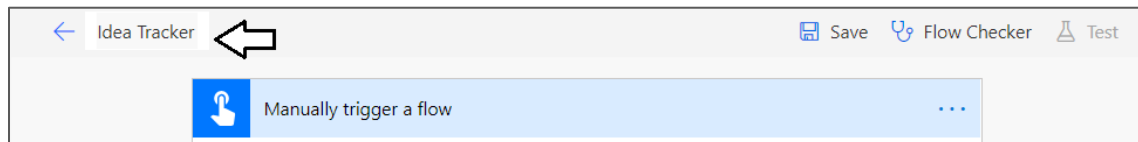
- d) When you see the search box, type in the word **“Button”** to find the trigger you need.
- e) Select the trigger named **Flow button for mobile – Manually trigger a flow**.



- f) You should now see a new untitled flow in the Flow Designer.

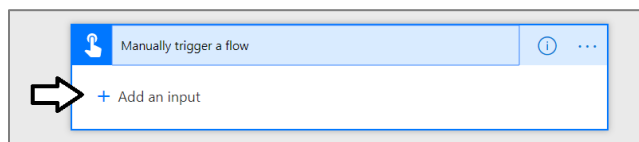


- g) Give the new flow a name of **Idea Tracker** as shown in the following screenshot.

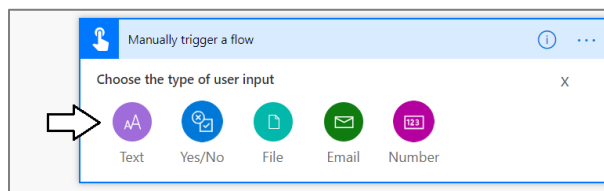


The Flow button trigger allows you to add input values. This makes it possible to prompt the user who is manually running the flow for input data that will be passed to the flow. In this flow, you will prompt the user for an idea and a value that indicates the idea quality.

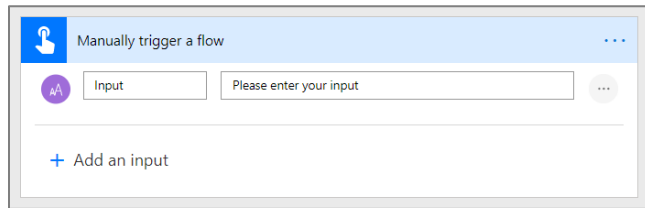
- h) Click the **Add an input** link.



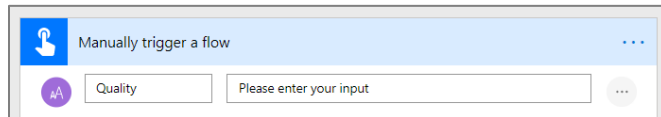
- i) When prompted to **Choose the type of user input**, click **Text**.



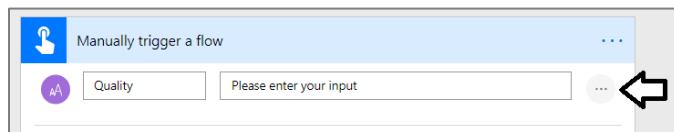
- j) You should now see an input that by default is named **Input**.



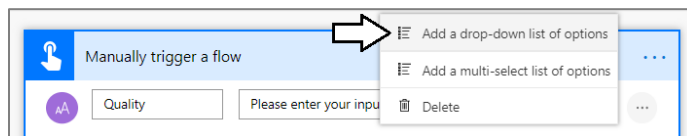
- k) Change the name of the input to **Quality** as shown in the following screenshot.



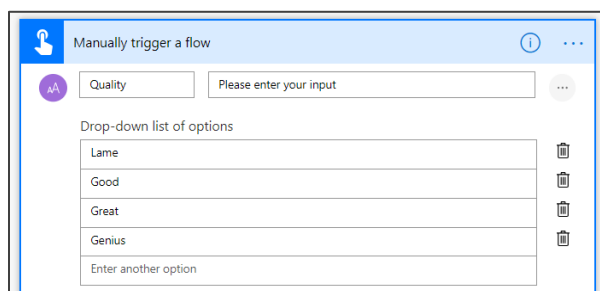
- l) Click the ellipse (...) drop menu on the right-hand side of the **Quality** input.



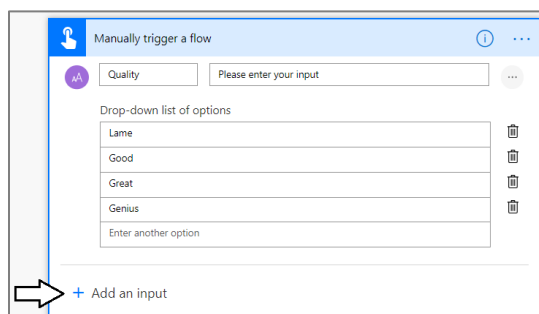
- m) Select the option for **Add a list of options** from the dropdown menu.



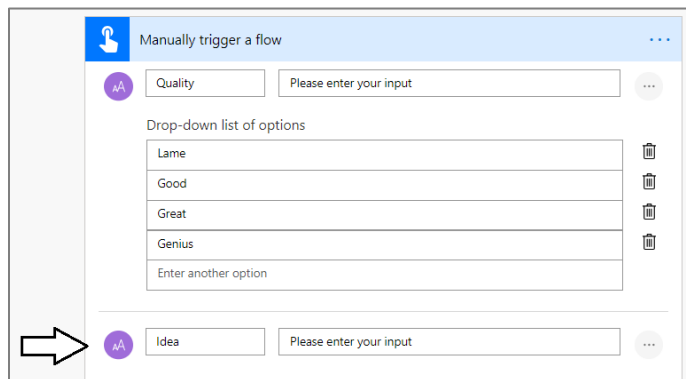
- n) Under **List Options**, add four choices which include **Lame**, **Good**, **Great** and **Genius** as shown in the following screenshot.



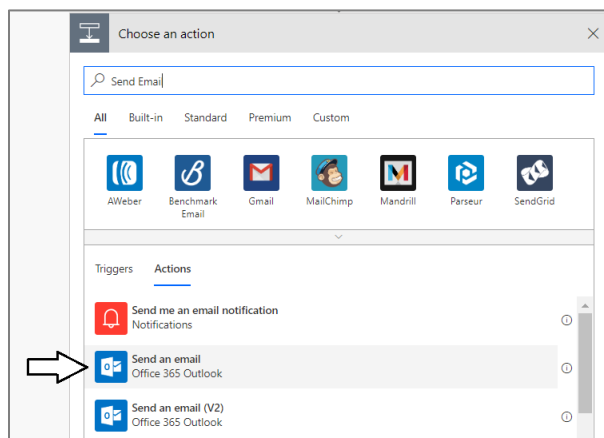
- o) Click **Add an input** to add a second input field.



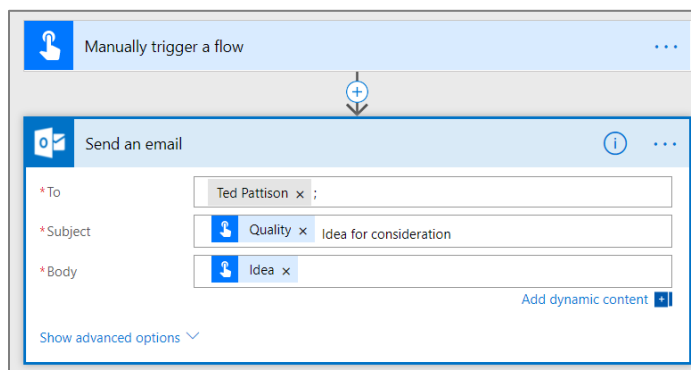
- p) When prompted to **Choose the type of user input**, click **Text**.
- q) Change the name of the second input field to **Idea**.



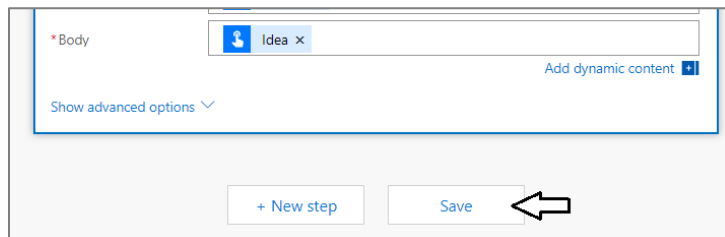
- 2. Add an action to send an email message every time the flow is triggered.
 - a) Click **New Step** at the bottom of the Flow Designer to add a new action.
 - b) Type “**Send Email**” into the search box to search for the **Send an email** action.
 - c) Select the **Send an email - Office 365 Outlook** action.



- d) In the **Send an email** action, add your Office 365 trial account email address to the **To** field.
- e) In the **Subject** field, add the **Quality** field from flow data followed by the text “ **Idea for consideration**”.
- f) In the **Body** field, add the **Idea** field from flow data.
- g) When you are done, the **Send an email** action should match the following screenshot.

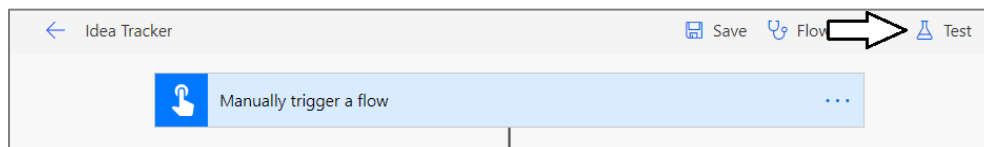


- h) Click the **Save** button at the bottom of the Flow Designer to save your flow.

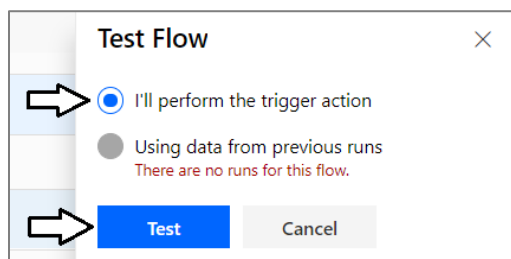


3. Test the **Idea Tracker** flow by running it from the browser.

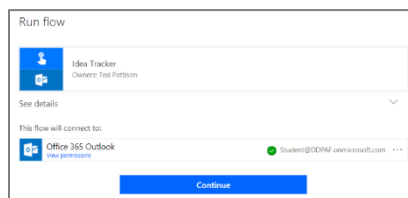
- a) Click the **Run Now** link to manually trigger the flow.



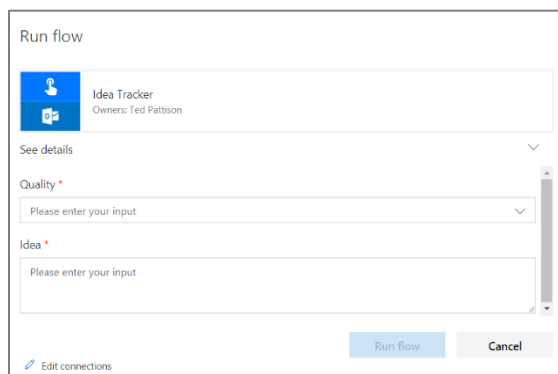
- b) cccc



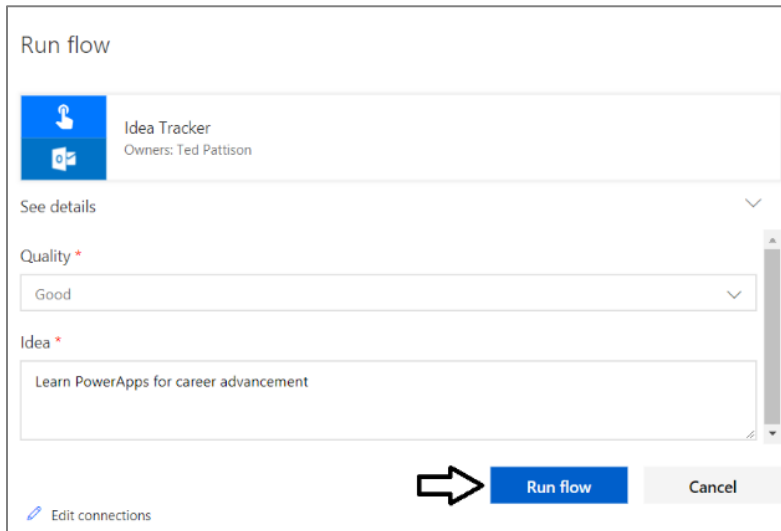
- c) If prompted, sign in with your Office 365 trial account and grant permissions to the Office 365 Outlook connector.
d) Click the **Continue** button.



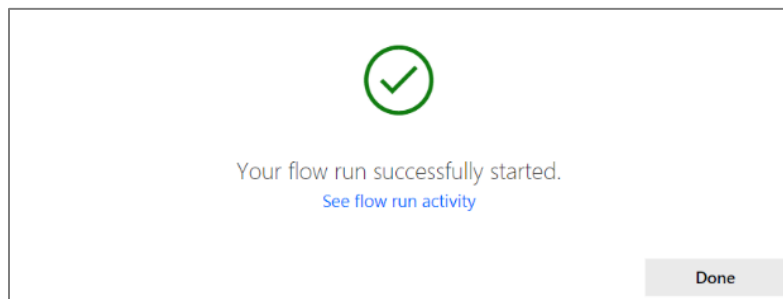
- e) You should now be prompted with a page that allows you to enter values for the two input fields named **Quality** and **Idea**.



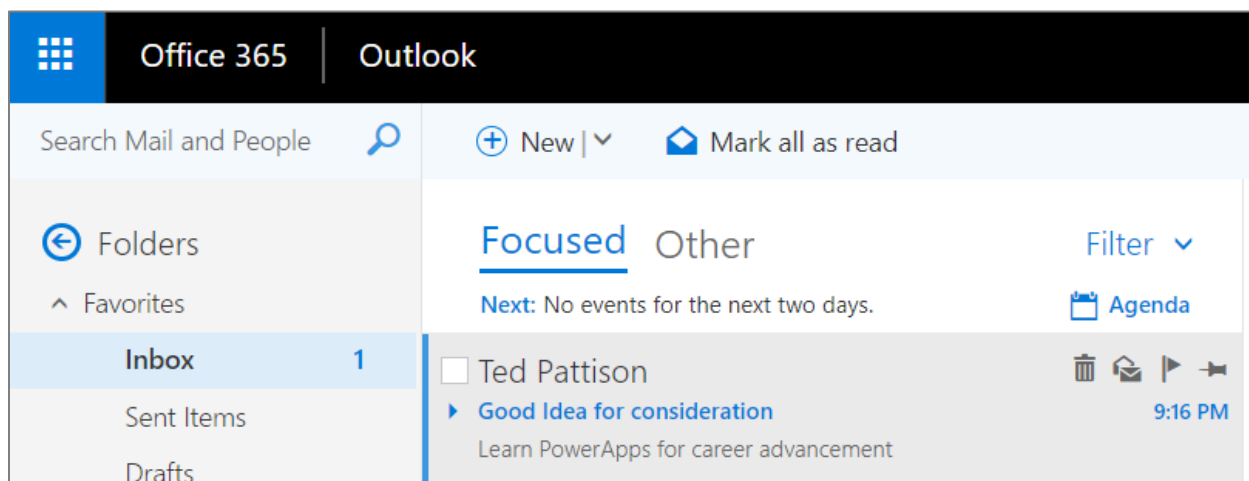
- f) Enter some sample test values for the input fields named **Quantity** and **Idea** and then click **Run flow**.



- g) You should see a message indicating that the flow ran successfully.



4. Check your inbox to see the message created by the **Idea Tracker** flow.
- Return to your inbox in Outlook.
 - Verify that you received the message with your idea.



Exercise 4: Create a SharePoint List to Store Customer Data

In this exercise, you will create a new modern SharePoint list named **Customers** to track customer data. After creating the **Customers** list, you will then add the necessary site columns and configure the default view to track customer data. In the final steps you will create a few new SharePoint list items to provide some sample data for when you build a canvas app in the next exercise.

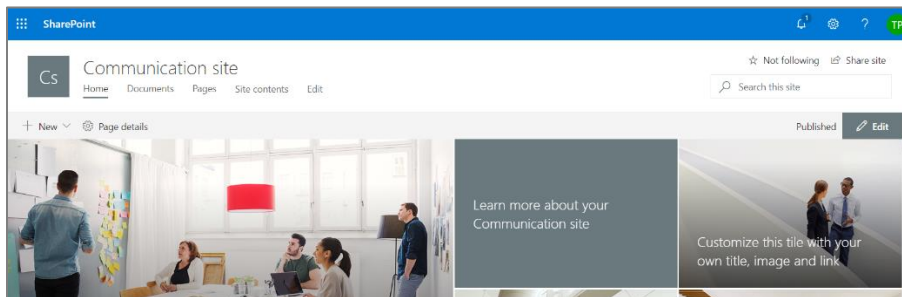
NOTE: You can skip this exercise if you have already created the SharePoint **Customers** list in a previous exercise.

5. Create a new SharePoint list named **Customers**.

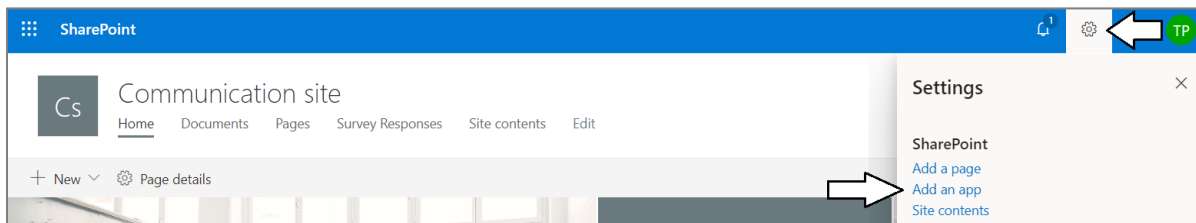
- a) Navigate to the root SharePoint site for your trial Office 365 tenancy.

The URL for your SharePoint root site can be determined by your Office 365 tenancy name. For example, if your Office 365 tenancy is named **bbspalabs**, then the URL for your SharePoint root site will be <https://bbspalabs.sharepoint.com>.

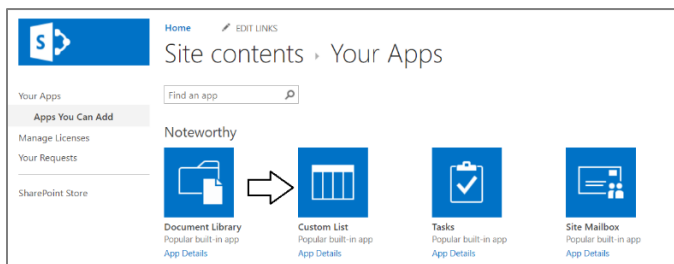
- b) When you navigate to your SharePoint site, it should be a SharePoint Communications site as shown in this screenshot.



- c) Click on the gear icon and then click on **Site contents**



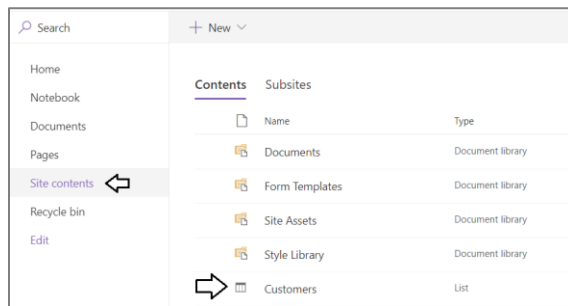
- d) Click the **Custom List** tile to create a new custom list.



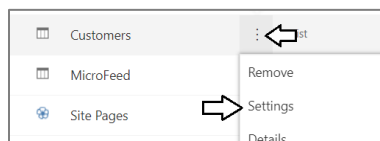
- e) When prompted with the **Adding Custom List** dialog, add a **Name** of **Customers** and click **Create**.



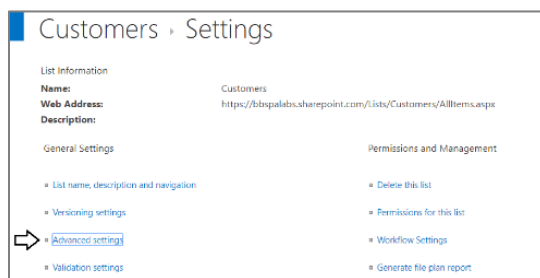
- f) Once the **Customers** list has been created, you should be able to locate this new list on the **Site contents** page.



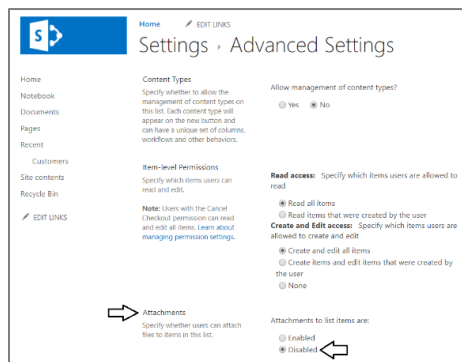
- g) On the **Site contents** page, drop down the context menu to the right of the **Customers** list and then click **Settings**.



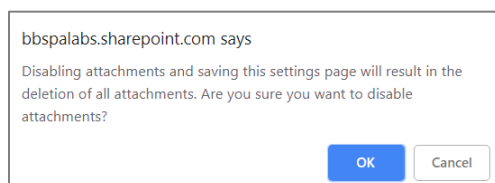
- h) On the **Settings** page, click the **Advanced Settings** link to navigate to the **Advanced Settings** page.



- i) On the **Advanced Settings** page, change the **Attachments** setting to **Disabled**.




- j) When prompted with the warning about disabling attachments, click **OK** to continue.




- k) Scroll to the bottom of the **Advanced Settings** page and click **OK** to save your changes and return to the **Settings** page.

6. Configure the columns for the new **Customers** list.

- In the **Setting** page, scroll down to the **Columns** section.
- Click on the link for the column named **Title** to navigate to the **Edit Column** page


Columns		
A column stores information about each item in the list. The following columns are currently available in this list:		
Column (click to edit)	Type	Required
 Title	Single line of text	✓
Modified	Date and Time	
Created	Date and Time	
Created By	Person or Group	
Modified By	Person or Group	

- The **Column name** should currently have a value of **Title**.

Home  EDIT LINKS

Settings ▸ Edit Column ⓘ

Name and Type

Type a name for this column. 

- Update the **Column name** to **Last Name** to change the column's display name.


Home  EDIT LINKS

Settings ▸ Edit Column ⓘ

Name and Type

Type a name for this column. 

- Click the **OK** button at the bottom of the **Edit Column** page to save your changes and return to the **Settings** page.
- You should be able to see the column name has been updated to **Last Name**.

Columns		
A column stores information about each item in the list. The following columns are currently available in this list:		
Column (click to edit)	Type	Required
 Last Name	Single line of text	✓
Modified	Date and Time	
Created	Date and Time	
Created By	Person or Group	
Modified By	Person or Group	


Note that you have updated the column display name to **Last Name** but the underlying site column name is still **Title**.

- Click **Add from existing site columns** link to navigate to the **Add from existing site columns** page.

Columns

A column stores information about each item in the list. The following columns are currently available in this list:

Column (click to edit)	Type	Required
Last Name	Single line of text	✓
Modified	Date and Time	
Created	Date and Time	
Created By	Person or Group	
Modified By	Person or Group	

 [Add from existing site columns](#)

- h) On the **Add from existing site columns** page, drop down the **Select site columns from** menu.
- i) Set the **Select site columns from** dropdown menu to **Core Contact and Calendar columns**.

Settings > Add Columns from Site Columns ⓘ

Select Columns
Select which site columns to add to this list.

Select site columns from:
Core Contact and Calendar Columns

Available site columns:
Address
Anniversary

Columns to add:

- j) In the **Available site columns** list, select **First Name** column and then click the **Add** button.

Select Columns
Select which site columns to add to this list.

Select site columns from:
Core Contact and Calendar Columns

Available site columns:
Fax Number
First Name
FTP Site
Full Name
Gender
Government ID Number
Hobbies

Columns to add:

Add >
< Remove

- k) You should now see the **First Name** column in the **Column to add** list.

Select Columns
Select which site columns to add to this list.

Select site columns from:
Core Contact and Calendar Columns

Available site columns:
Fax Number
FTP Site
Full Name
Gender

Columns to add:
First Name

Add >
< Remove

You will now follow the same steps to add several more site columns to the **Columns to add** list.

- l) Add the column named **Company**.
- m) Add the column named **E-Mail**.
- n) Add the column named **Business Phone**.
- o) Add the column named **Home Phone**.
- p) Add the column named **Address**.
- q) Add the column named **City**.
- r) Add the column named **State/Province**.
- s) Add the column named **ZIP/Postal Code**.
- t) Now that you have added all the site columns you need to the **Columns to add** list, click the **OK** button to save your changes.

Select Columns
Select which site columns to add to this list.

Select site columns from:
Core Contact and Calendar Columns

Available site columns:
Telex
TTY-TDD Phone
User Field 1
User Field 2
User Field 3
User Field 4
Web Page

Columns to add:
Company
E-Mail
Business Phone
Home Phone
Address
City
State/Province
ZIP/Postal Code

Add >
< Remove

- u) You should now be able to see the columns you've added in the **Columns** section of the **Settings** page.

Columns		
A column stores information about each item in the list. The following columns are currently available in this list:		
Column (click to edit)	Type	Required
Last Name	Single line of text	✓
First Name	Single line of text	
Company	Single line of text	
E-Mail	Single line of text	
Business Phone	Single line of text	
Home Phone	Single line of text	
Address	Multiple lines of text	
City	Single line of text	
State/Province	Single line of text	
ZIP/Postal Code	Single line of text	
Modified	Date and Time	
Created	Date and Time	
Created By	Person or Group	
Modified By	Person or Group	

7. Configure the columns displayed in the default view of the **Customers** list.

- a) In the **Settings** page, scroll down to the **Views** section.
b) Click on the **All Items** link to open this view in the **Edit View** page.

Views		
A view of a list allows you to see a particular selection of items or to see the items sorted in a particular order. Views currently configured for this list:		
View (click to edit)	Default View	Mobile View
⇒ All Items	✓	✓
■ Create view		

- c) You should be able to see that all site columns you added to the list were also added to the default view.

Columns			
Select or clear the check box next to each column you want to show or hide in this view of this page. To specify the order of the columns, select a number in the Position from left box.			
Display	Column Name	Position from Left	
<input checked="" type="checkbox"/>	Last Name (linked to item with edit menu)	1	▼
<input checked="" type="checkbox"/>	First Name	2	▼
<input checked="" type="checkbox"/>	Company	3	▼
<input checked="" type="checkbox"/>	E-Mail	4	▼
<input checked="" type="checkbox"/>	Business Phone	5	▼
<input checked="" type="checkbox"/>	Home Phone	6	▼
<input checked="" type="checkbox"/>	Address	7	▼
<input checked="" type="checkbox"/>	City	8	▼
<input checked="" type="checkbox"/>	State/Province	9	▼
<input checked="" type="checkbox"/>	ZIP/Postal Code	10	▼

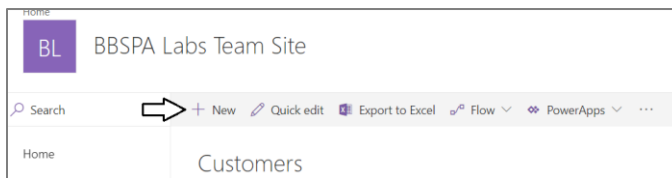
- d) Uncheck the **Display** checkbox for **Address**, **City**, **State/Province**, **ZIP/Postal Code**.

Columns			
Select or clear the check box next to each column you want to show or hide in this view of this page. To specify the order of the columns, select a number in the Position from left box.			
Display	Column Name	Position from Left	
<input checked="" type="checkbox"/>	Last Name (linked to item with edit menu)	1	▼
<input checked="" type="checkbox"/>	First Name	2	▼
<input checked="" type="checkbox"/>	Company	3	▼
<input checked="" type="checkbox"/>	E-Mail	4	▼
<input checked="" type="checkbox"/>	Business Phone	5	▼
<input checked="" type="checkbox"/>	Home Phone	6	▼
<input type="checkbox"/>	Address	7	▼
<input type="checkbox"/>	City	8	▼
<input type="checkbox"/>	State/Province	9	▼
<input type="checkbox"/>	ZIP/Postal Code	10	▼

- e) Click **OK** at the bottom of the **Edit View** page to save your changes to the **All Items** view and navigate to the default view.
f) The columns in view should now include **Last Name**, **First Name**, **Company**, **E-Mail**, **Business Phone** and **Home Phone**.

+ New	Quick edit	Export to Excel	Flow	PowerApps	...
Customers					
Last Name ▼	First Name ▼	Company ▼	E-Mail ▼	Business Phone ▼	Home Phone ▼

8. Add a new sample customer item to the **Customers** list.
- a) Click the **New** button to display the SharePoint add item form.



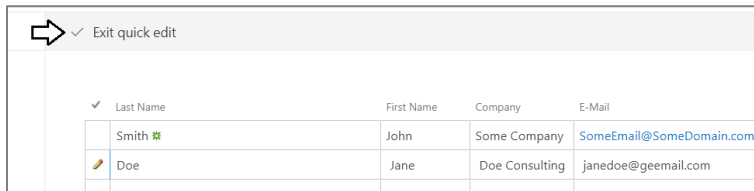
- b) Enter a **Last Name**, **First Name**, **Company** and **E-Mail** using the sample data below such as the data shown below.

- c) Make sure you add data into the fields for **Address**, **City**, **State/Province** and **ZIP/Postal Code**.

The reason you need to add customer data with address, city, state and zip code data has to do with the next lab exercise in which you will automate generating a Word document from a SharePoint item. You will use the customer address information in a flow to generate the customer mailing address which will be written into the Word document.

- d) Click the **Save** button to save the new customer list item back to SharePoint Online.
- e) You should be able to see the new customer item you've just created in the **Customers** list.
- f) Click the **Quick edit** button to enter quick edit mode to add a second customer item

- g) After adding a second customer item, click **Exit quick edit** to exit quick edit mode and save your changes.



The screenshot shows a button labeled 'Exit quick edit' with a checkmark and an arrow. Below it is a table with the following data:

Last Name	First Name	Company	E-Mail
Smith	John	Some Company	SomeEmail@SomeDomain.com
Doe	Jane	Doe Consulting	janedoe@gmail.com

- h) The **Customers** list should now have at least two customer items.



The screenshot shows a table titled 'Customers' with the following data:

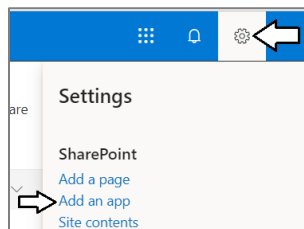
Last Name	First Name	Company	E-Mail
Smith	John	Some Company	SomeEmail@SomeDomain.com
Doe	Jane	Doe Consulting	janedoe@gmail.com

You are now done creating the SharePoint list to store customer data. In the next exercise, you will create a new flow that can be triggered by selecting one of these customer list items.

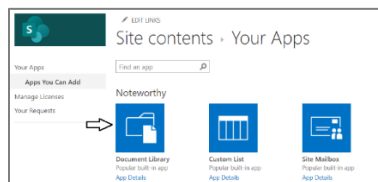
Exercise 5: Create a Flow to Generate a Word Document from a SharePoint List Item

In this exercise, you will create a new flow that is triggered by selecting a customer item from the SharePoint **Customers** list. You will build the flow to generate a new Word document and populate its content from data in the SharePoint list item that triggered the flow.

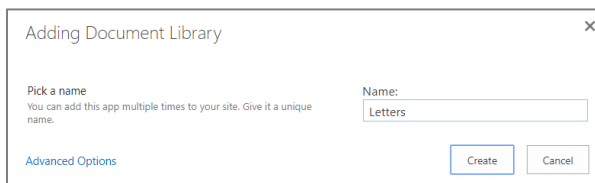
9. Create a SharePoint document library to store letters that are generated by the flow you will create in this exercise.
 - a) Navigate to your SharePoint site.
 - b) Click the **Add an app** menu command from the **Site Actions** menu.



- c) Select a list type of **Document Library**.



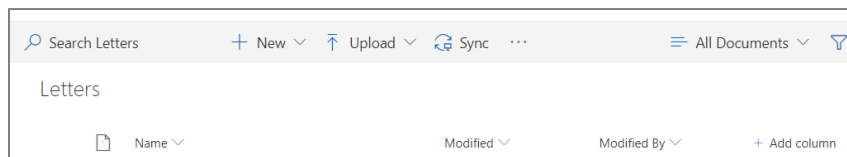
- d) Enter a **Name** of **Letters** for the document library and click **Create**.



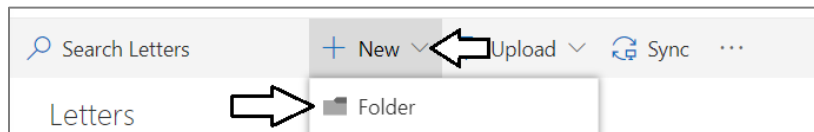
The screenshot shows the 'Adding Document Library' dialog box. The 'Name' field is filled with 'Letters'. The 'Create' button is highlighted with a red arrow.

10. Create a folder inside the **Letters** document library to store a letter template.

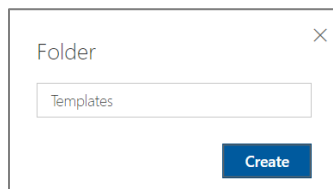
a) Once the **Letters** document library has been created, navigate to its default view.



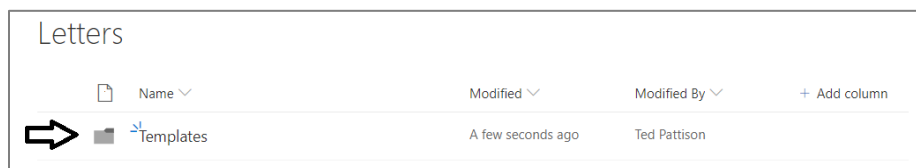
b) Click the **New > Folder** command to create new folder.



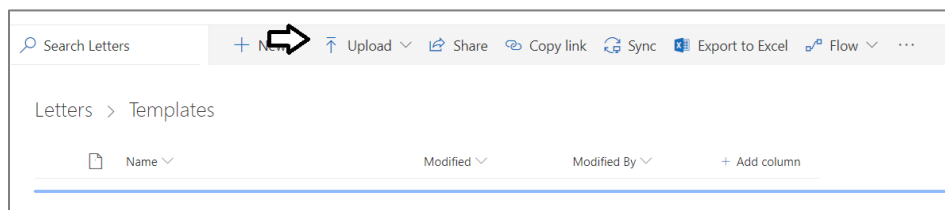
c) Give the new folder a name of **Templates** and click **Create** to create the new document library.



d) Once the **Templates** folder has been created, click on the **Templates** link to navigate inside the folder.



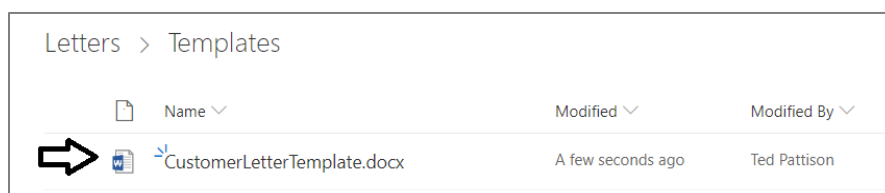
e) Once you have navigated inside the **Templates** folder, click the **Upload** button to upload a Word template file into that folder.



f) Upload the file named **CustomerLetterTemplate.docx** which is located in the **Student** folder at the following path.

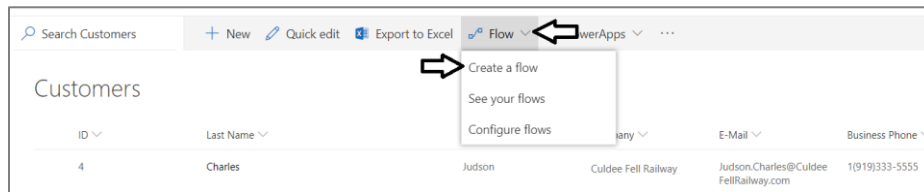
C:\Student\Modules\01_GettingStarted\Lab\CustomerLetterTemplate.docx

g) Verify that **CustomerLetterTemplate.docx** has been uploaded to the **Templates** folder.

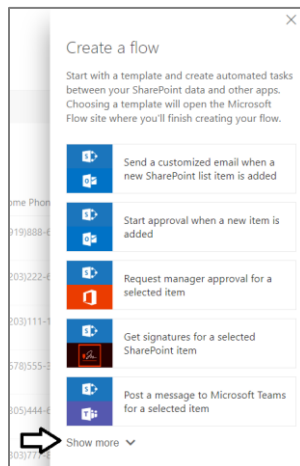


11. Create a new flow on the SharePoint **Customers** list using the **For a selected item** trigger.

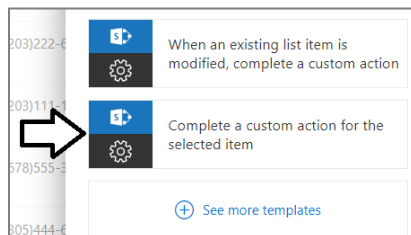
- Navigate to the **Customers** list in your SharePoint site.
- Drop down the **Flow** menu in the ribbon and select the **Create a flow** command.



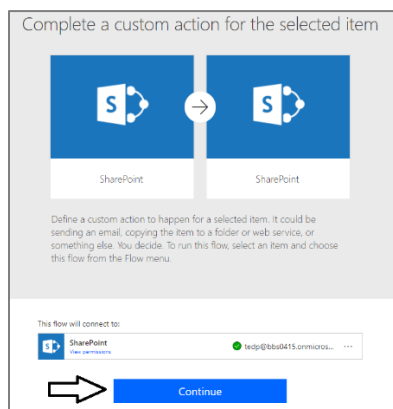
- When you see the **Create a flow** pane on the right, click the **Show more** link at the bottom.



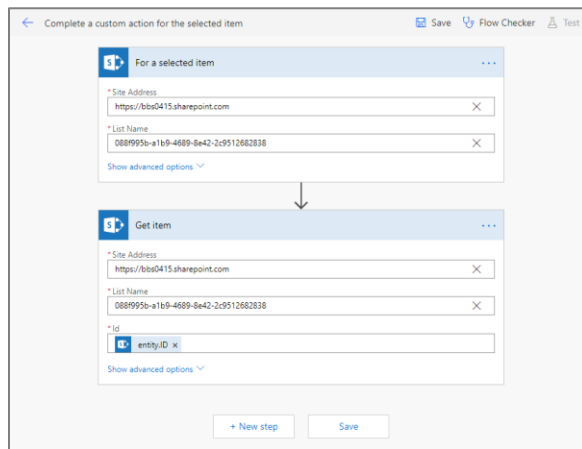
- Scroll to the bottom of the templates list and select the template named **Complete a custom action for the selected item**.



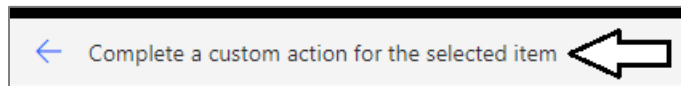
- When prompted to grant permissions for a new SharePoint connection, click **Continue**.



- f) You should now see a new flow with a **For a selected item** trigger at the top and a **Get item** action below.



- g) At the top left, locate the flow **Name** which has a default value of **Complete a custom action for the selected item**.

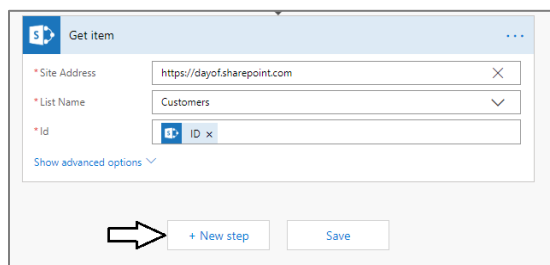


- h) Update the **Name** of the flow to **Generate Customer Letter**.



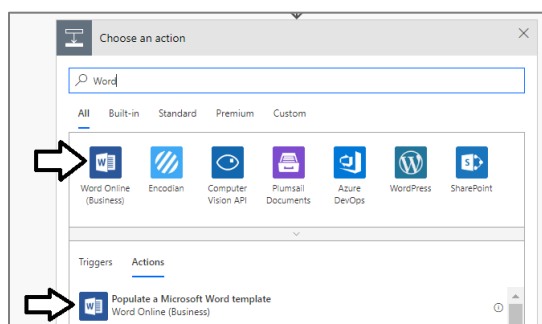
12. Add a new step to generate a new Microsoft Word document using customer data from the selected customer item.

- a) Underneath the **Get item** action, click **New step** button to add a new step to the bottom of the flow.

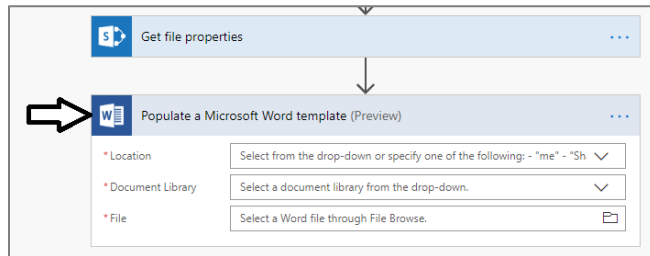


- b) Type **Word** into the action search box.

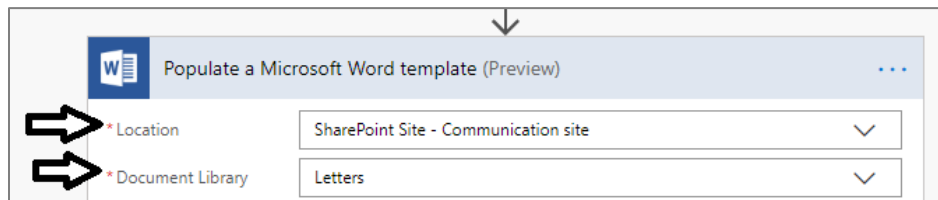
- c) Locate and select the action named **Populate a Microsoft Word template**.



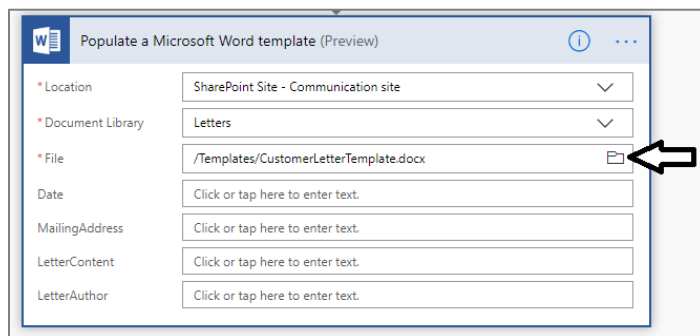
- d) The **Populate a Microsoft Word template** action should appear in the flow designer.



- e) Configure the **Location** parameter to reference your SharePoint site.
f) Configure the **Document Library** parameter to reference the **Letters** document library.



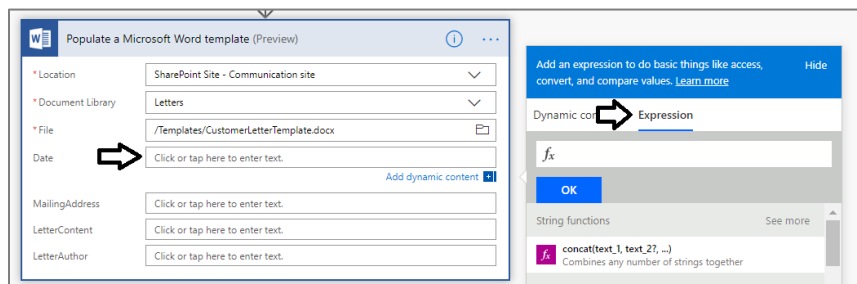
- g) Configure the **File** parameter to reference the template file named **CustomerLetterTemplate.docx** in the **Templates** folder.



Once you configure the **File** property to reference the template file named **CustomerLetterTemplate.docx**, the flow designer discovers the input fields in the Word template named **Date**, **MailingAddress**, **LetterContent** and **LetterAuthor** and provides an opportunity for you to initialize these input field values using content generated from the selected customer item.

13. Initialize the **Date** input field for the Word document template.

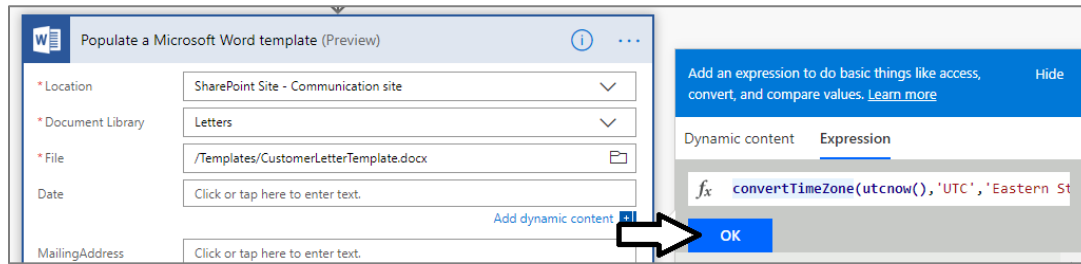
- a) Place your cursor in the textbox for the **Date** parameter and then click the **Expressions** tab on the right.



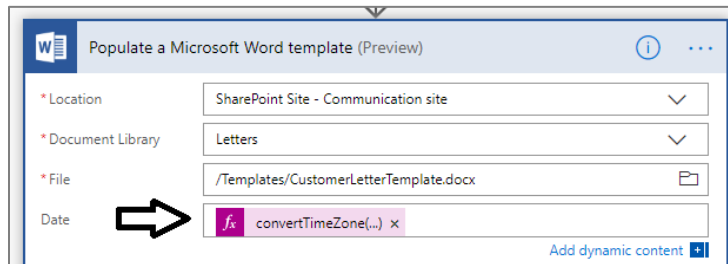
- b) Copy the following WDL expression into the clipboard and then paste it into the **Expressions** textbox.

```
convertTimeZone(utcnow(),'UTC','Eastern Standard Time','MMM d, yyyy')
```

- c) Once you have pasted the expression into the **Expression** textbox, click the **OK** button to save your changes.

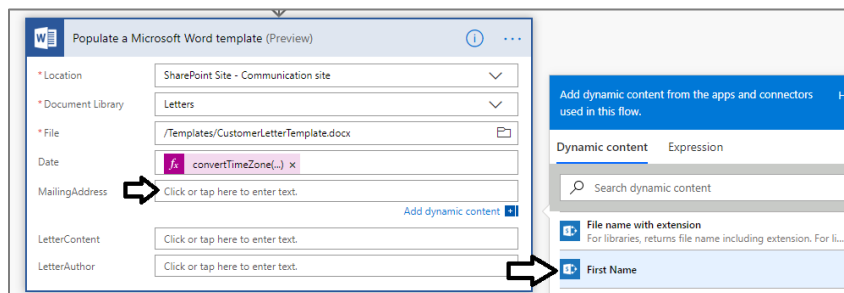


- d) You should be able to verify that the expression with the **convertTimeZone** function has been entered correctly.

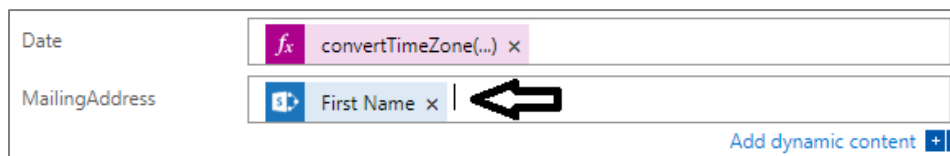


14. Initialize the **MailingAddress** input field for the Word document template.

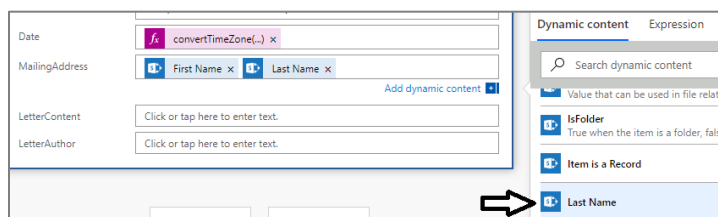
- a) Place your cursor inside the textbox for the **MailingAddress** parameter.
- b) Click the **First Name** output parameter from the **For a selected item** trigger.



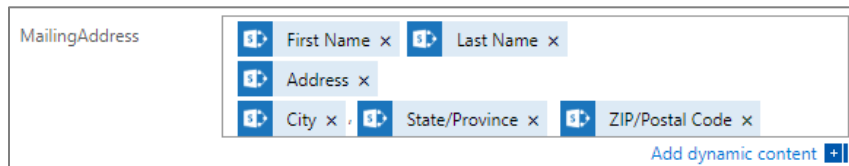
- c) Place the cursor after **First Name** and add a space.



- d) After the space, add the **Last Name** parameter from the **For a selected item** trigger.

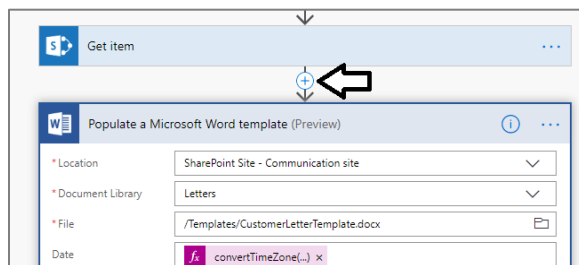


- e) Next, add a line break
- f) Add **Address**.
- g) Add another line break.
- h) Add **City** followed by a comma (,) and then a space.
- i) Add **State/Province** followed by two spaces and then **ZIP/Postal Code**.

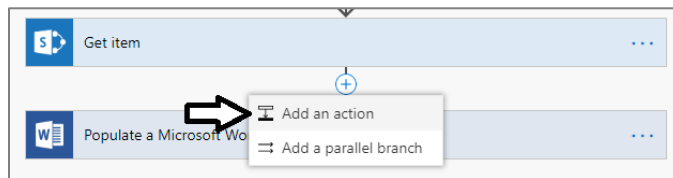


15. Add a new **Compose** step to build the content for the **LetterContent** input field.

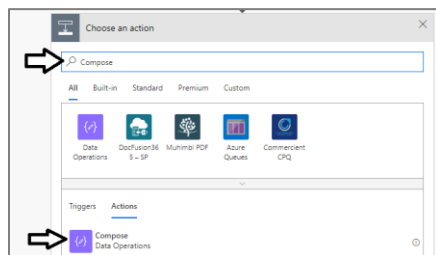
- a) Click the **+** button in between the **Get item** action and the **Populate a Microsoft Word template**.



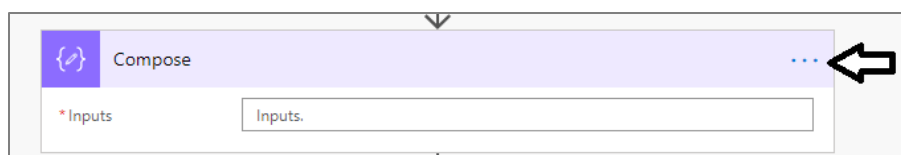
- b) Select the **Add an action** command.



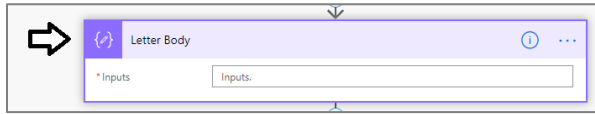
- c) Type **Compose** into the action search textbox.
- d) Locate and select the **Compose** action.



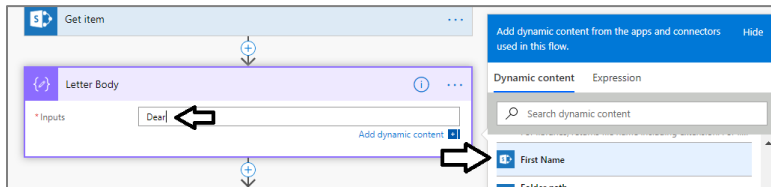
- e) You can see that the **Compose** action has one input parameter named **Inputs**.
- f) Click the ellipse context menu on the right of the **Compose** action and select the **Rename** command.



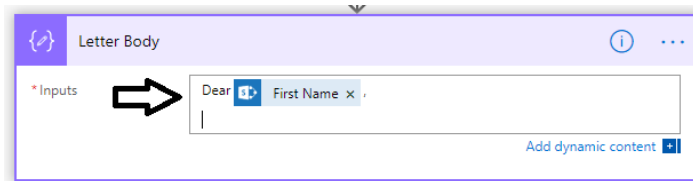
- g) Rename the action to **Letter Body**.



- h) Place your cursor inside the **Inputs** textbox and type "Dear" followed by a space.
i) Next, add the **First Name** output parameter from the **For a selected item** trigger.



- j) Enter a comma (,) followed by a line break.



- k) Enter content for the letter body by copying and pasting the following text.

Lorem ipsum dolor sit amet, id omnis viderer blandit pri, duo in vide nominati consequuntur, duo ne admodum tractatos. An velit iudico phaedrum vim, no saepe altera duo, sea dui assum id. Cu mel facilisi rationibus, in eros albucius per, cum id movet graecis. Ex vel tollit civibus repudiare, quidam audire vituperatoribus pri an. An eros utinam has.

Dicat veniam reprehendunt usu eu, id pri stet qualisque. Vis tale quaeque incorrupte ea, mea quaestio imperdiet ei, per eu perfecto lobortis argumentum. Ad his viris appetere gloriatur. Ei eos elit appareat complectitur. Quo novum aperiri accusamus ei, dui nostrud cum no, at vel dolorum recusabo patrioque.

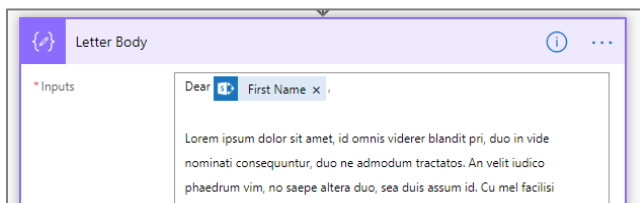
Vim no eius verterem urbanitas, error veniam vim an. Ut possit aperiam sed, veniam oporteat sapientem has eu, pro civibus evertitur ne. Saepe impetus id vis, vel iudico tantas epicurei te. Pri praesent instructor eu, vix quod lorem commune ei, mea facilisi tacimates antiopam eu.

Erant animal te nam, ius praesent imperdiet abhorreant an. Mea unum dicam gloriatur eu, quem molestie accusamus vel te. Dicam nonumes at mei, omnis veritus adipisci ne eos. Everti mnesarchum in eam, no ius aequae vulputate. An debet referrentur vim, duo ne amet melius.

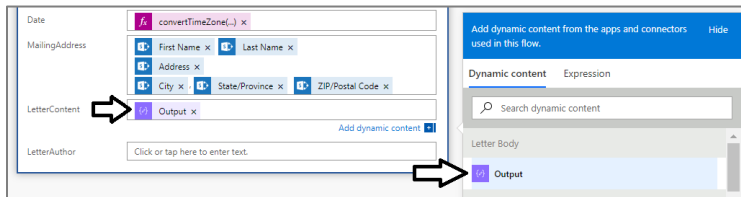
Duo magna mediocrem occurreret et. Mollis voluptatum ei eam. Placerat scripserit an has, vitae tempor vim no. Oblique admodum iudicabit est in. Ut suavitate disputationi eum, et modo error commune quo.

Augue fabulas id vel. Nec dico legimus an, diceret qualisque his eu. Molestiae laboramus ex eam, in sumo essent dignissim his, eu delicata liberavisse mea. Vis ut iudico graeco iriure. Per veniam eleifend ad, eu sit novum tempor menandri.

- l) The **Inputs** parameter of the **Letter Body** action should now contain content for the letter body.

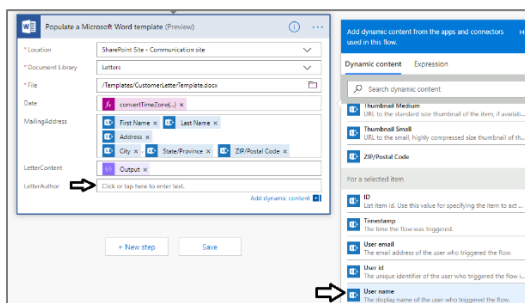


- m) Place your cursor inside the **LetterContent** parameter of the **Populate a Microsoft Word template** action.
- n) Configure the **LetterContent** parameter by assigning the **Output** property of the **Compose** action named **Letter Body**.

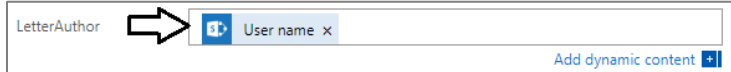


16. Initialize the **LetterAuthor** input field for the Word document template.

- a) In the **Populate a Microsoft Word template** action, place your cursor inside the textbox for the **LetterAuthor** parameter.
- b) Configure the **LetterAuthor** parameter by assigning the **User name** parameter of the **For a selected item** trigger.

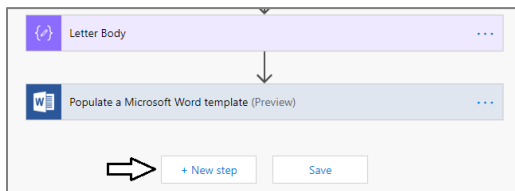


- c) Verify that the **User name** parameter has been assigned to the **LetterAuthor** input field

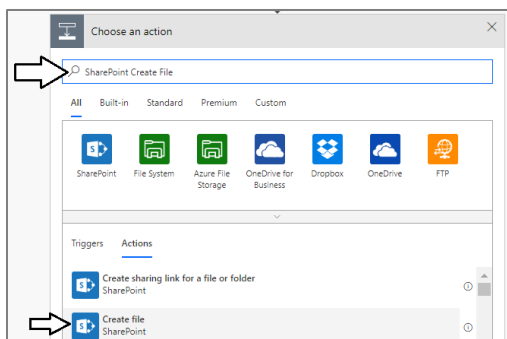


17. Add a new SharePoint **Create File** action to save the new Word document into the **Letters** document library.

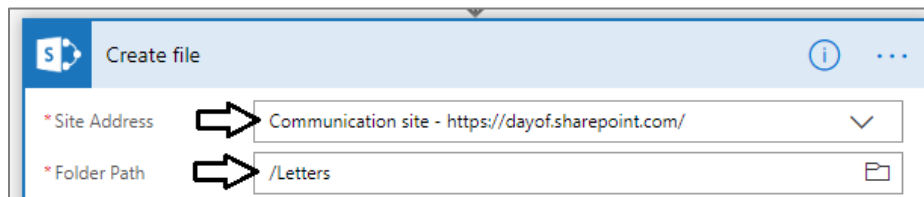
- a) Click the **New step** button at the bottom of the flow to add a new **Create File** action.



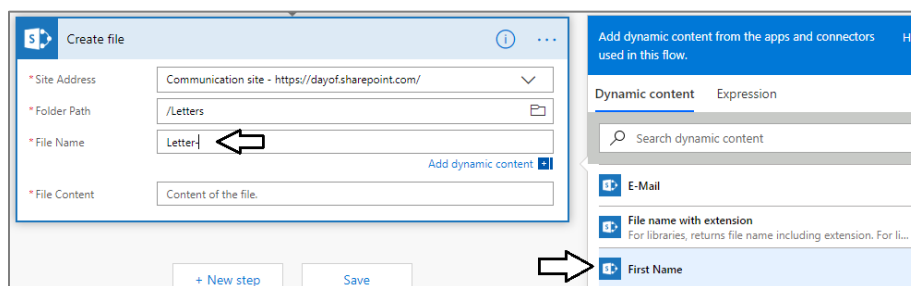
- b) Type in **SharePoint Create File** into the action search box.
- c) Locate and select the SharePoint **Create File** action.



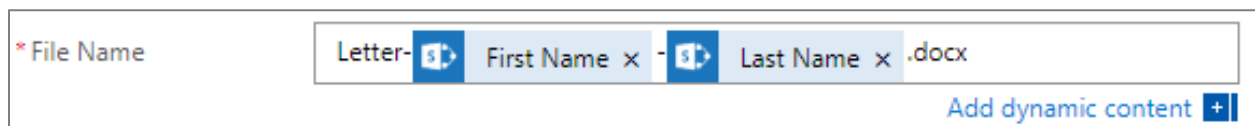
- d) Configure the **Site Address** parameter with the URL to your SharePoint site.
- e) Configure the **Folder Path** to reference the **/Letters** document library.



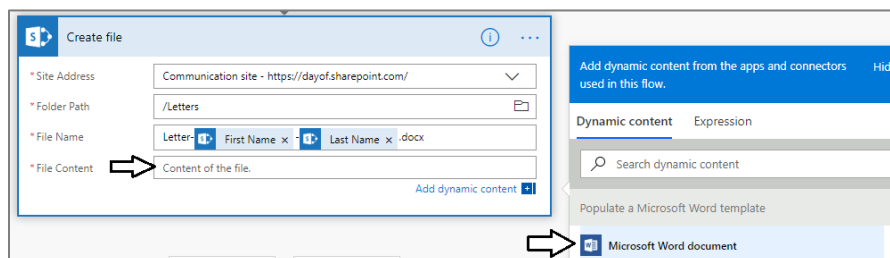
- f) Place your cursor into the textbox for the **File Name** parameter.
- g) Type in an initial text value of "**Letter**" followed by a hyphen (-).
- h) Next click on the **FirstName** output parameter of the **For a selected item** trigger.



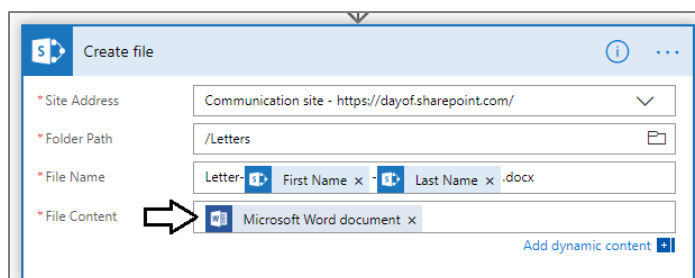
- i) After adding the **First Name** parameter, add another hyphen followed by the **Last Name** parameter and then ".docx".



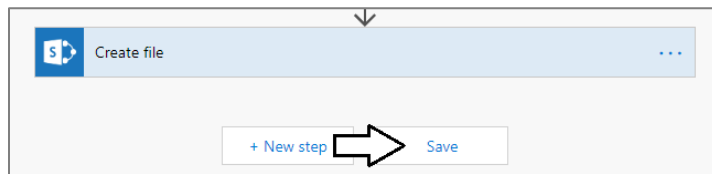
- j) Place your cursor inside the textbox for the **File Contents** parameter and then add the **Microsoft Word document** parameter of the **Populate a Microsoft Word template** action as shown in the following screenshot.



- k) The **File Contents** parameter should now be configured with the **Microsoft Word document** output parameter.

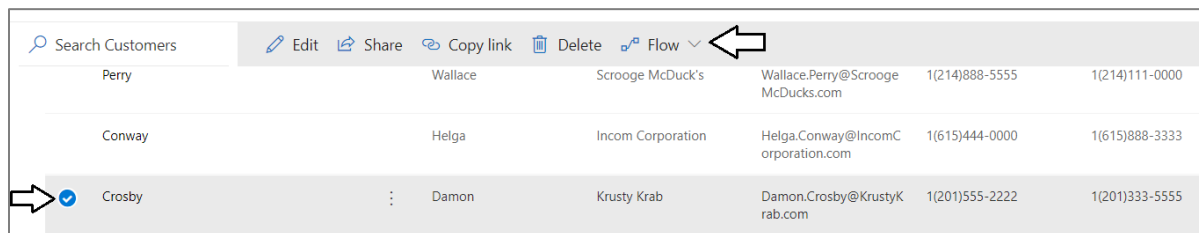


- l) Click the **Save** button at the bottom of the flow designer to save your work.

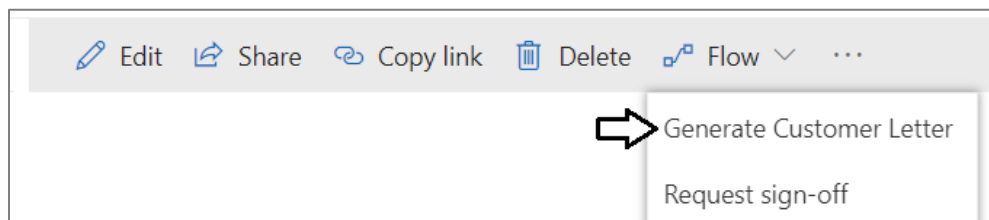


18. Test your work by select an item in the SharePoint **Customers** list and running the **Generate Customer Letter** flow.

- a) Navigate back to the **Customers** list in your SharePoint site.
b) Select one of the custom items is in the **Customers** list.
c) Drop down the **Flow** menu in the ribbon.



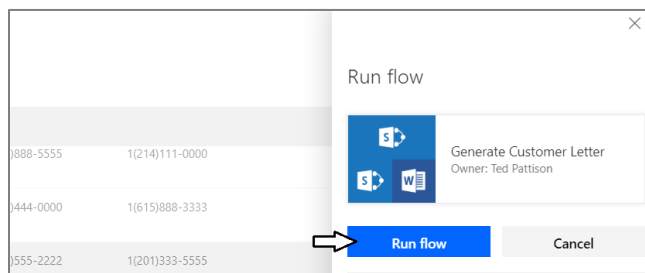
- d) From the **Flow** menu, select the flow named **Generate Customer Letter**.



- e) When the **Run Flow** pane appears, click **Continue**.



- f) Next, click **Run flow** to run the flow on the currently selected customer item.



g) You should see a notification telling you that the flow has started.



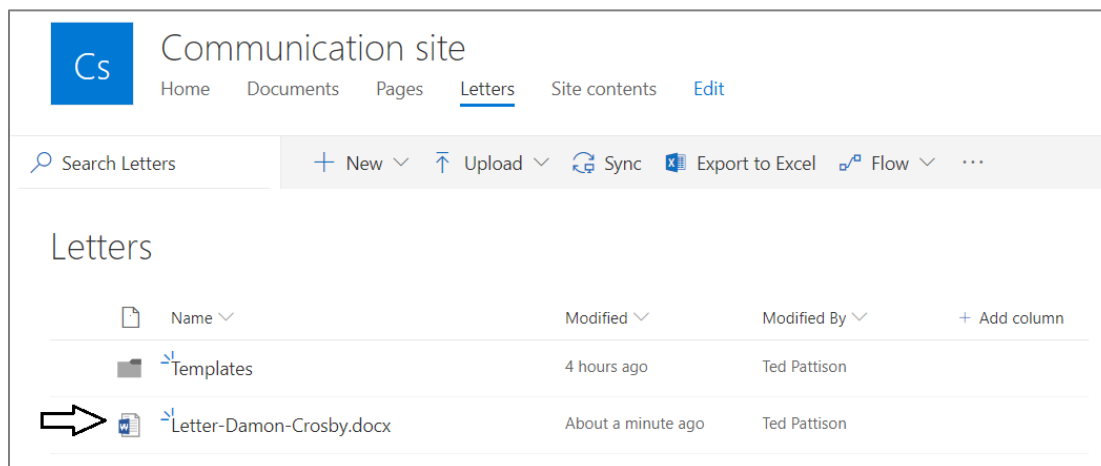
The screenshot shows a table with customer data. A notification bubble with an arrow points to the first row, stating "Started flow 'Generate Customer Letter'".

Name	Company	Email	Phone 1	Phone 2
Wallace	Scrooge McDuck's	Wallace.Perry@Scrooge McDucks.com	1(214)888-5555	1(214)111-0000
Helga	Incom Corporation	Helga.Conway@Incom Corporation.com	1(615)444-0000	1(615)888-3333
Damon	Krusty Krab	Damon.Crosby@KrustyKrab.com	1(201)555-2222	1(201)333-5555

h) After a few seconds, navigate to the **Letters** document library.

i) You should see that a new Word document has been created as a result of the flow running.

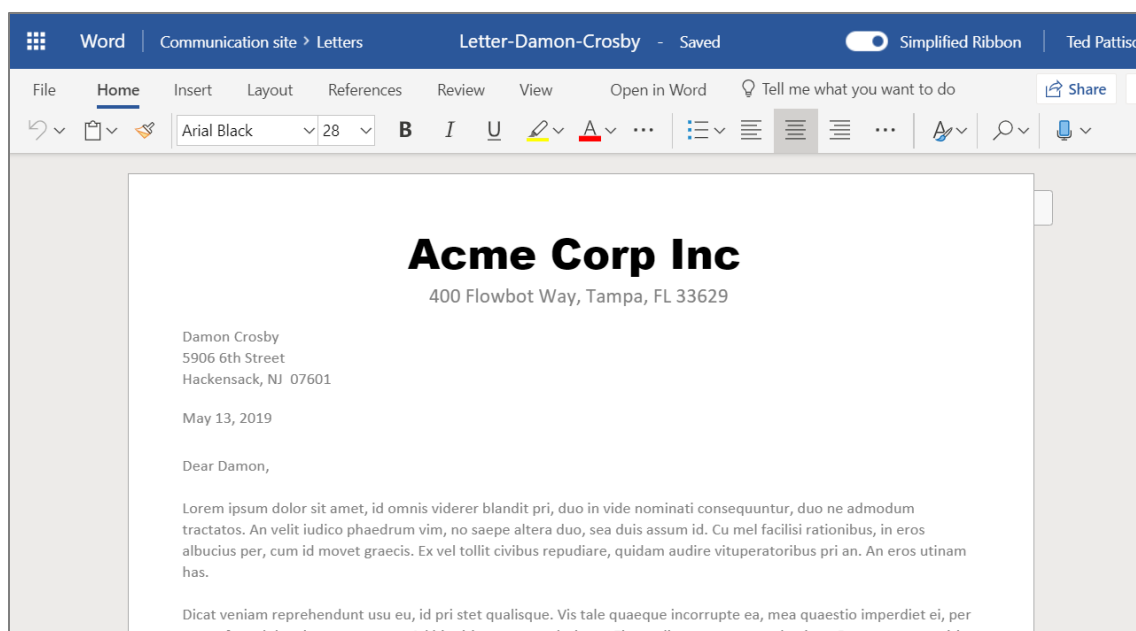
j) Click on the link to the new Word document to open it on Word Online.



The screenshot shows the 'Letters' document library. A new Word document, 'Letter-Damon-Crosby.docx', has been created and is highlighted with an arrow.

Name	Modified	Modified By
Templates	4 hours ago	Ted Pattison
Letter-Damon-Crosby.docx	About a minute ago	Ted Pattison

k) You should see that the new Word document has been generated with data from the selected customer item.



The screenshot shows a Microsoft Word document titled 'Letter-Damon-Crosby'. The document content is as follows:

Acme Corp Inc
400 Flowbot Way, Tampa, FL 33629

Damon Crosby
5906 6th Street
Hackensack, NJ 07601

May 13, 2019

Dear Damon,

Lorem ipsum dolor sit amet, id omnis viderer blandit pri, duo in vide nominati consequuntur, duo ne admodum tractatos. An velit iudico phaedrum vim, no saepe altera duo, sea dui assum id. Cu mel facilisi rationibus, in eros albus per, cum id movet graecis. Ex vel tollit civibus repudiare, quidam audire vituperatoribus pri an. An eros utinam has.

Dicit veniam reprehendunt usu eu, id pri stet qualisque. Vis tale quaeque incorrupte ea, mea quaestio imperdiet ei, per eu perfecto lobortis argumentum. Ad his viris appetere eloriat. Ei eos elit appareat complectitur. Duo novum aperiri.