

Microsoft Power Automate

Day 1

1. Introduction to Power Automate

Microsoft Power Automate is a cloud-based service that allows users to create automated workflows between various applications and services. It is designed to streamline repetitive tasks and integrate data across multiple platforms, without requiring coding or technical expertise.

Power Automate provides a visual interface that allows users to create workflows by dragging and dropping pre-built templates or customizing them according to their needs. Workflows can include a variety of actions, such as sending emails, creating tasks, updating data, triggering alerts, and more.

Power Automate also offers a range of connectors that enable integration with various apps and services, including Microsoft 365, Dynamics 365, SharePoint, OneDrive, Power BI, Salesforce, Twitter, and many others.

Overall, Power Automate is a powerful tool for automating business processes and increasing productivity by reducing manual work and improving collaboration between different teams and systems.

2. Setting up Lab Environment

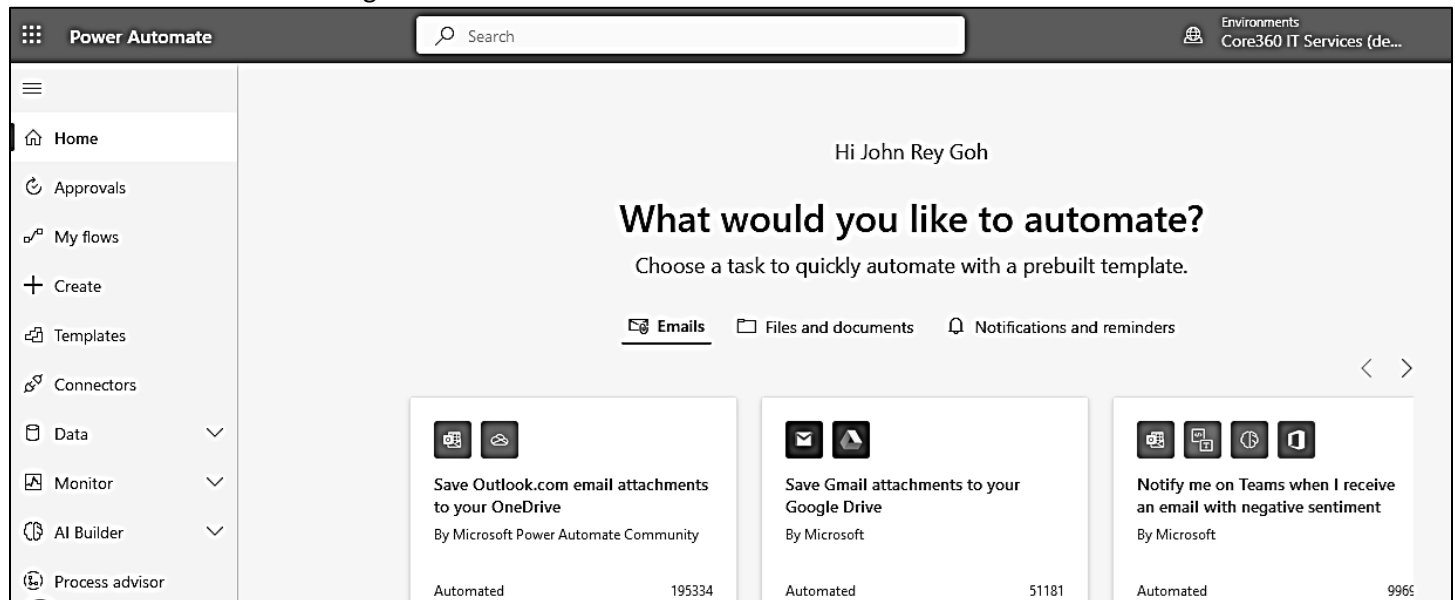
Creating an account:

<https://flow.microsoft.com/>

or

<https://powerautomate.microsoft.com/en-us/>

3. Basic Interface Walkthrough

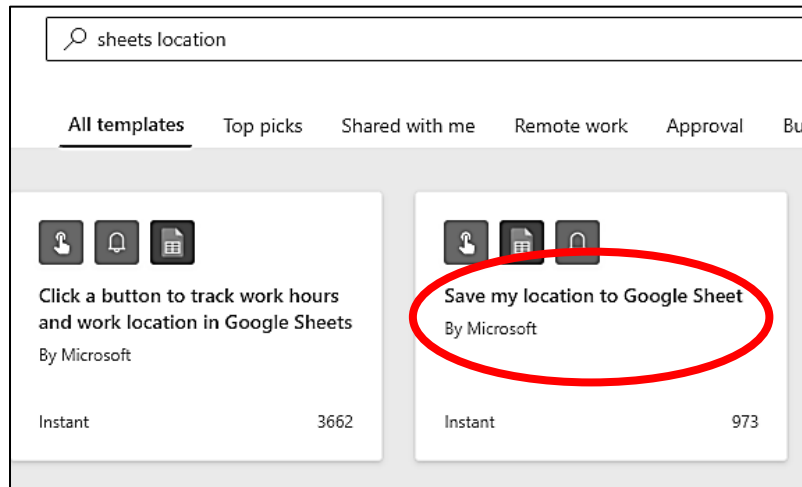


Note: Install Power Automate Desktop. You can get it from the My Flows menu item.

4. Creating a flow from a template

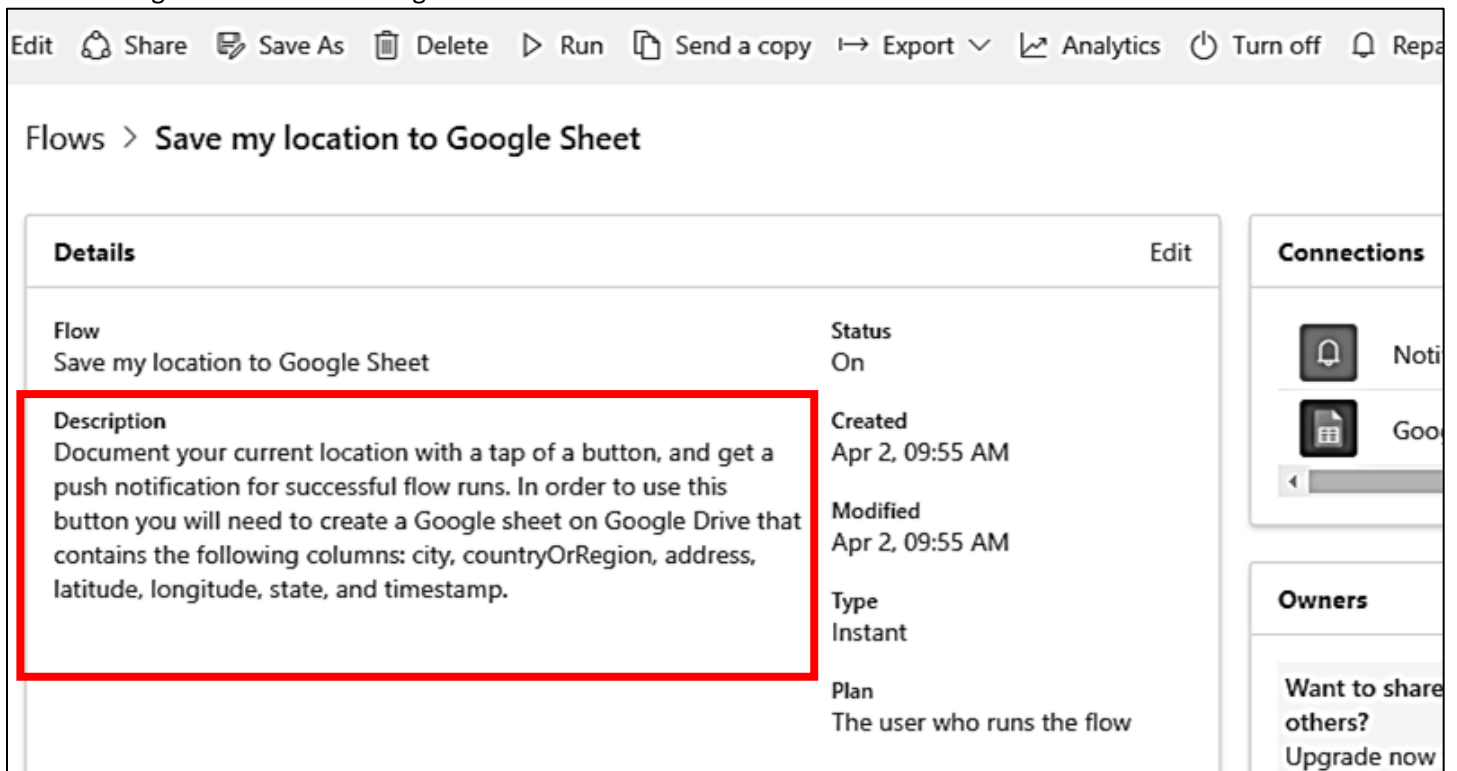
Activity 1: Send note through email with button click

- Install power automate desktop first
- Power automate→templates→search:



- Configure your flow

The following is the Flow Detail Page



d. Understanding Flow Template Structure

click edit to see flow template structure

et Undo Redo

Manually trigger a flow

+ Add an input

Insert row

*File /public_files/powerauto_mylocation

*Worksheet Sheet1

Send a push notification

*Text Full address x was documented Successfully!

Link Include a link in the notification

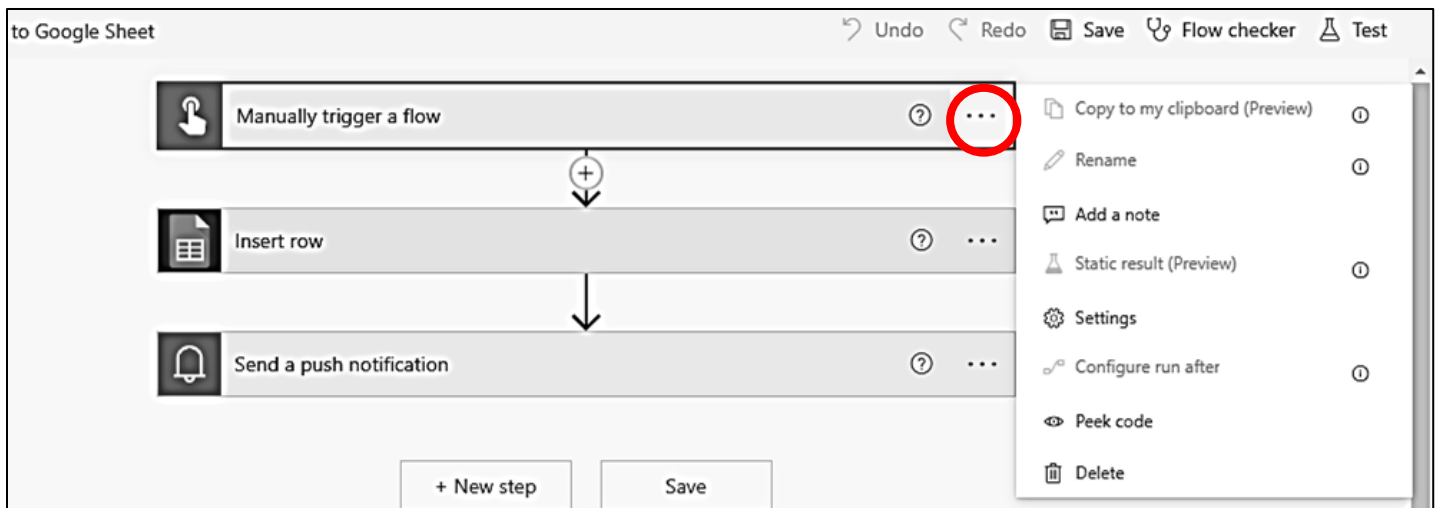
Link label The display name for the link

Manually trigger a flow

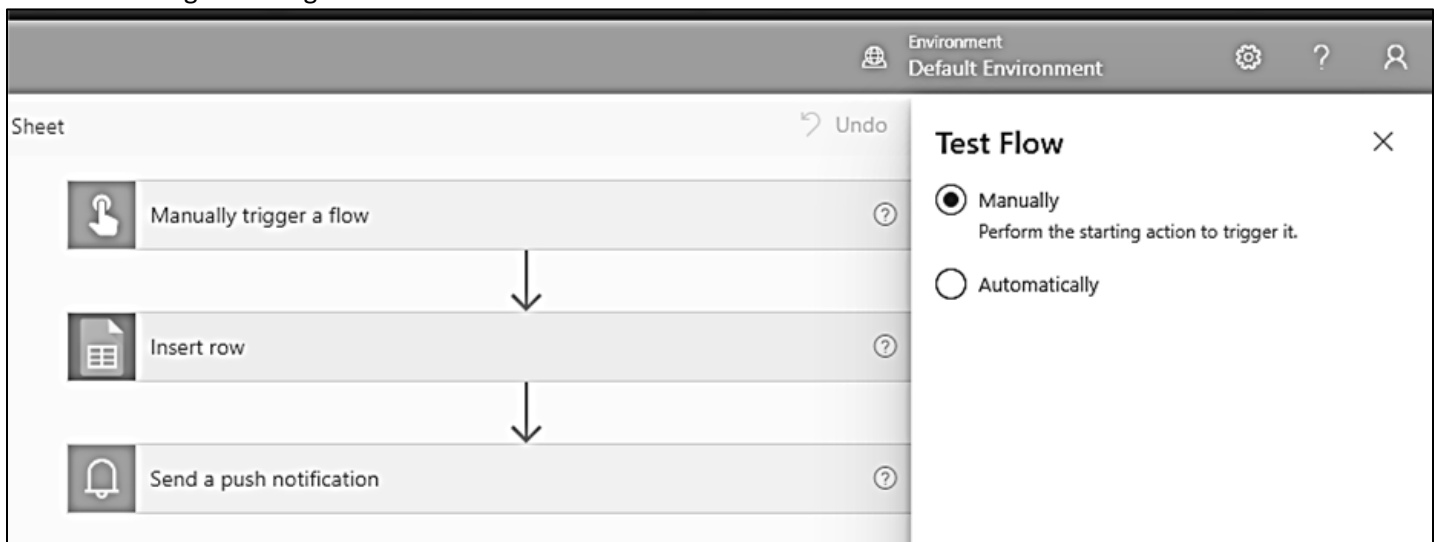
Insert row

*File	/public_files/powerauto_mylocation
*Worksheet	Sheet2
city	City x
countryOrRegion	Country/Region x
address	Full address x
latitude	Latitude x
longitude	Longitude x
state	State x
timestamp	Timestamp x

Send a push notification



e. Running & Testing Our First Flow



powerauto_mylocation ☆ Saved to Drive

File Edit View Insert Format Data Tools Extensions Help

100% 123 Default... 10 B I A

	A	B	C	D	E	F	G	H
	city	countryOrRegion	address	latitude	longitude	state	timestamp	PowerAppId
	Quezon City	Philippines	102 Seminary Road, Bahay Toro, Que	14.6646	121.0175	National Capital	2023-04-02T02:	461ed32835d44439

Activity 2: Create an instant flow that will upload picture to google drive with a button click (template)

5. Creating an Automated Flow from a Template

Activity 3: Log Gmail emails to a Google Sheet

Activity 4: Log all file changes on your PC to Google Sheets

Note:


- ✓ Learn to check status of automated flows
- ✓ Turn on or off automated flow
- ✓ Monitor run history

6. Creating a flow from scratch

Activity 5: Recreate Activity 3 manually from scratch.

- Power automate → create → automated cloud flow
- Provide a flow name and set trigger, then click create

Build an automated cloud flow



Free yourself from repetitive work just by connecting the apps you already use—automate alerts, reports, and other tasks.

Examples:

- Automatically collect and store data in business solutions
- Generate reports via custom queries on your SQL database

Flow name


log gmail to gsheet


Choose your flow's trigger * ⓘ


Search or select a trigger from the list below to create a flow. (Required)


🔍 gmail


☒

 When a new email arrives
Gmail ⓘ

 When an email is flagged (V3)
Office 365 Outlook ⓘ

 When a new email arrives (V3)
Office 365 Outlook ⓘ

 When an email is flagged (V2)
Outlook.com ⓘ

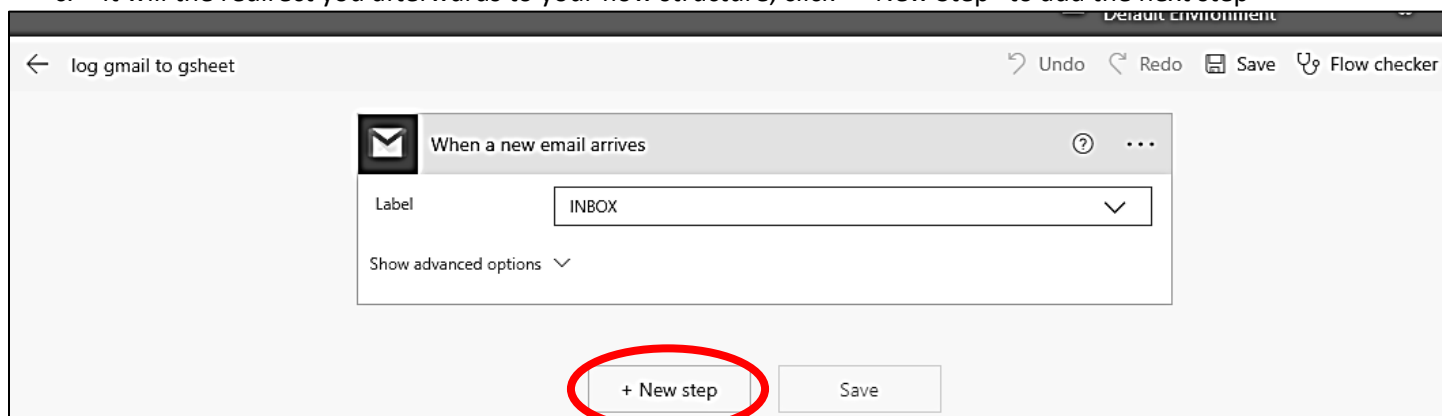
 When a new email arrives (V2)
Outlook.com ⓘ

Skip

Create

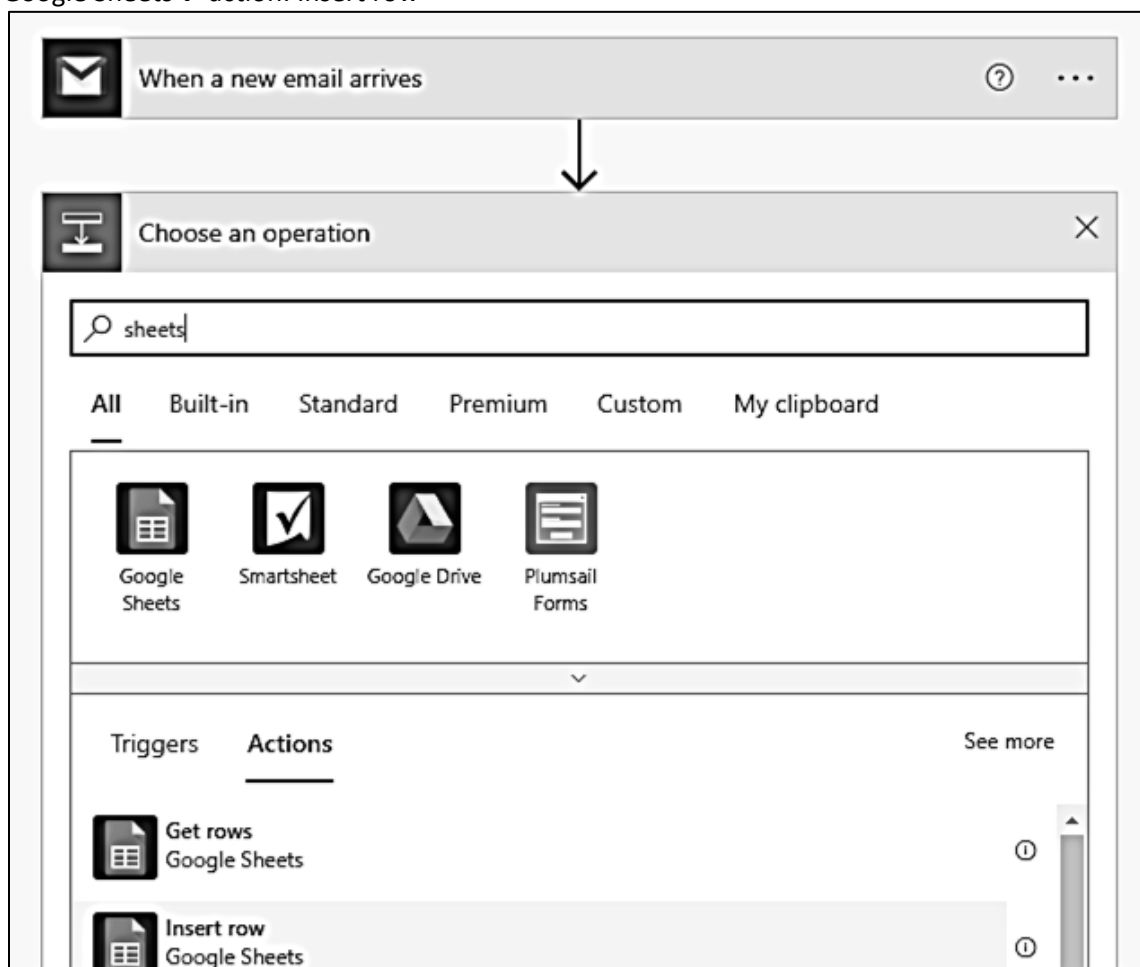
Cancel

c. It will the redirect you afterwards to your flow structure, click “+ New Step” to add the next step



d. Select an operation the choose an action

Operation: Google Sheets→ action: Insert row



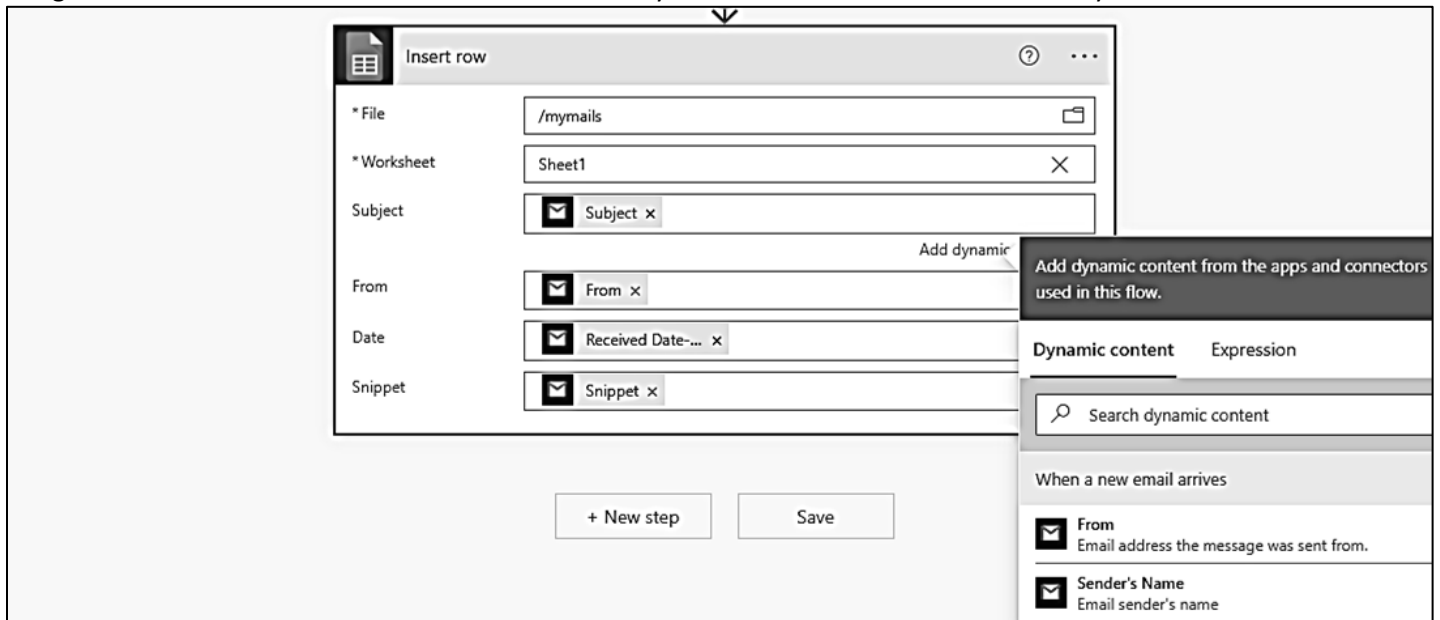
- e. The flow will then appear as follows:

The screenshot shows a flow with two steps. The first step is a trigger labeled 'When a new email arrives' with an envelope icon. An arrow points down to the second step, an action labeled 'Insert row' with a spreadsheet icon. The 'Insert row' action has two input fields: '* File' with the placeholder 'Pick a file.' and a folder icon, and '* Worksheet' with the placeholder 'Pick a worksheet.' and a dropdown arrow. At the bottom of the flow editor are two buttons: '+ New step' and 'Save'.

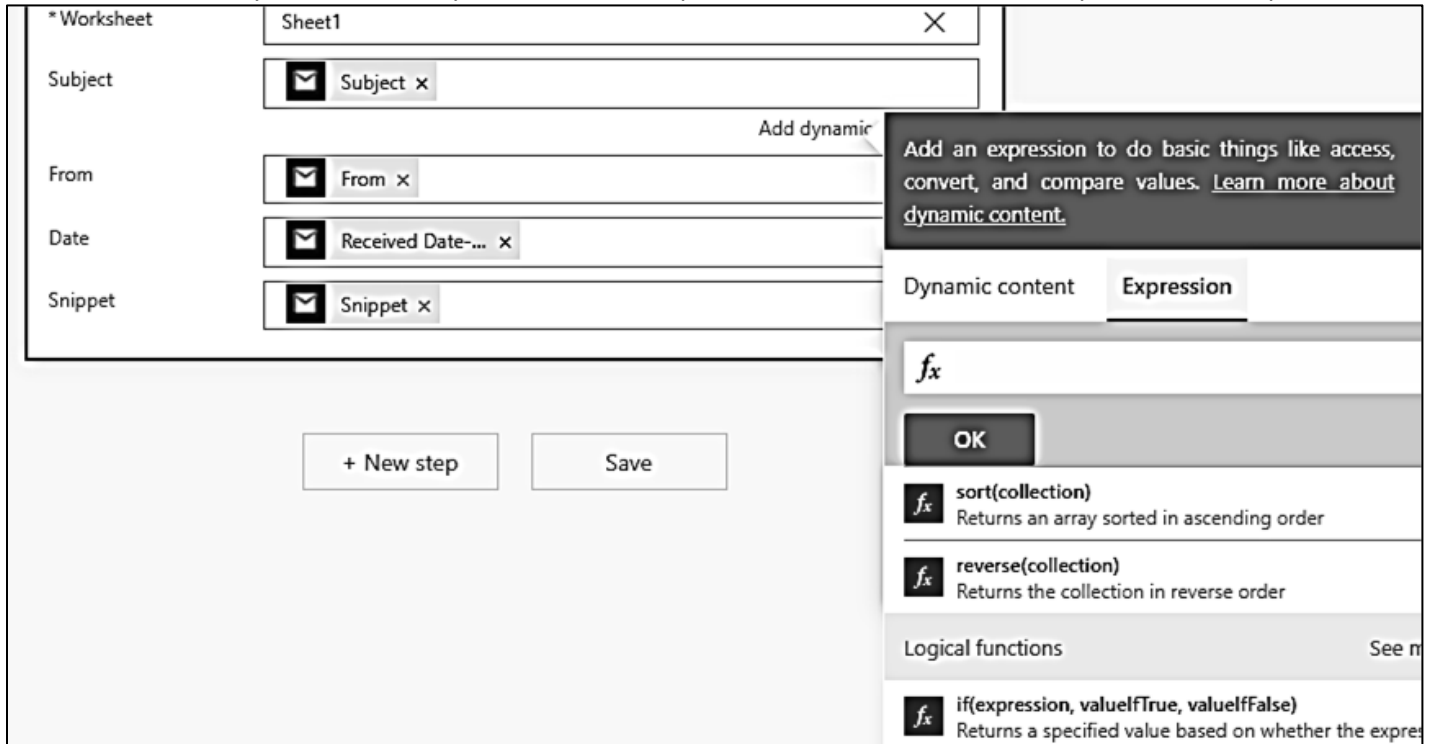
- f. When you open you flow structure, you can see and set what it will collect

The screenshot shows the configuration for the 'When a new email arrives' trigger. It includes several fields for filtering emails: 'Label' (set to 'INBOX'), 'To' (placeholder: 'A list of valid email addresses separated by a semicolon or a comma.'), 'From' (placeholder: 'Example: Sender1 | sender2@domain.com.'), 'Subject' (placeholder: 'String to look for in the subject.'), 'Importance' (set to 'All'), 'Starred' (set to 'All'), 'Has Attachments' (set to 'No'), and 'Include Attachments' (set to 'No'). Each of the last four fields has a dropdown arrow. At the bottom of the configuration panel is a link 'Hide advanced options' with an upward arrow. Below the configuration panel is a plus icon in a circle with a downward arrow, indicating the flow continues to the next step, which is partially visible as 'Insert row'.

g. You can choose which values to use and set in you action. These are what we call dynamic content.

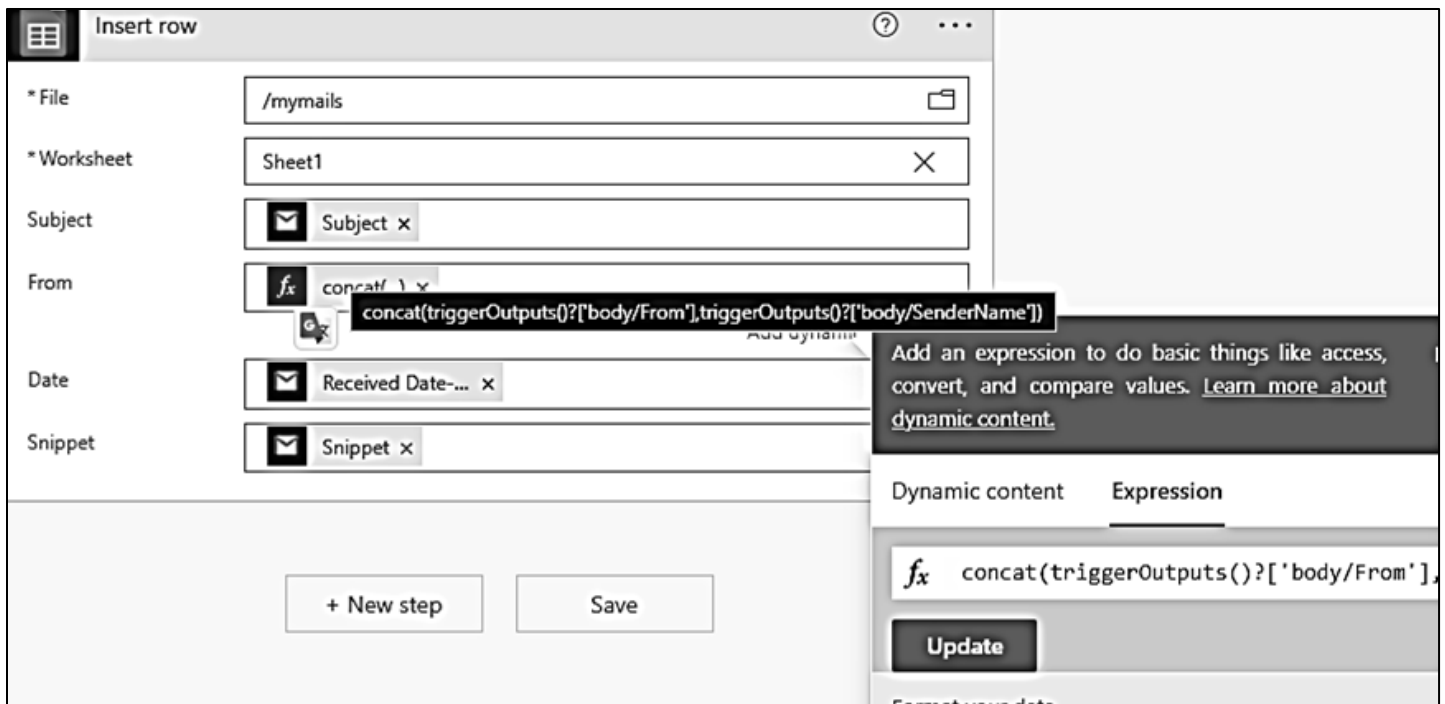


h. Aside from dynamic content, you can also use expressions to add basic value manipulation techniques

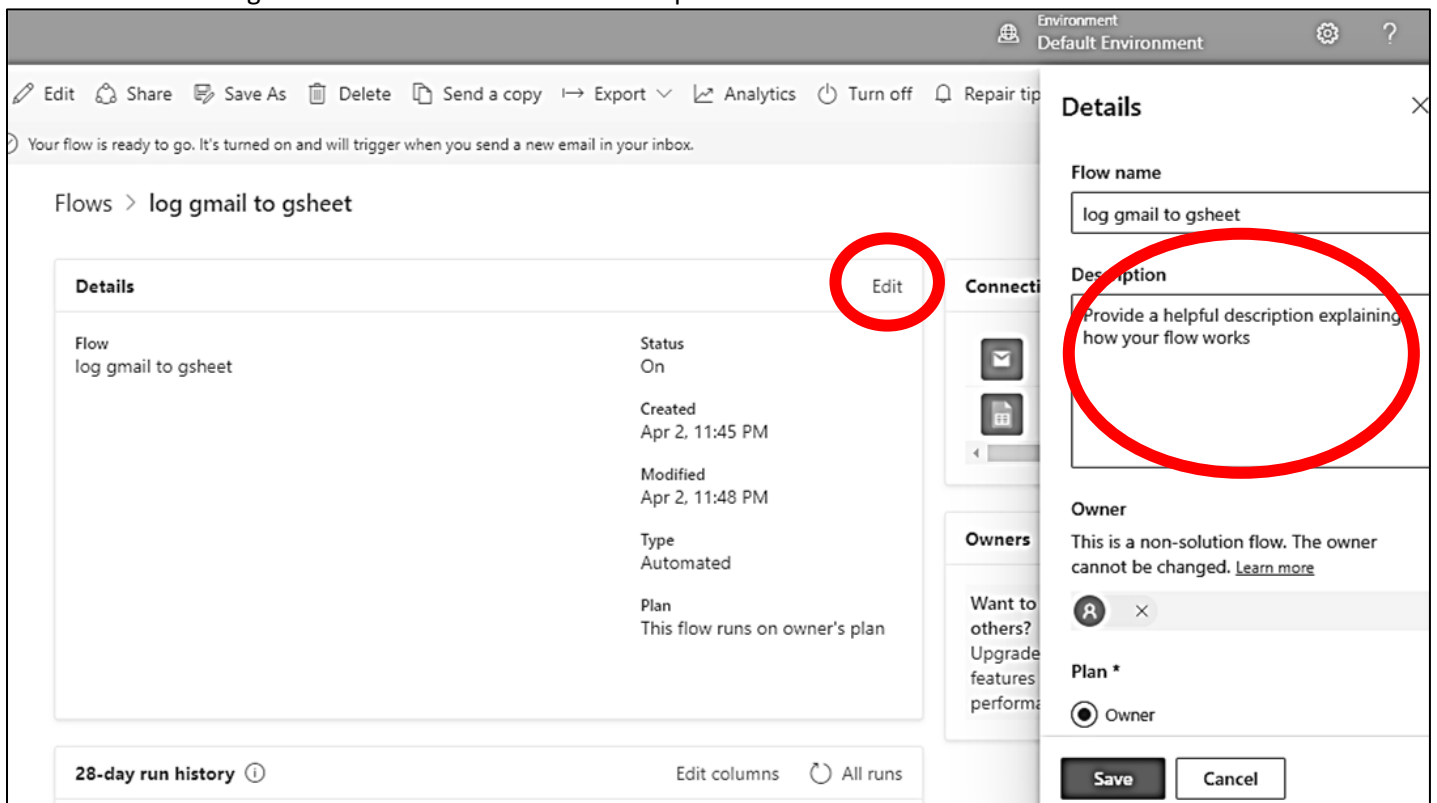


i. Let us try using a concat expression

- Click the FROM parameter → delete the existing dynamic content
- Click the expression → select concat
- Then navigate back to the dynamic expression to add the parameters for the concat expression



- j. Test if working
- k. You can the go back to flow detail and set description



Activity 6: Send gmail when a file created in onedrive

Activity 7: Send gmail when Microsoft teams action (mentioned/add-remove members) are done

Activity 8: Send email reminder to visit a site or fill up an online form

Activity 9: Email myself a note with a button click

Activity 10: Send email when file uploaded in OneDrive

Day 2

7. Adding Multiple Action Steps & Using Trello as a Connector in Power Automate

- Activity 11: Button click to upload picture to OneDrive/GDrive, send an email notification and log to excel online/gsheets
- Activity 12: Log file deletion in OneDrive/GDrive to Excel online/GSheets then send custom email
- Activity 13: Select field responses from MS Forms, make an entry in Excel Online/GSheets and send custom email after submission of MS Form.
- Activity 14: Create a Planner task when an MS Form is submitted.

8. Setting Up Due Date Dynamically Using Expressions & Date Functions

Activity 15: MS Form submission adds item to sharepoint lists and automatically populates other sharepoint date columns not filled in the MS Form (ex. Due Date, Expiration Date, Shipping Date)

9. Getting Started with Built-In Control Functions in Power Automate

Activity 16: MS Form to implement conditional value checking to which Excel File it will be recorded.

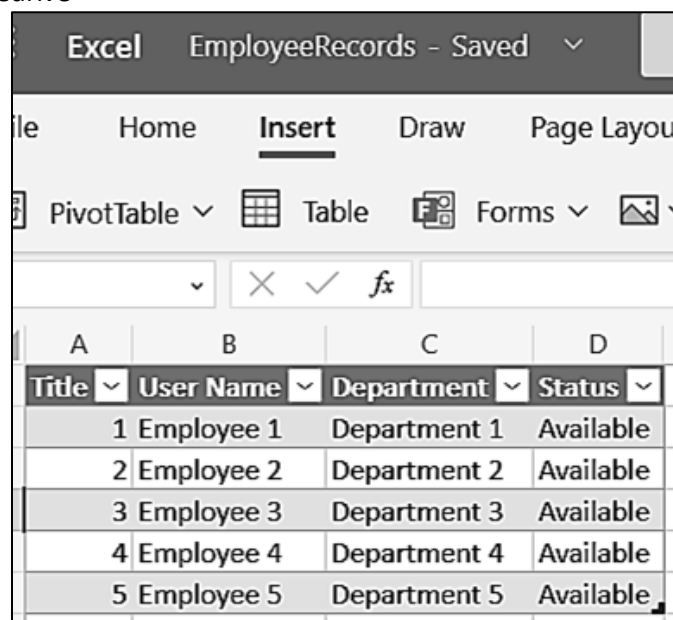
Activity 17: Looping over sharepoint list to delete each value and repopulates it from an excel online file

Activity 18: MS Form submission recorded in excel and sharepoint, ms form field value implements conditional checking if it will be sending email notif to admin

10. Creating Our First Scheduled Flow

Activity 19: Add/Update Excel Data to SharePoint List

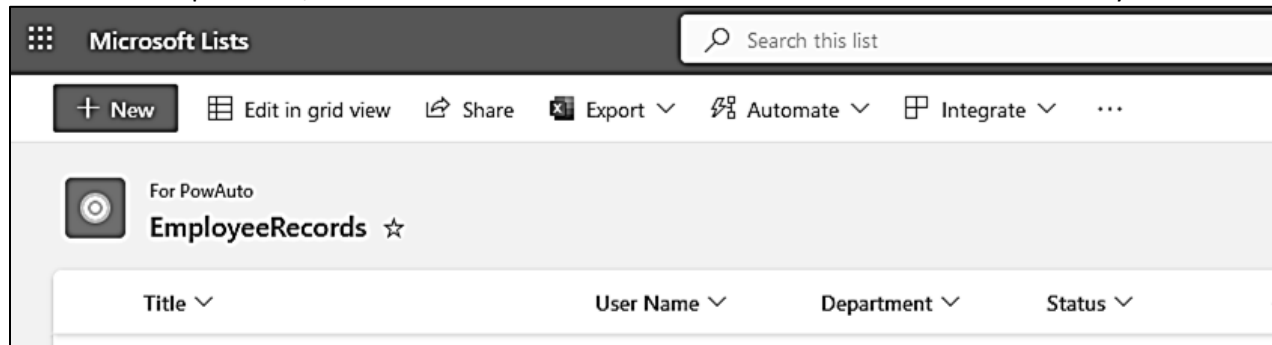
a. Create excel data in onedrive



The screenshot shows an Excel spreadsheet with the title bar 'Excel EmployeeRecords - Saved'. The ribbon includes 'Home', 'Insert', 'Draw', and 'Page Layout'. The 'Insert' tab is active, showing options for 'PivotTable', 'Table', 'Forms', and 'Image'. Below the ribbon is a formula bar with a dropdown arrow, a clear button (X), a checkmark, and a formula icon (fx). The spreadsheet contains a table with 4 columns: 'Title', 'User Name', 'Department', and 'Status'. Each column header has a dropdown arrow. The table has 5 rows of data, numbered 1 to 5 in the first column. Each row contains an employee number, name, department, and status.

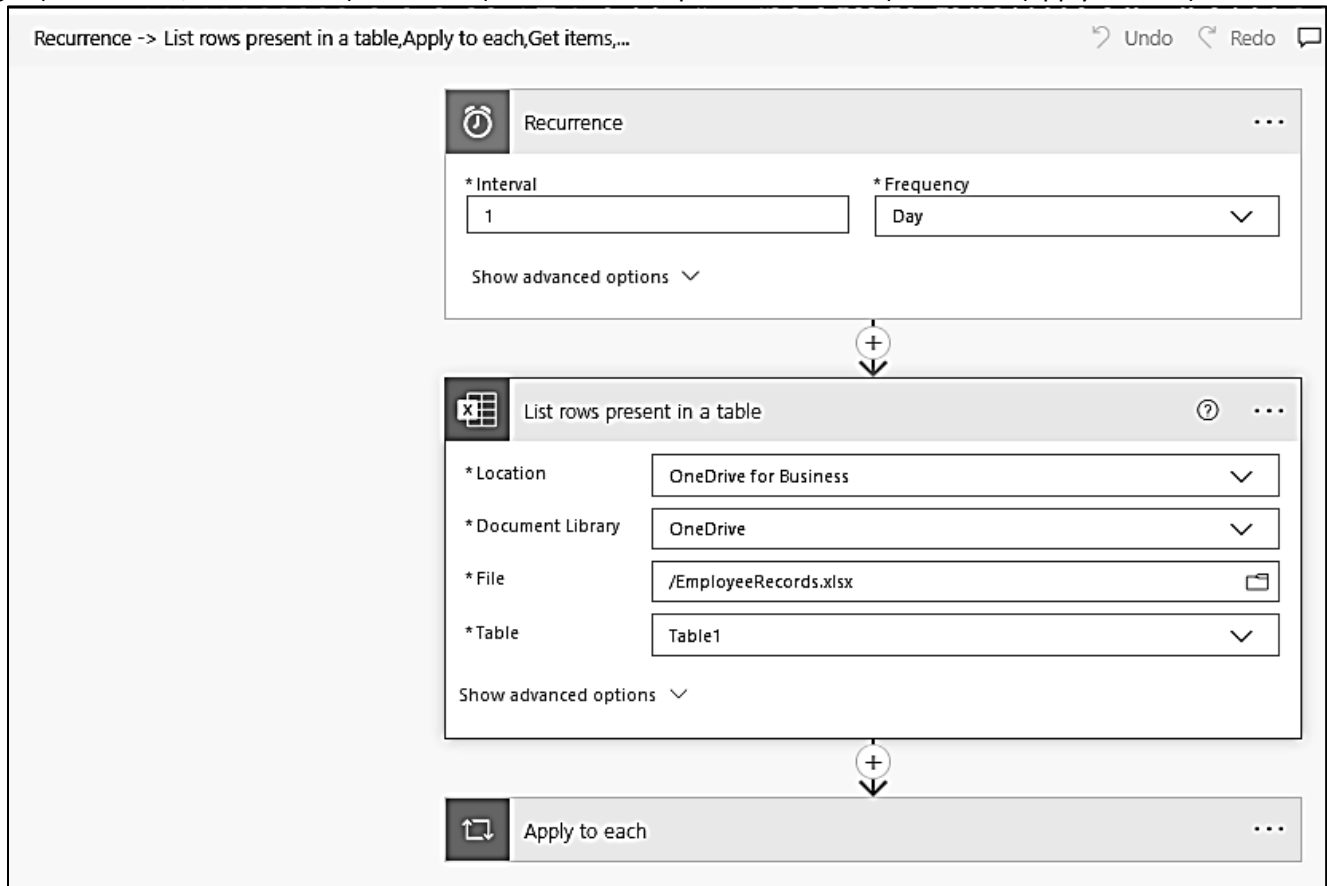
Title	User Name	Department	Status
1	Employee 1	Department 1	Available
2	Employee 2	Department 2	Available
3	Employee 3	Department 3	Available
4	Employee 4	Department 4	Available
5	Employee 5	Department 5	Available

- b. Create a sharepoint site, then create a blank list inside with the same columns as the one in your excel table



- c. Create a Scheduled flow:

Trigger (Recurrence, set Schedule)→action1 (Excel - list rows present in a table)→action2 (apply to each)



→action2(apply to each (value) →sub-action1 (sharepoint-get items), note of the Filter Query **Title eq [Title]**

Apply to each

value x

Get items

* Site Address
For PowAuto - https://core360itservices.sharepoint.com/sites/ForPowAuto

* List Name
EmployeeRecords

Limit Entries to Folder
Select a folder, or leave blank for the whole list

Include Nested Items
Return entries contained in sub-folders (default = true)

Filter Query
Title eq Title x

Order By
An ODATA orderBy query for specifying the order of entries.

Top Count
Total number of entries to retrieve (default = all).

Limit Columns by View
Avoid column threshold issues by only using columns defined in a v

Hide advanced options ^

→ under (sharepoint-get items) → add action (control-condition),
Set if length([value]) is not equals to 0 then set results for IF YES and IF NO

Get items

Condition

length(...) x

is not equal to

0

+ Add v

If yes

Apply to each 2

If no

Apply to each 3

The image shows two side-by-side panels of a Power Automate flow configuration, representing the 'If yes' and 'If no' branches of a conditional logic step.

If yes branch:

- Apply to each 2:** Select an output from previous steps: value x.
- Update item:**
 - *Site Address: For PowAuto - https://core360itservices.sharepoint.com/sites/ForPowAuto
 - *List Name: EmployeeRecords
 - *Id: ID x
 - Title: Title x
 - User Name: User Name x
 - Department: Department x
 - Status: Status x
 - Show advanced options: (dropdown arrow)

If no branch:

- Apply to each 3:** Select an output from previous steps: value x.
- Create item:**
 - *Site Address: For PowAuto - https://core360itservices.sharepoint.com/sites/ForPowAuto
 - *List Name: EmployeeRecords
 - Title: Title x
 - User Name: User Name x
 - Department: Department x
 - Status: Status x
 - Show advanced options: (dropdown arrow)

Activity 20: Calculate the sum of a numeric column in sharepoint list then email the result on a scheduled recurrence.

Activity 21: Calculate the sum, average, min, and max of a numeric column in excel then email the result on a scheduled recurrence

Activity 22: create an automated flow that adds an entry to sharepoint list from MS form only if the employee id is found in a given excel column

11. Requirements to Get Started with Desktop Flows

- Installing Required Browser Extensions for Desktop Flows
- Installing & Setting Up Power Automate Desktop
- Desktop Flow Environment Walkthrough
- Creating Our First Desktop Flow Using Desktop Recorder
- Error Handling While Running Desktop Flows
- Editing or Modifying Parameters of Desktop Flows
- Testing Modified Parameters in Desktop Flows
- Creating Dialog Box for Getting User Input in Desktop Flows
- Integrating User Inputs in Desktop Flows
- Integrating Input Variables & Testing Inputs in Desktop Flows

Activity 23: Demo sample desktop automation

Activity 24: Demo sample web automation

Activity 25: Demo sample recorded automation

Day 3

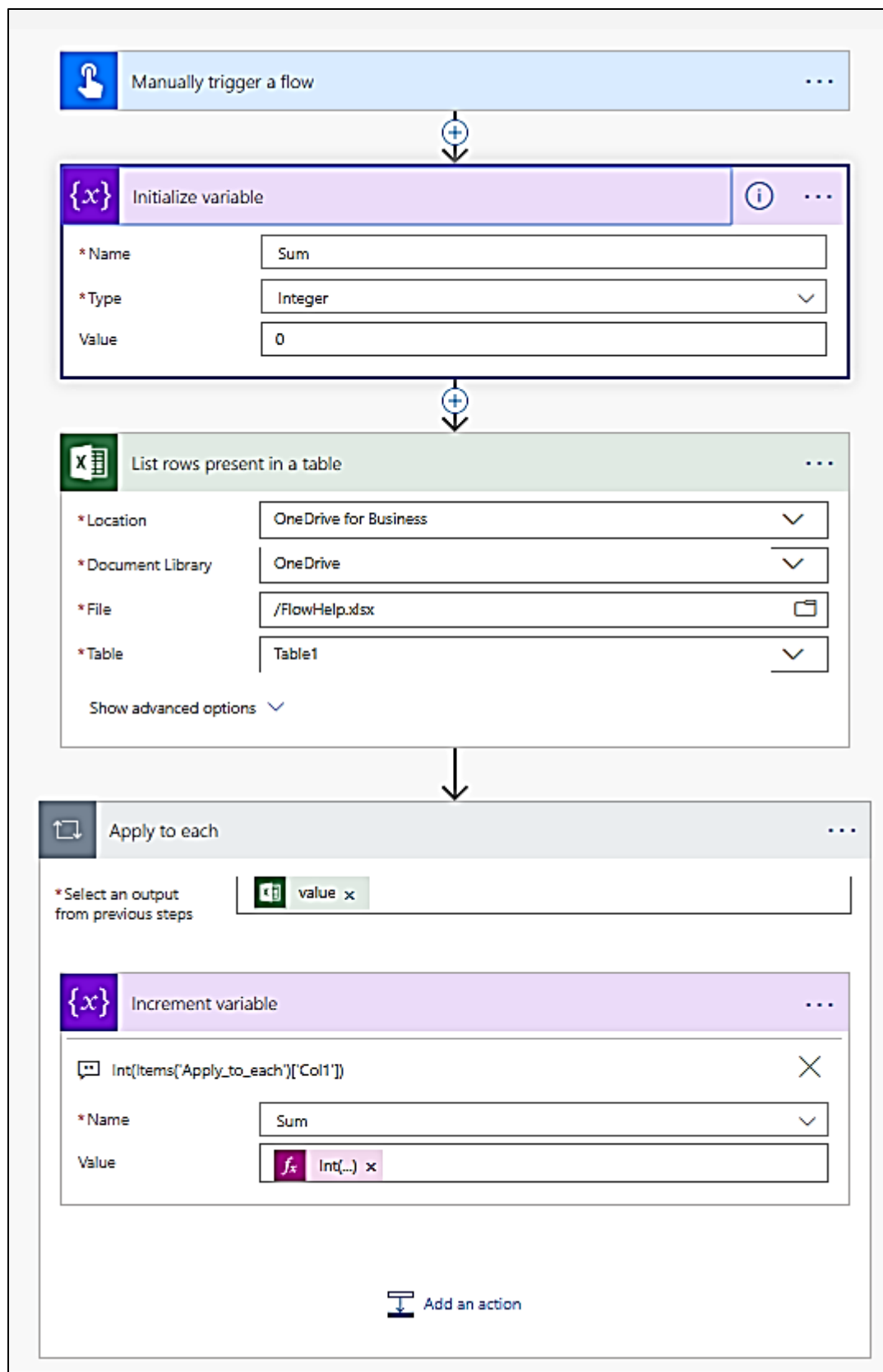
12. More Activities

Activity 26: Scheduled Automation Adding / updating SP List from Excel

Activity 27: Request Manager Approval for Leave

Activity 28: Start an approval when a file is added to OneDrive

Activity 29: Calculate the sum of a numeric column in sharepoint list then email the result on a scheduled recurrence.



Note:
Increment variable value: `int(item())?['Sales Amount']`

Activity 30: Calculate the sum, average, min, and max of a numeric column in excel then email the result on a scheduled recurrence

The screenshot displays a Power Automate flow with three steps connected by arrows:

- Manually trigger a flow** (Blue header)
- Initialize variable** (Purple header)
 - Name:** Max Sales
 - Type:** Integer
 - Value:** 0
- List rows present in a table** (Green header)
 - Location:** OneDrive for Business
 - Document Library:** OneDrive
 - File:** /Purchase Order.xlsx
 - Table:** Table1
 - [Show advanced options](#)

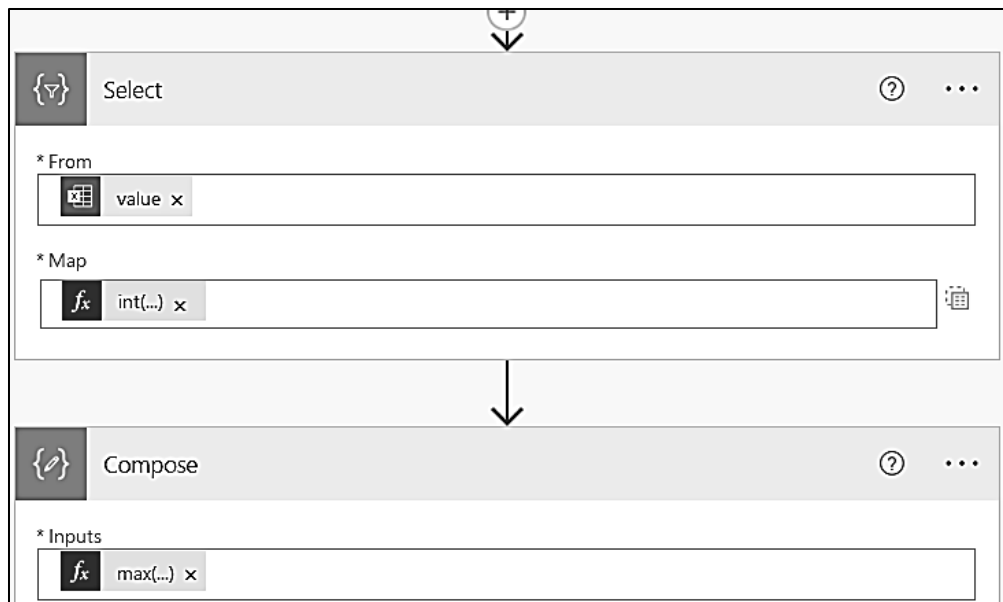
Note(s):

[select step]

- Click the icon on its right to change to text mode
- `int(item()?['sales amount'])`

[compose step]

- `max(body('Select'))`



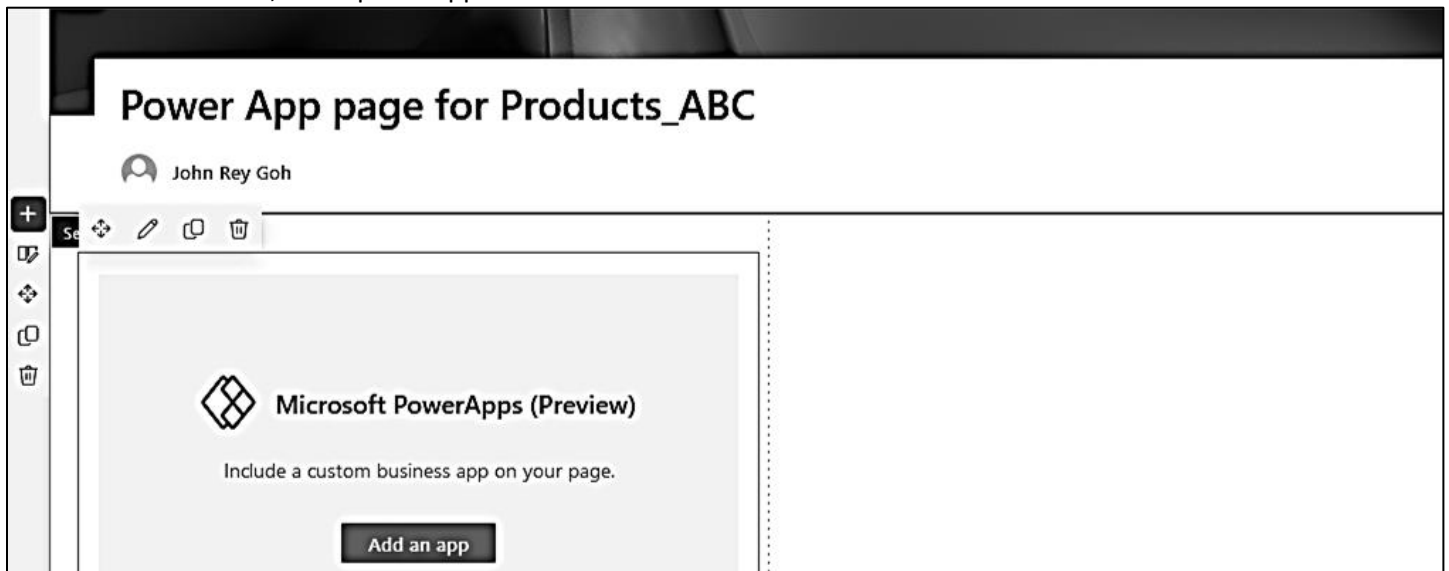
Activity 31: Create a Trello card when a channel post starts with 'TODO'

Activity 32: Create a Trello card for the selected item in SharePoint

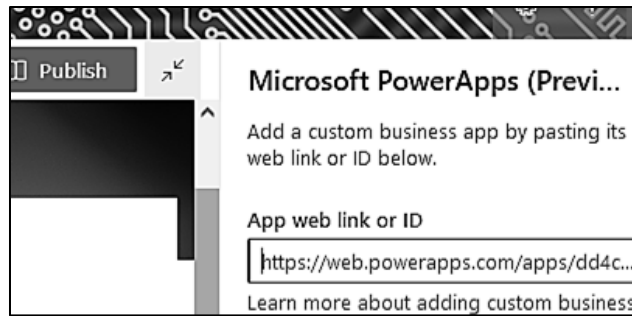
13. Power Apps

Activity 33: Power Automate + Power Apps with SharePoint List

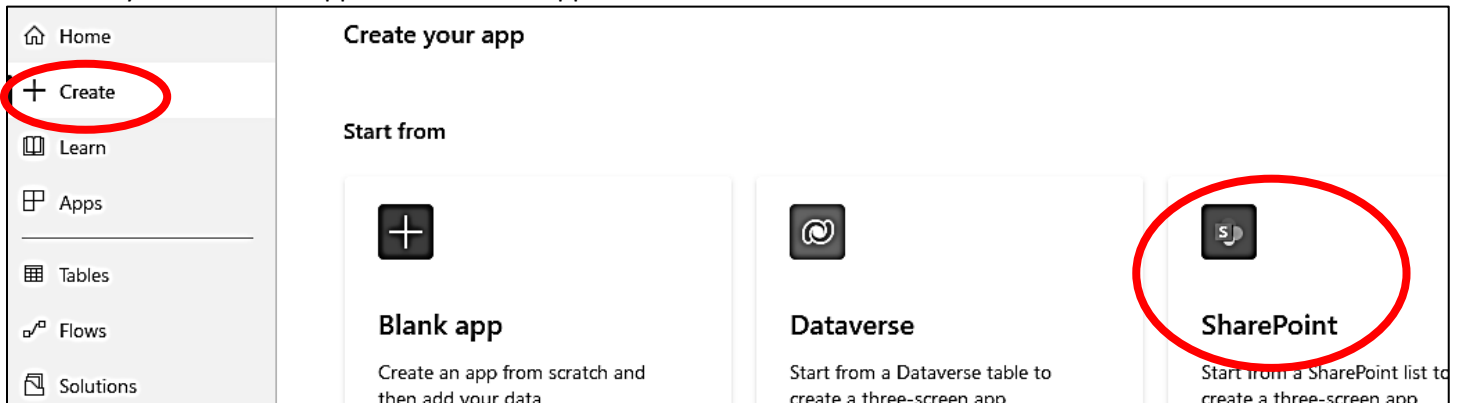
- Create a sharepoint site and a sharepoint list
- In your sharepoint site, add a page and a section where you will place your powerapp
- in the new section, add a powerapp as follows:



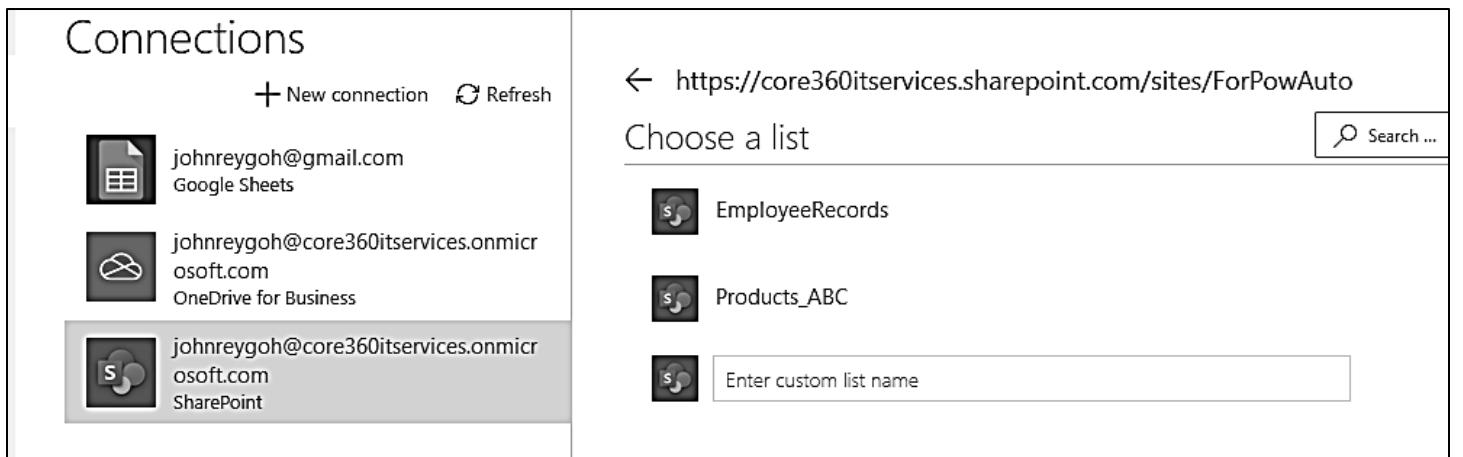
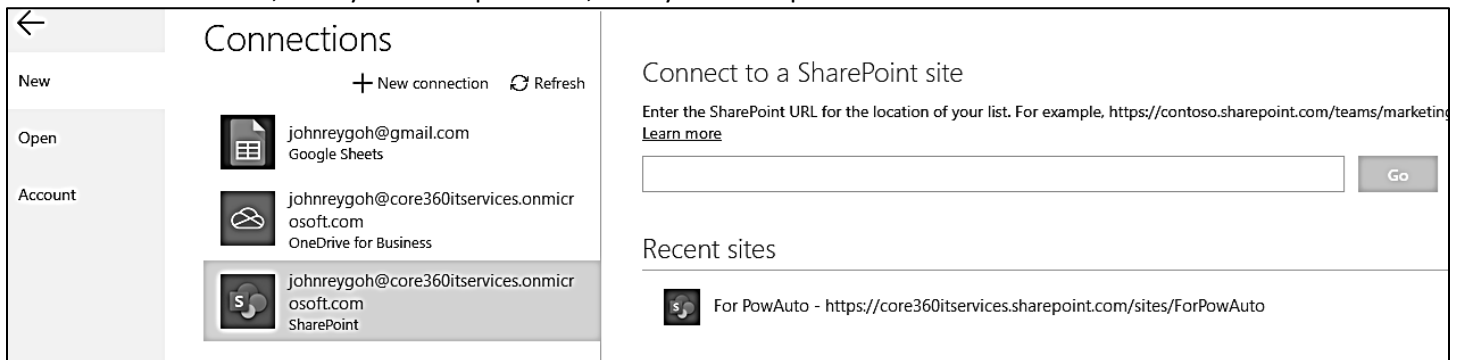
- click the "add an app button" and it will ask for a link of our app so we will create our app in MS PowerApps



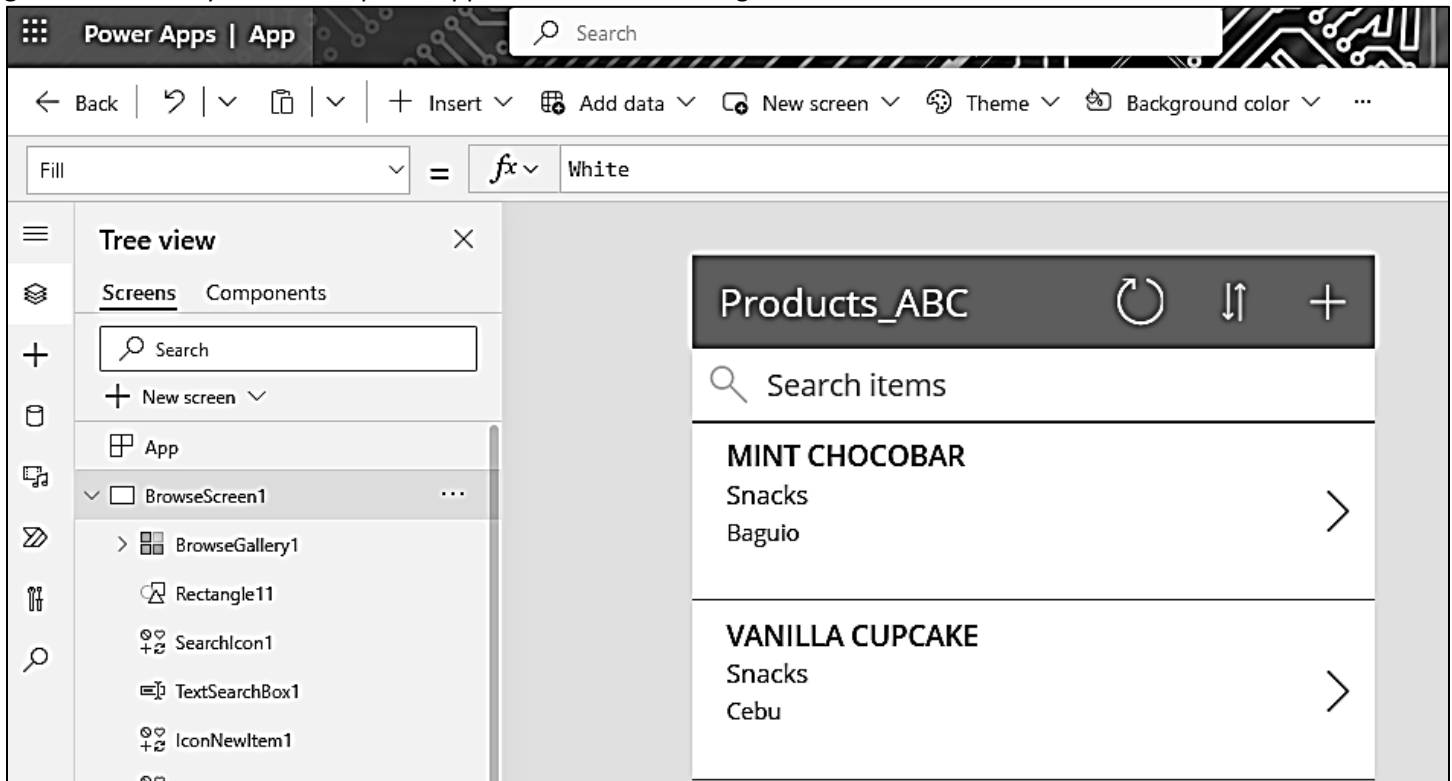
e. Go to your MS PowerApps and create an app for SharePoint



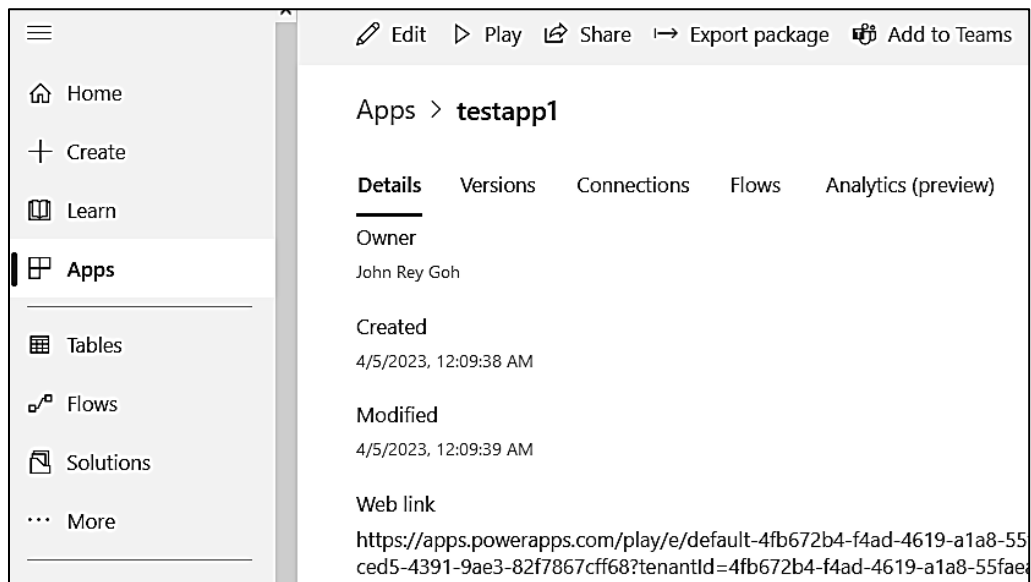
f. Select a connector, then your sharepoint site, then your sharepoint list

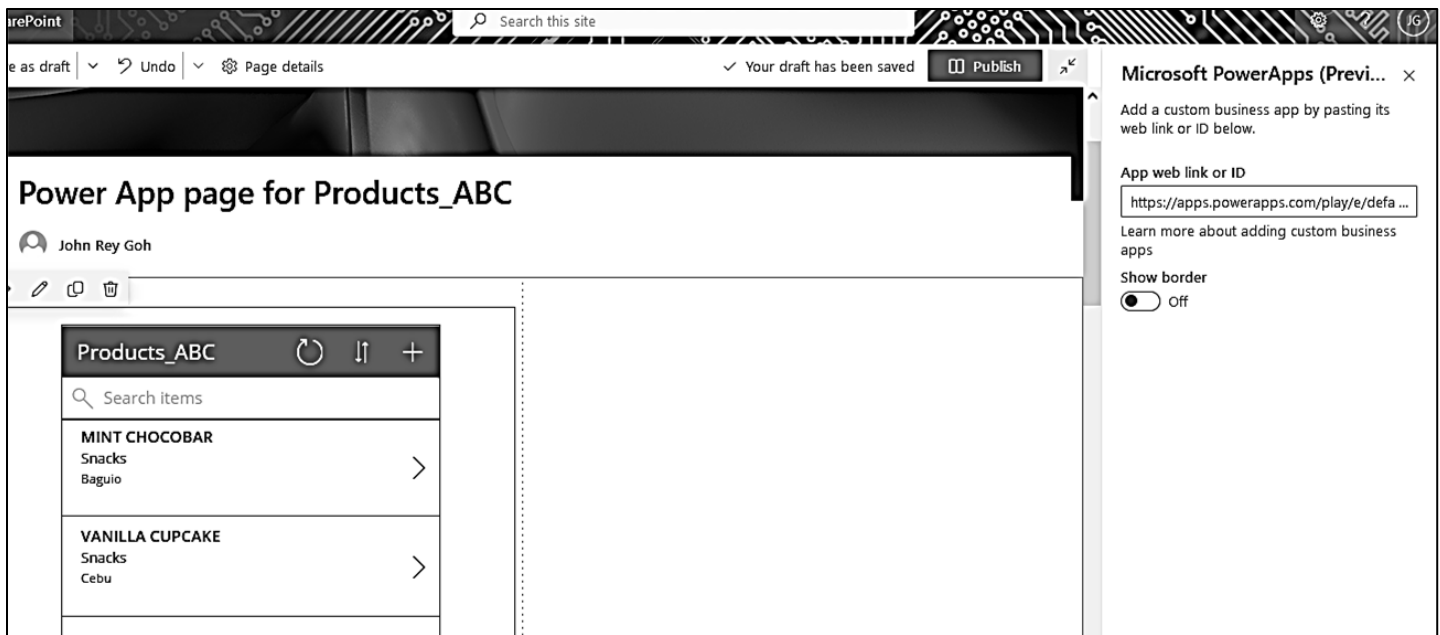


g. It will then try to create a powerapp to handle data management

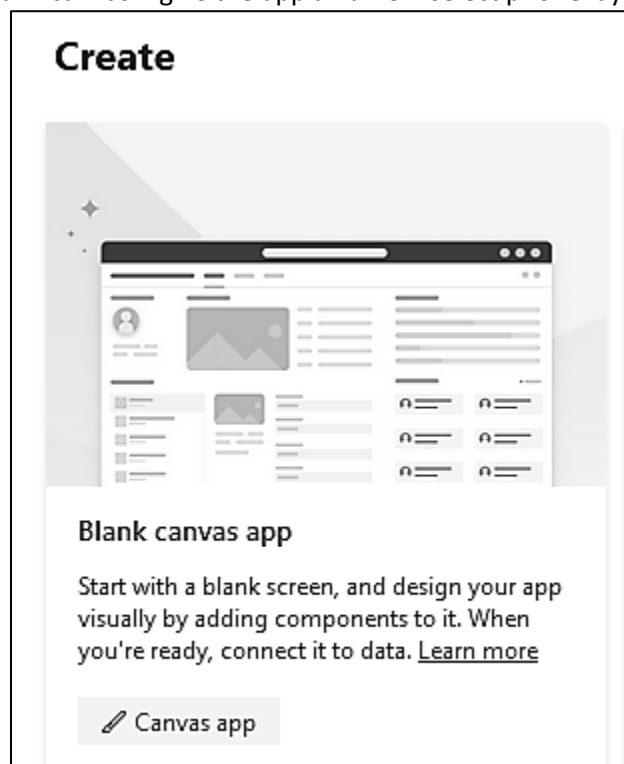


h. Once the app has been created, click on share to get the web link then paste it on the sharepoint page section earlier.

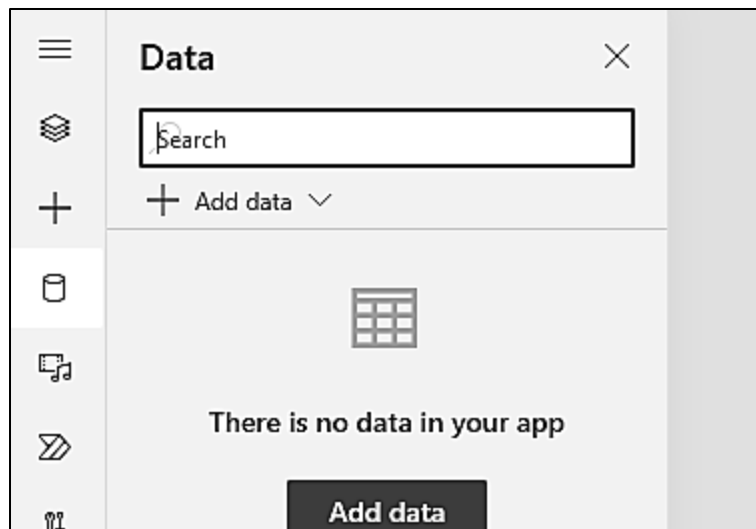




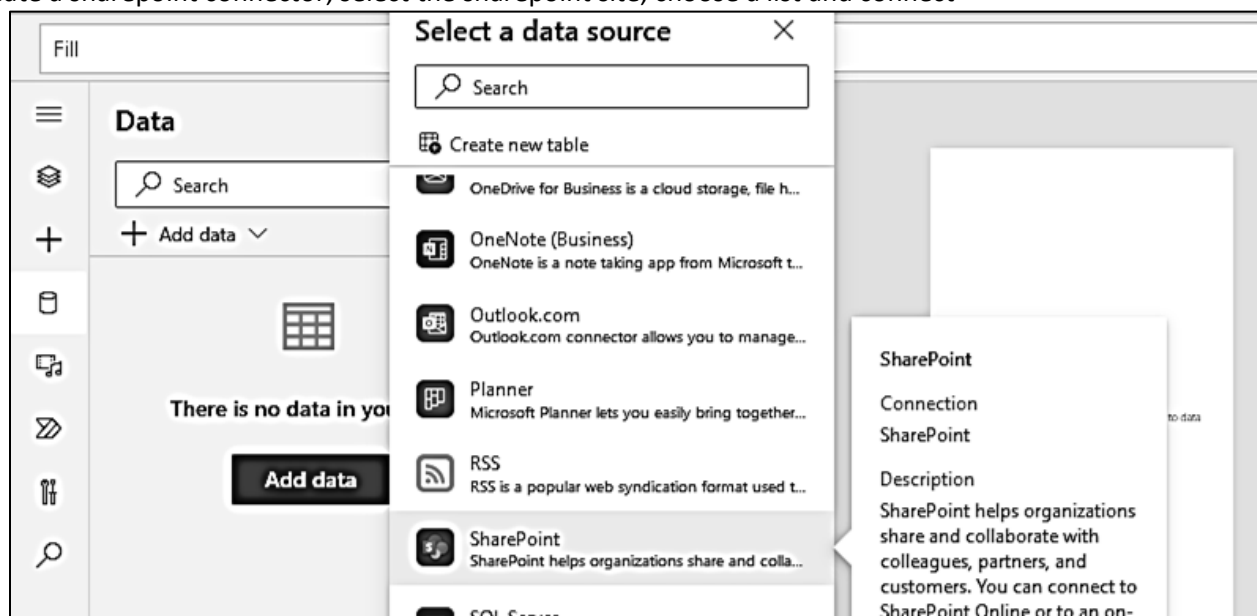
- i. Test it after publishing the page
- j. Now let us try creating a powerapp app from scratch,
powerapp→create blank→blank canvas→give the app a name→select phone layout



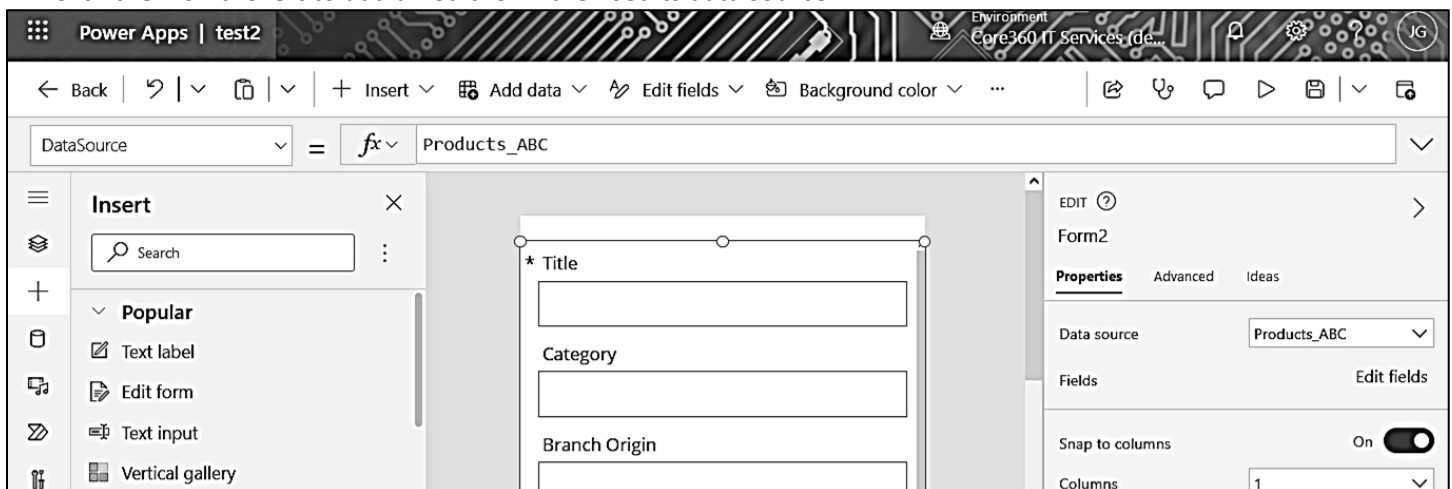
- k. Now click on data to add a data connector



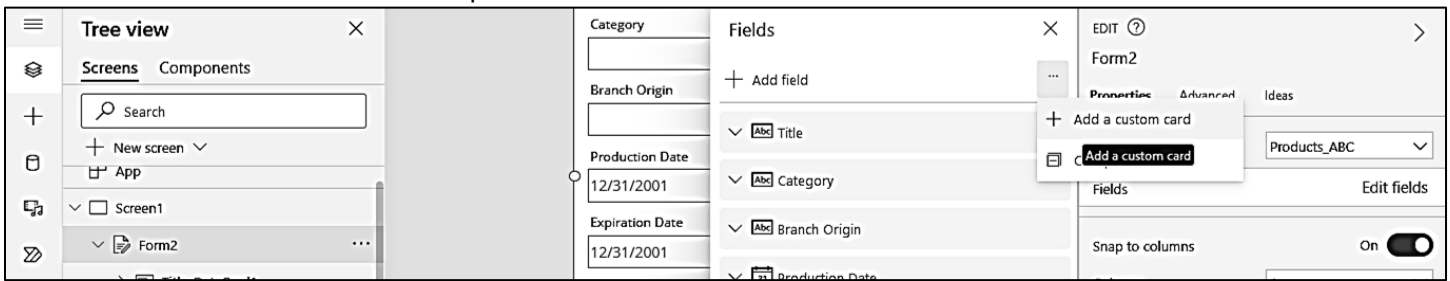
l. Create a sharepoint connector, select the sharepoint site, choose a list and connect



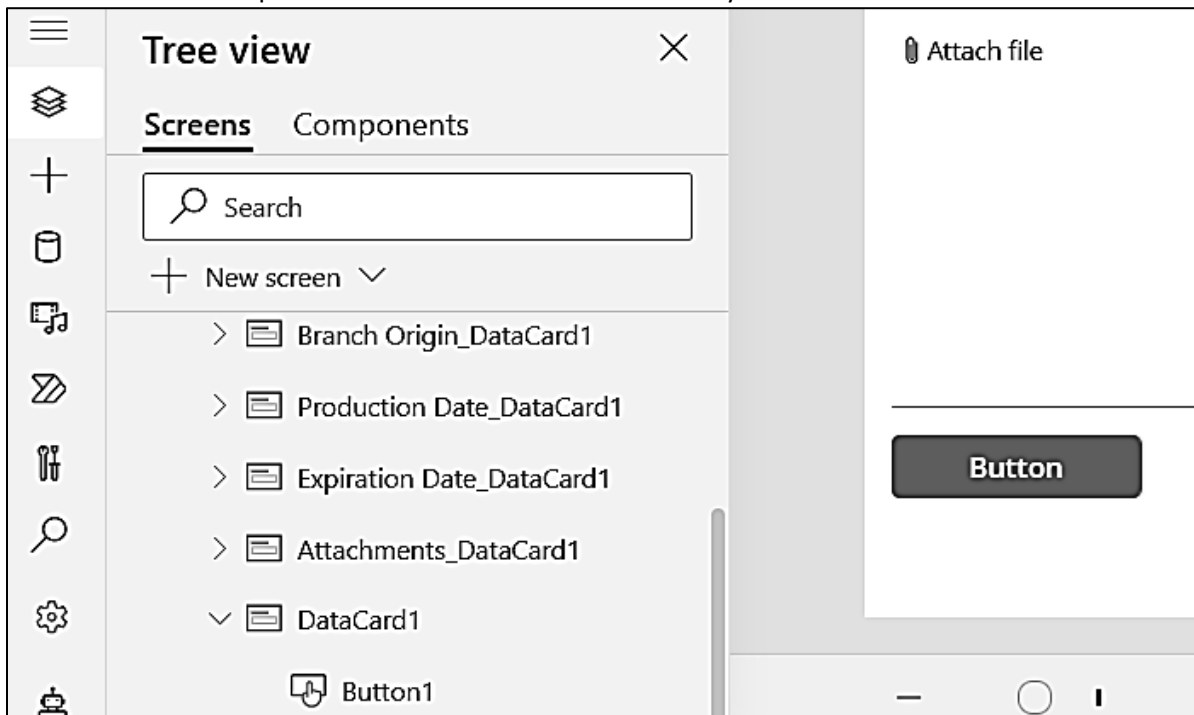
m. Click the + on the left to add an edit form then set its data source



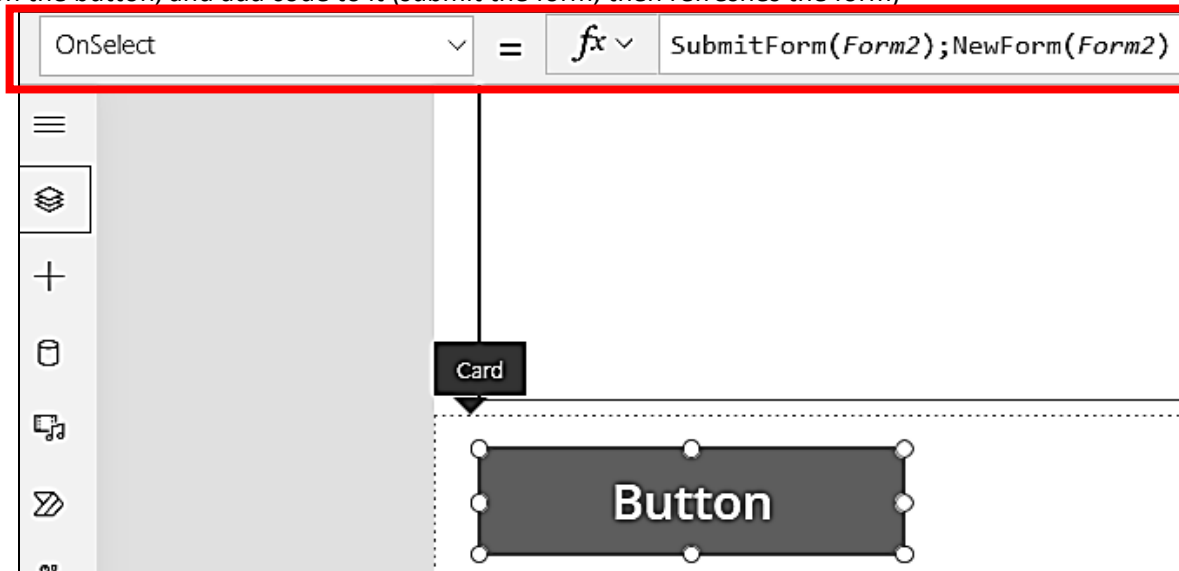
- n. Navigate to the tree view → click on your form from the tree view → then on the right click on edit fields and add a custom card. This is where we will place our submit button.



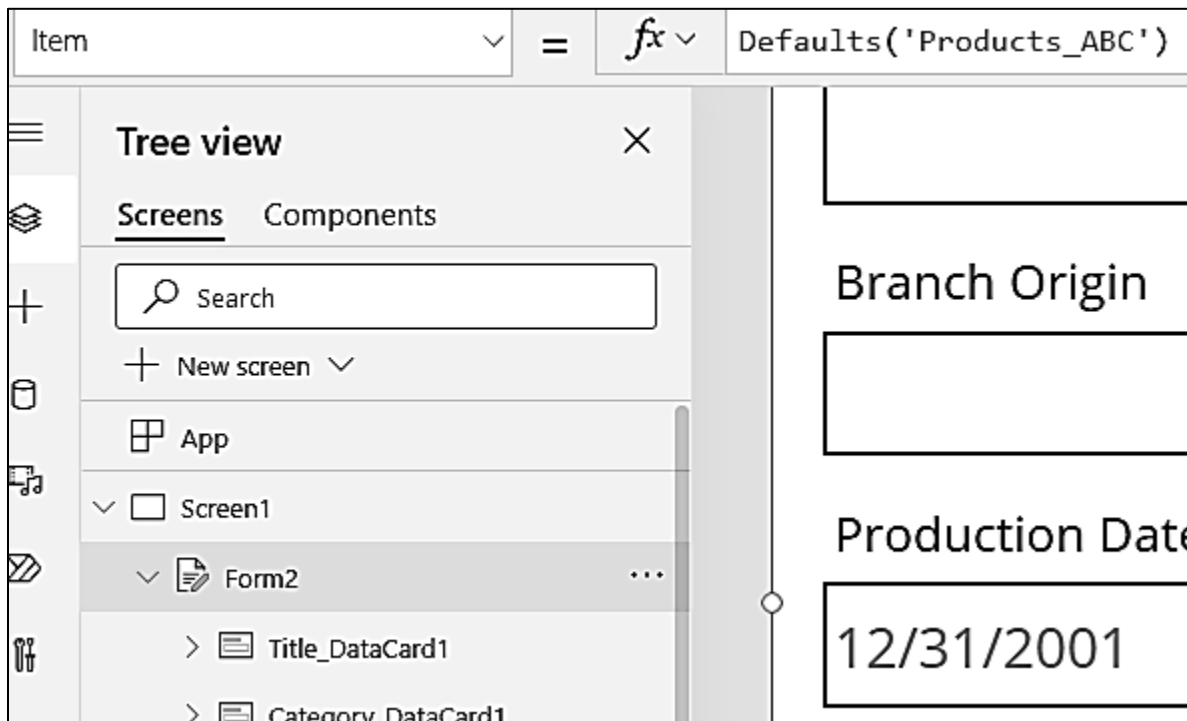
- o. Add a button from our components on the left to the custom card you created.



- p. Click on the button, and add code to it (submit the form, then refreshes the form)



- q. We will add code to set default items into our form. In the tree view → click the form → add the ff. code:



- r. Save and click share for this app to get the web link. Then add it to your sharepoint page
s. You can then create an automation in power automate that will trigger when a new sharepoint list item is added.

14. AI Builder

- Discuss use case for AI Builder
- AI Models Categories (Document | Text | Structured Data | Images | Language?)

Activity 34: Extract information from invoice

Activity 35: Extract information from handwritten invoice?

Activity 36: Read Information from invoice using AI Builder

Activity 37: Process receipts from Teams with AI Builder and add results to excel

Activity 38: Track Expenses by scanning receipts added to onedrive

Activity 39: Click button to read and save information from documents

Activity 40: Demo sample AI Builder Document Model Training