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.

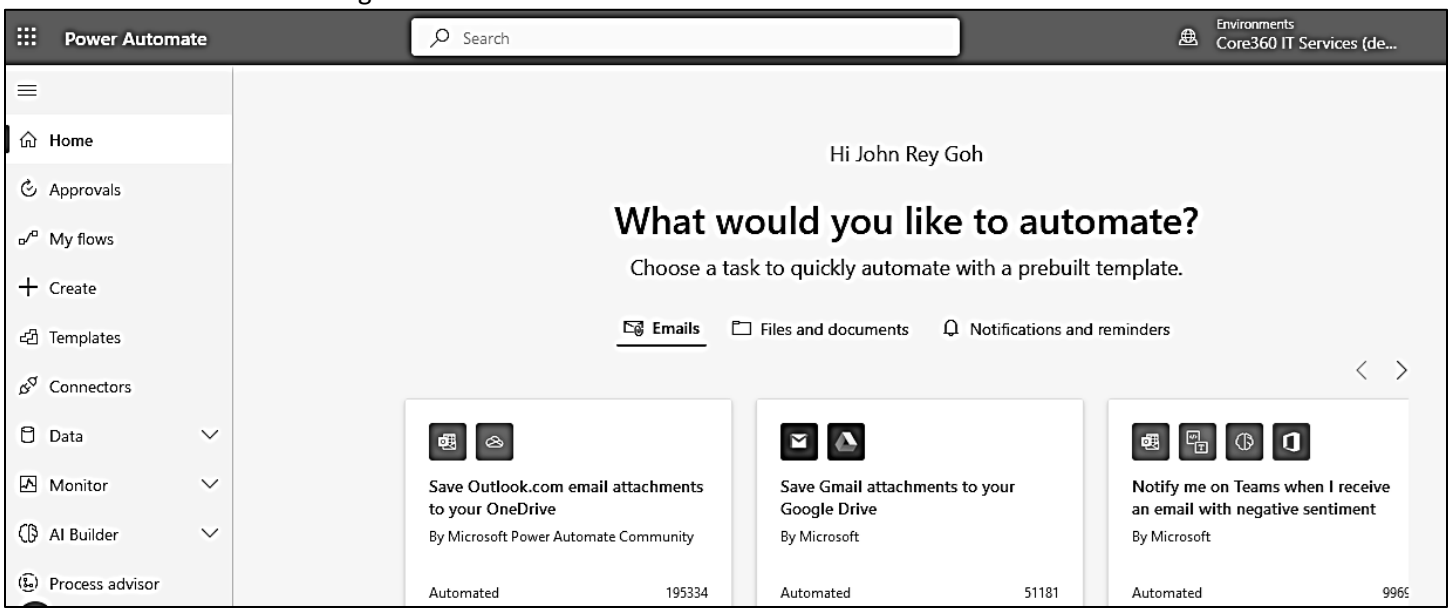
Overall, Power Automate is a powerful tool for automating business processes and increasing productivity by reducing manual work and improving collaboration between different teams and systems.

2. Setting up Lab Environment

Creating an account:
https://flow.microsoft.com/

or
https://powerautomate.microsoft.com/en-us/

3. Basic Interface Walkthrough

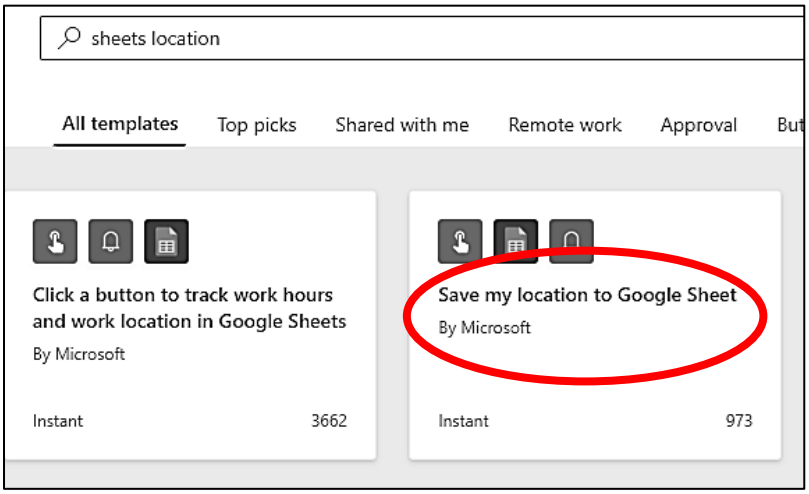


Note: Install Power Automate Desktop. You can get it from the My Flows menu item.

4. Creating a flow from a template

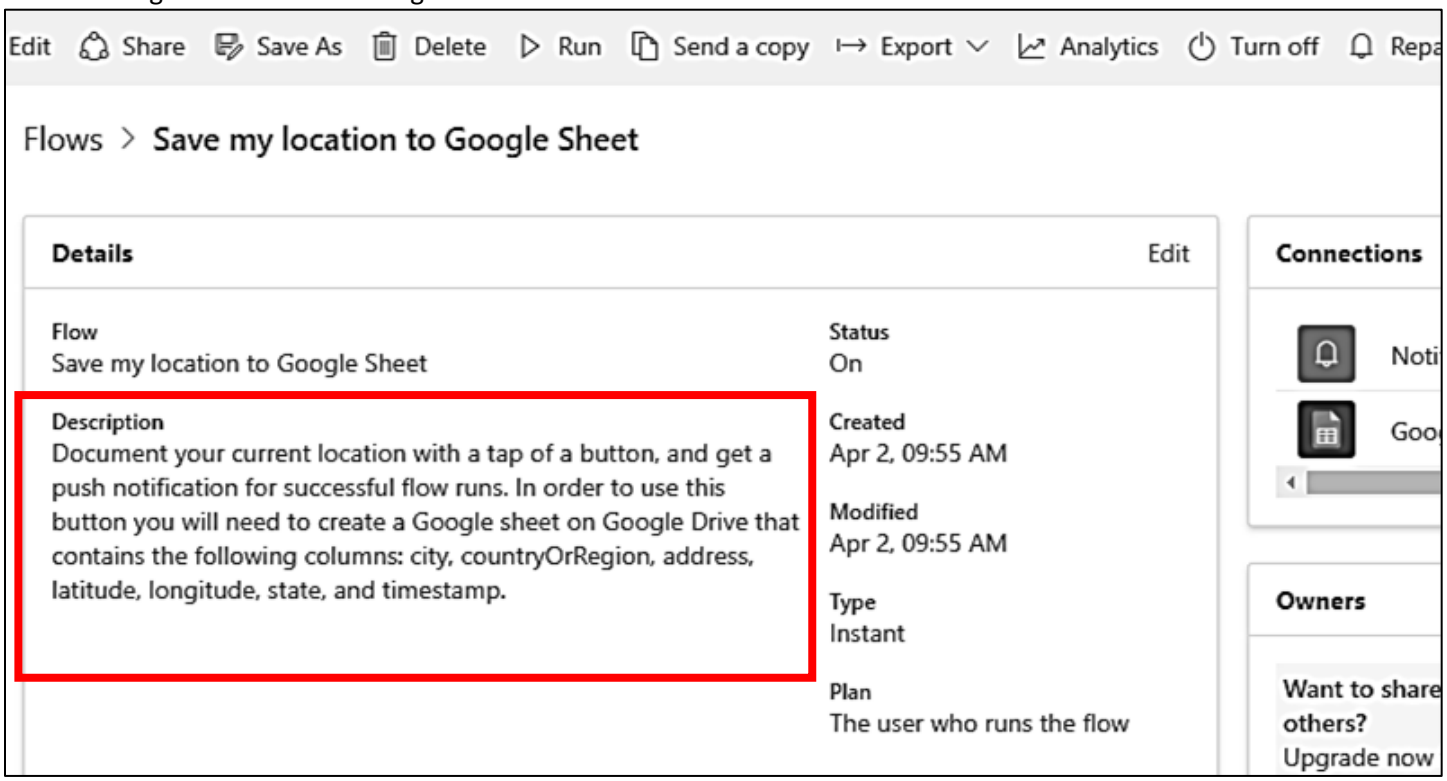
Activity 1: Send note through email with button click

a. Install power automate desktop first
b. Power automate→templates→search:



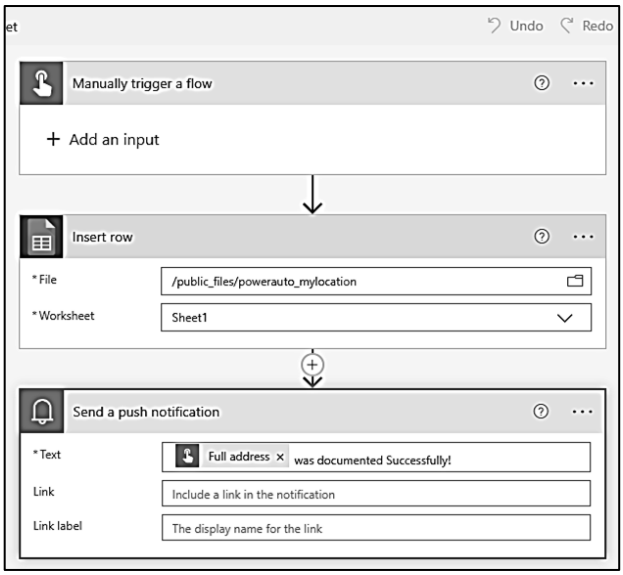
c. Configure your flow

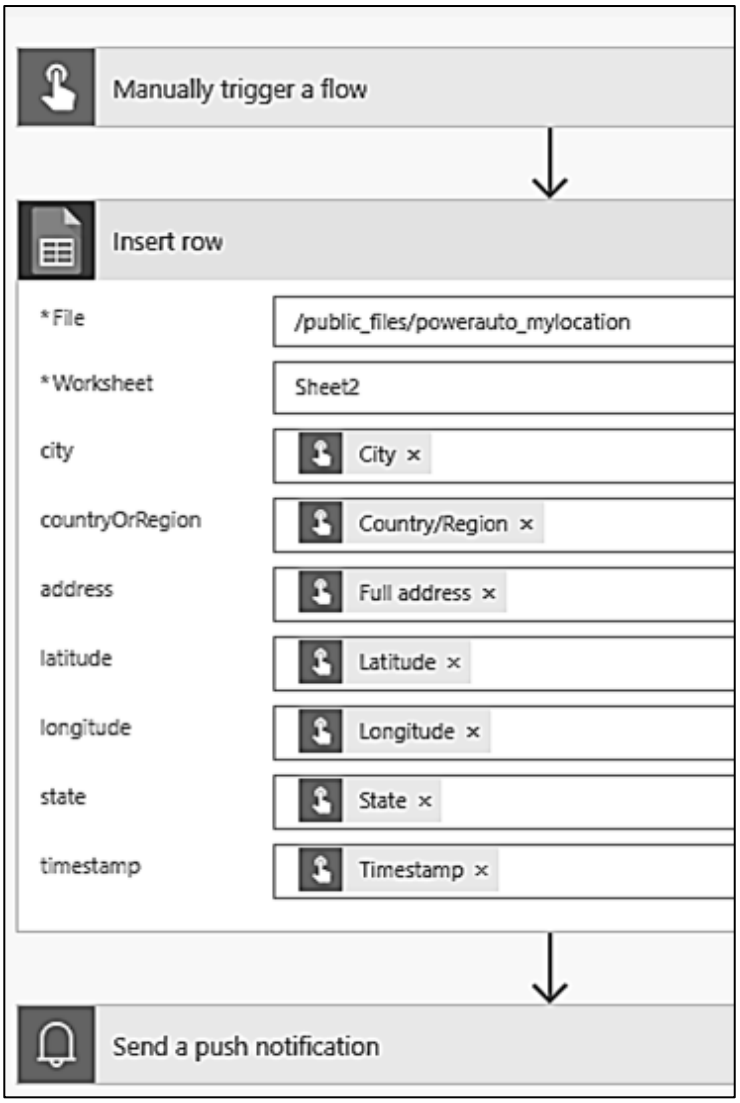
The following is the Flow Detail Page

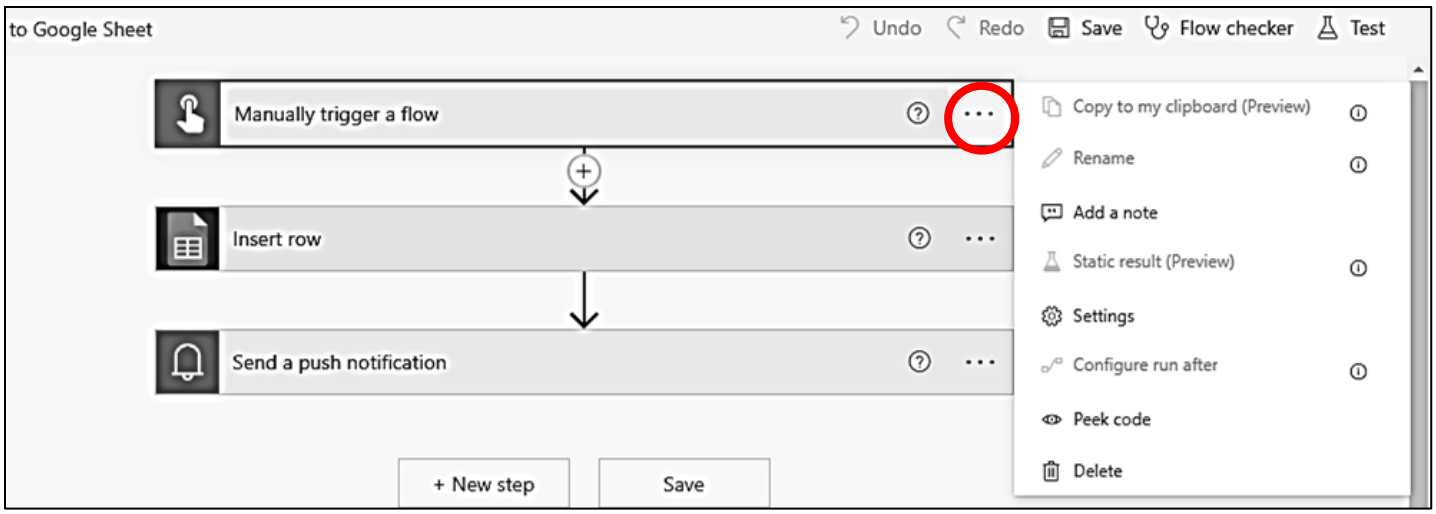


d. Understanding Flow Template Structure

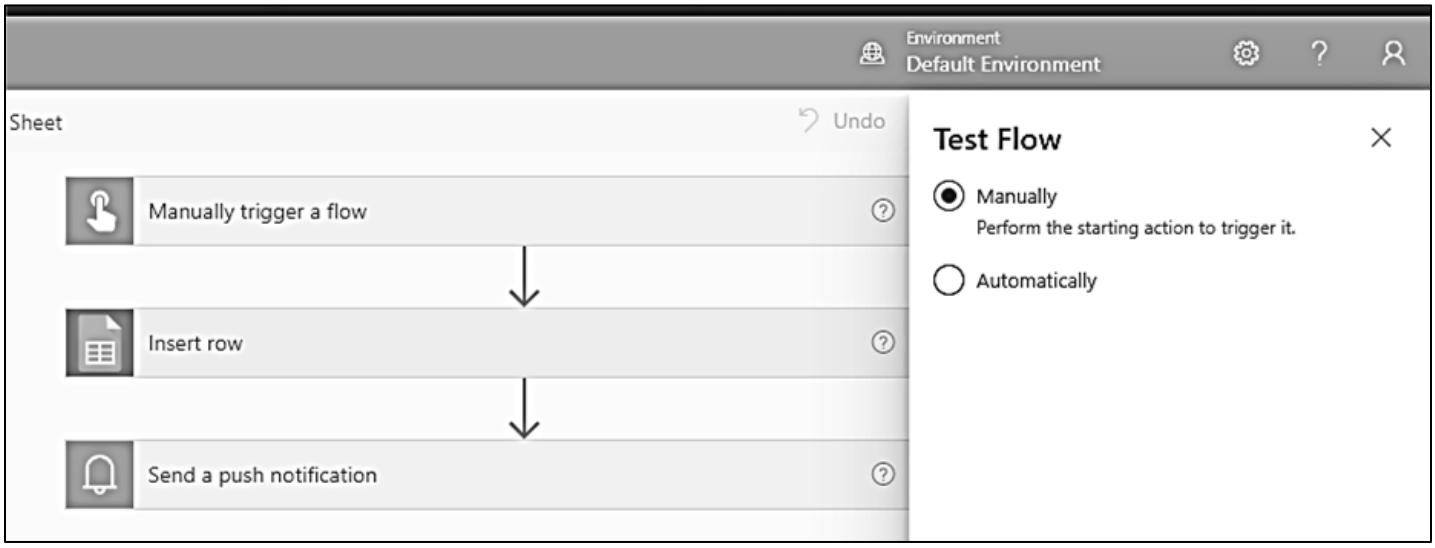
click edit to see flow template structure

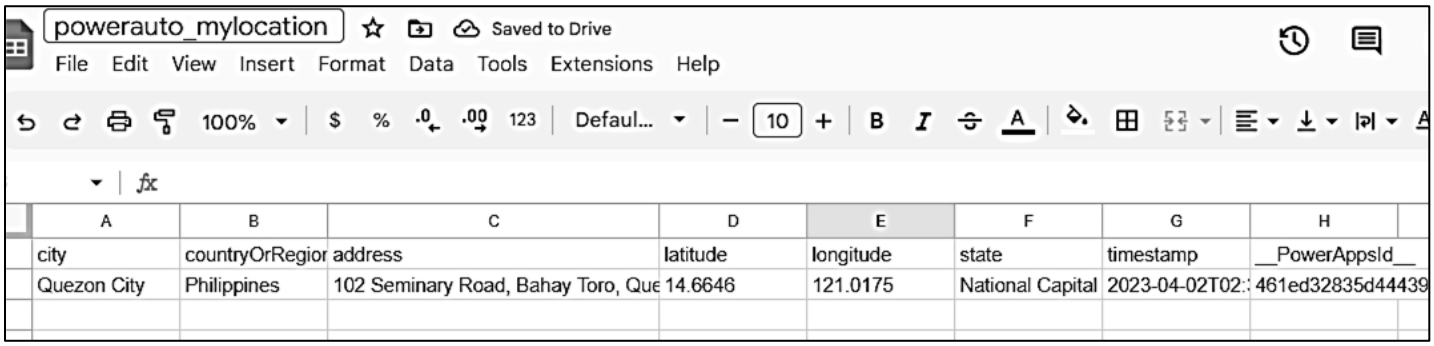






e. Running & Testing Our First Flow





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

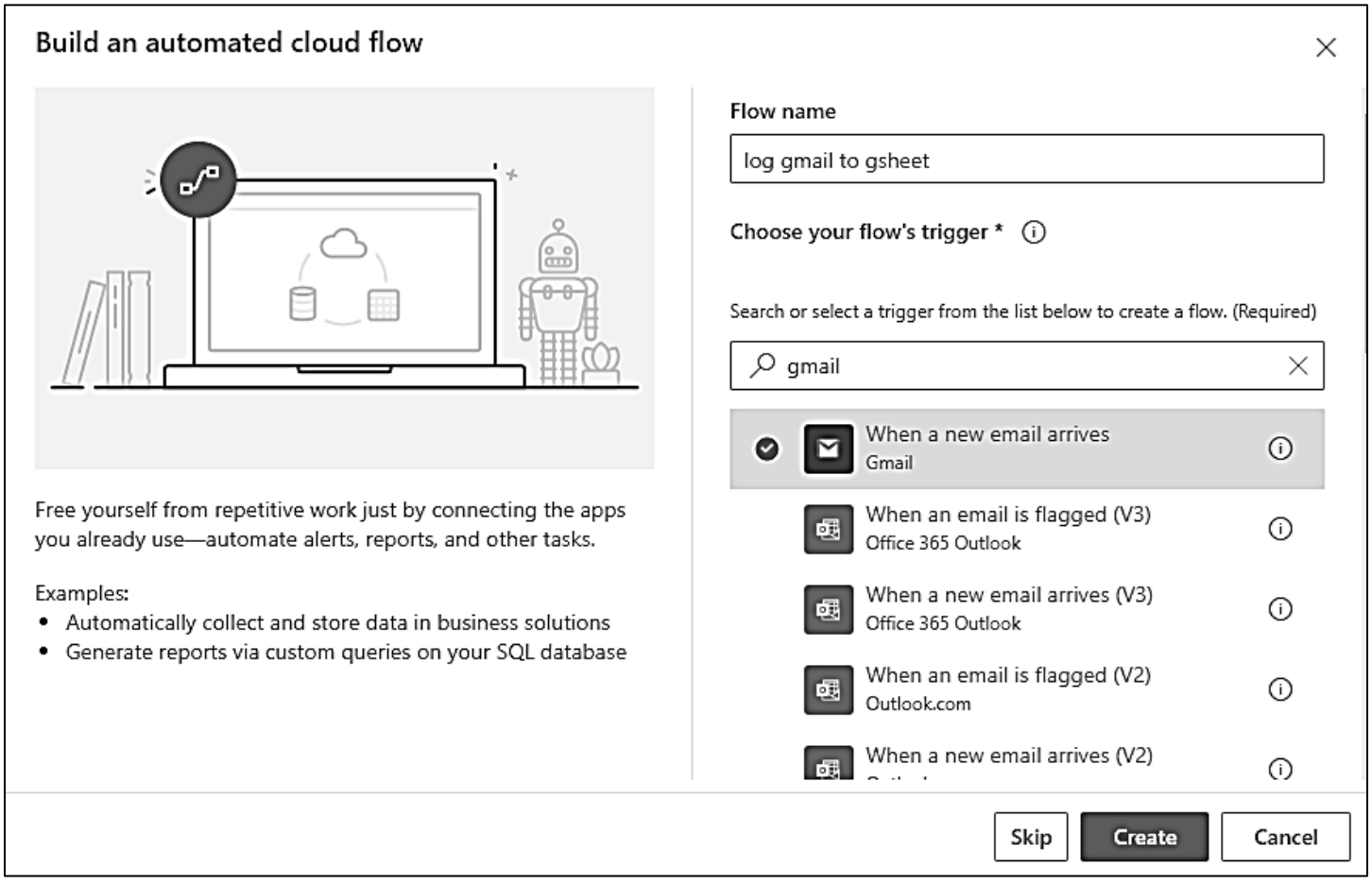
Note:

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

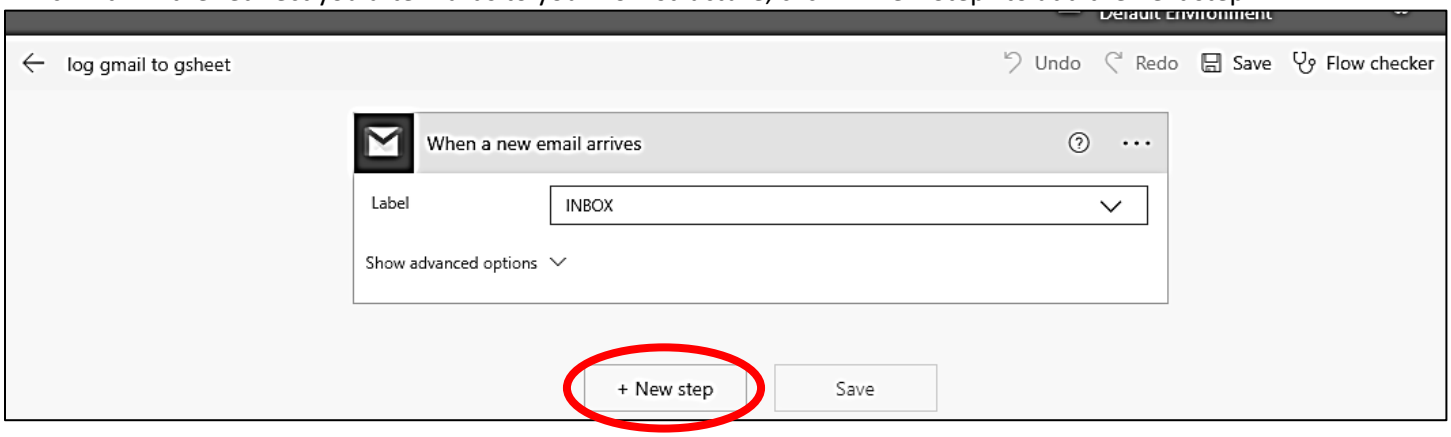
6. Creating a flow from scratch

Activity 5: Recreate Activity 3 manually from scratch.

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

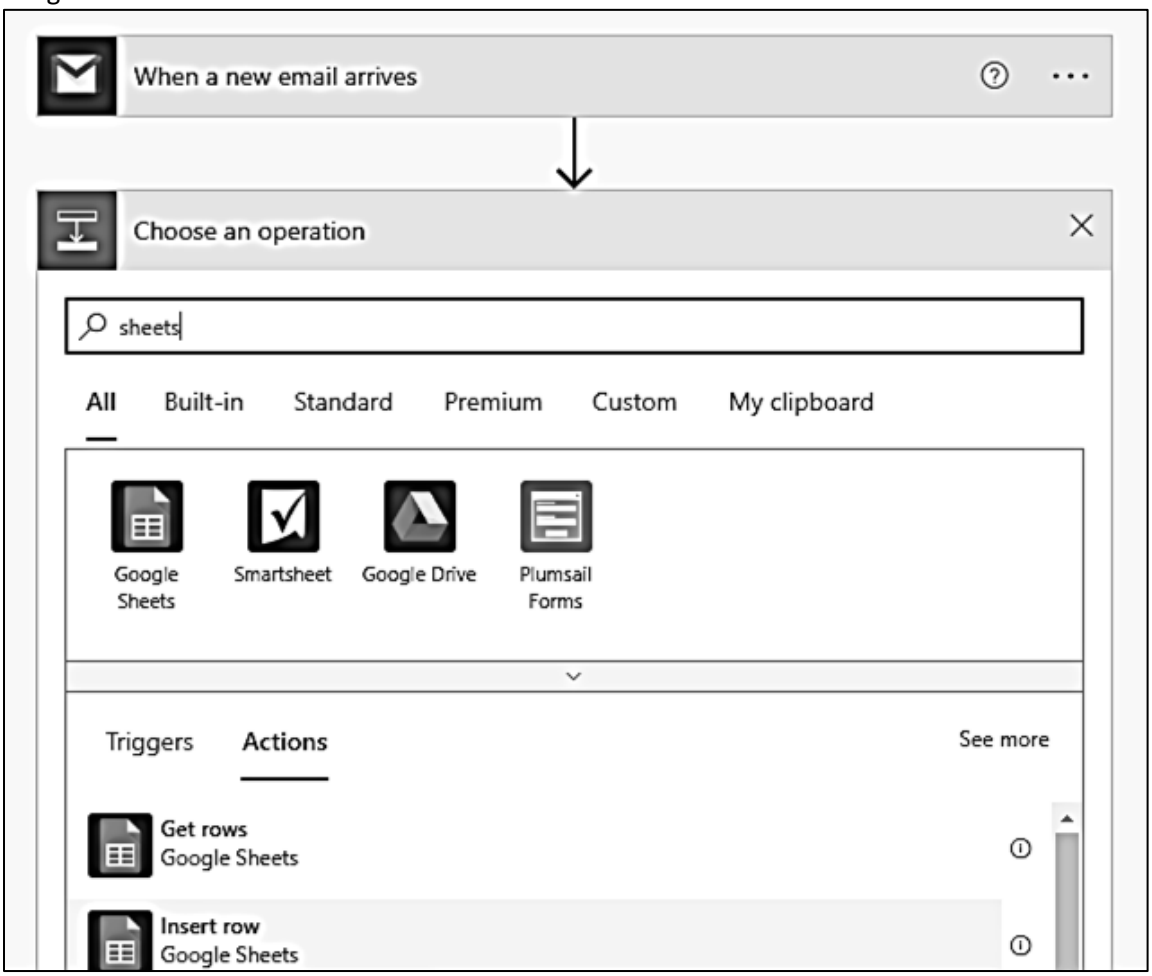


c. It will the redirect you afterwards to your flow structure, click "+ New Step" to add the next step

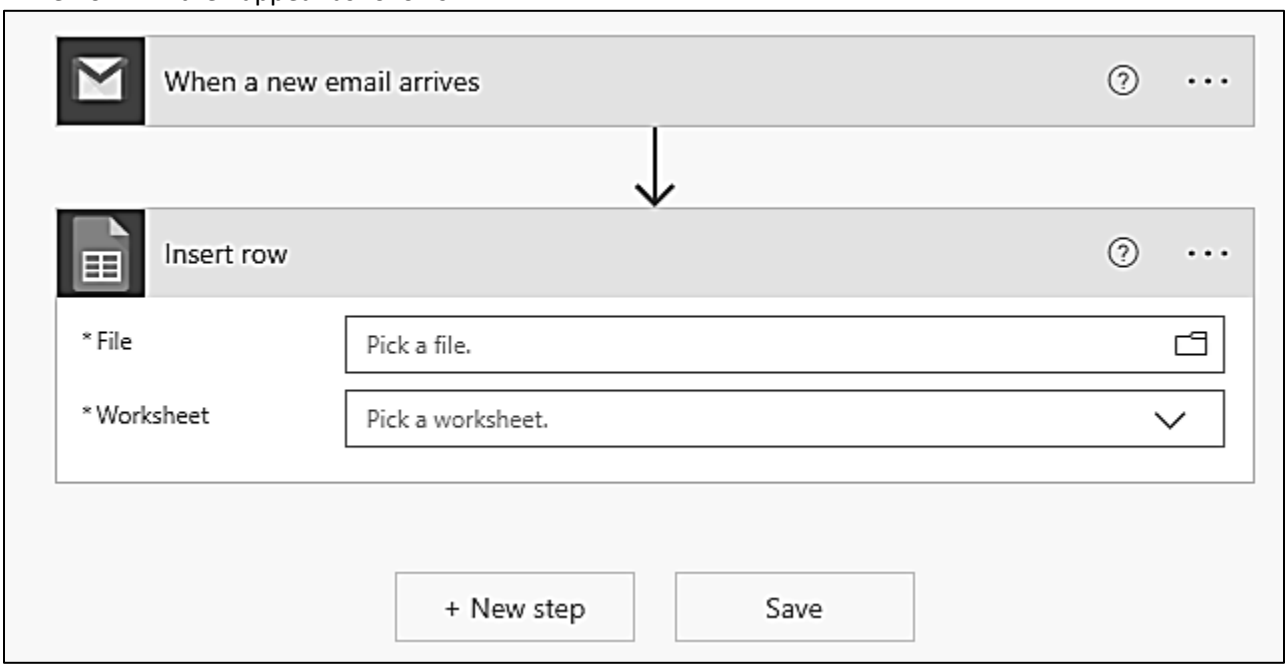


d. Select an operation the choose an action

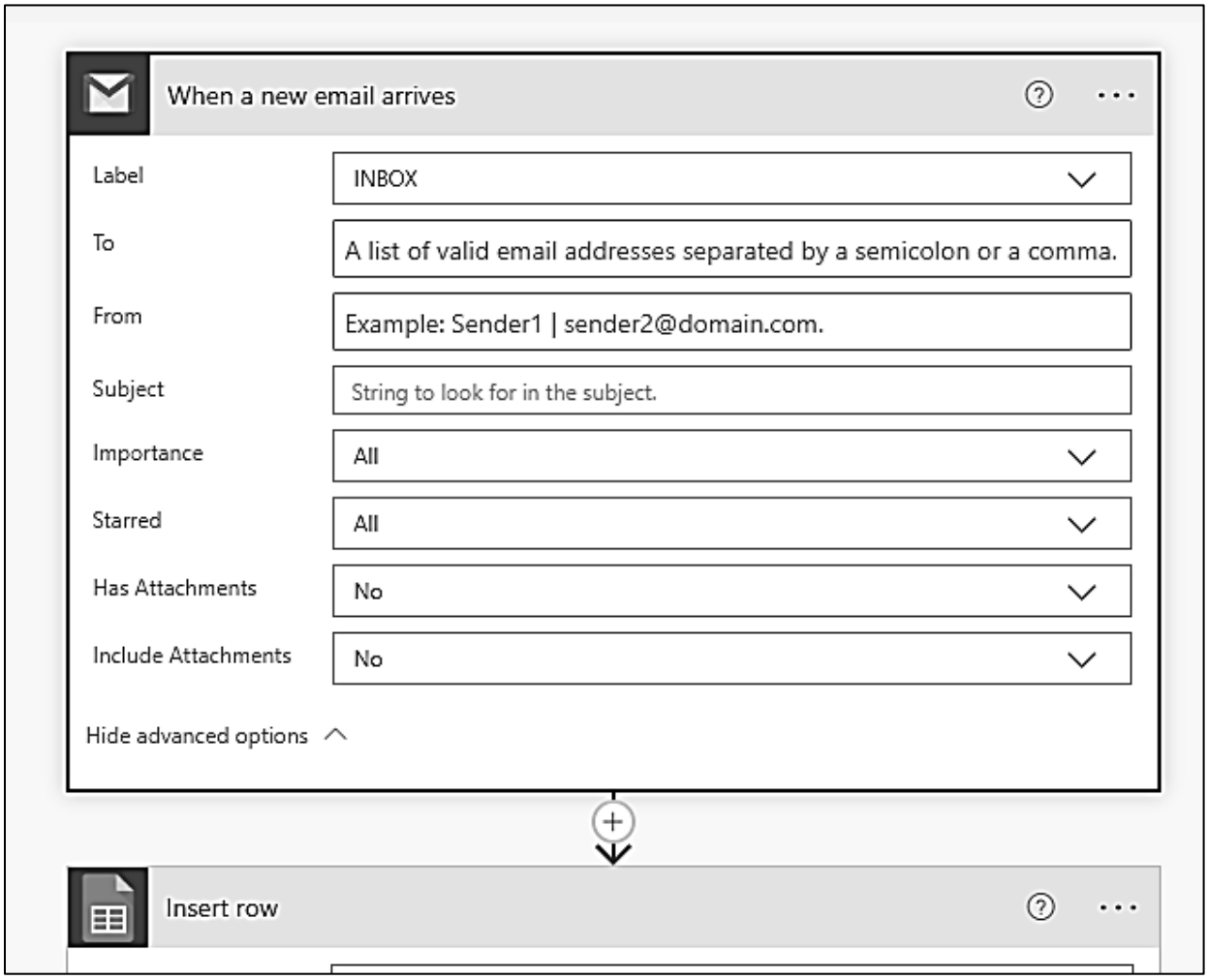
Operation: Google Sheets→ action: Insert row



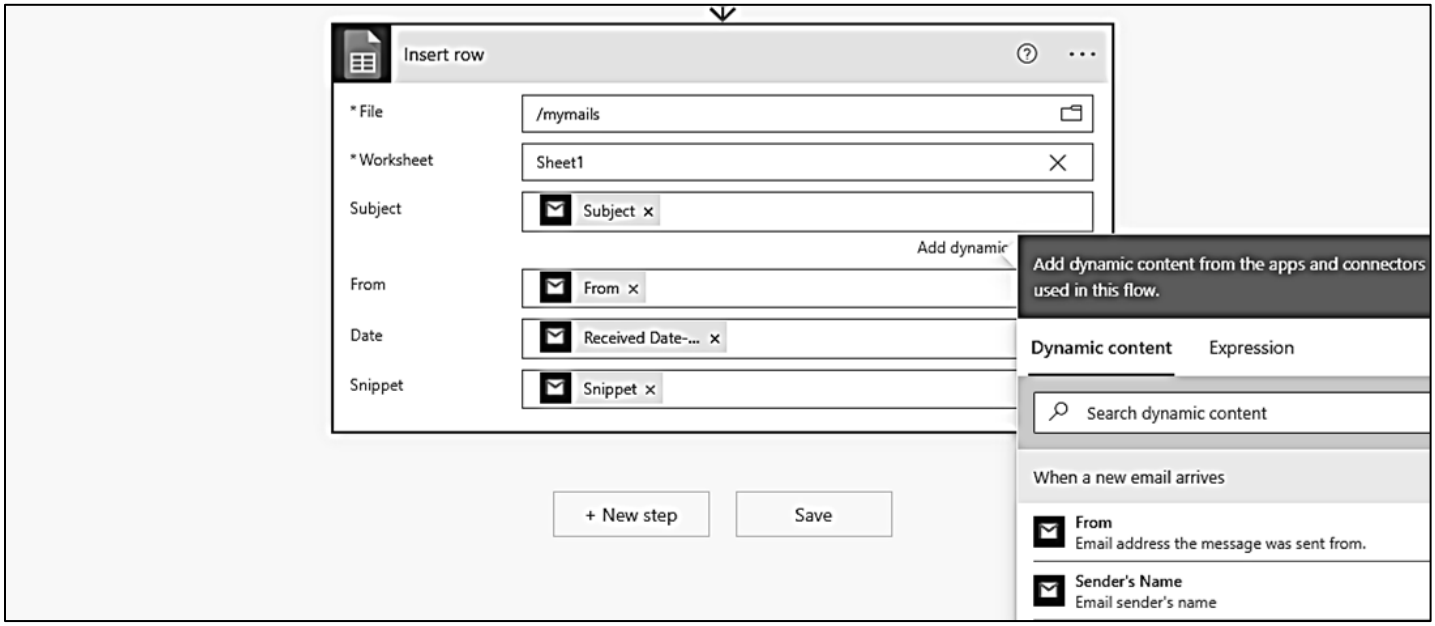
e. The flow will then appear as follows:



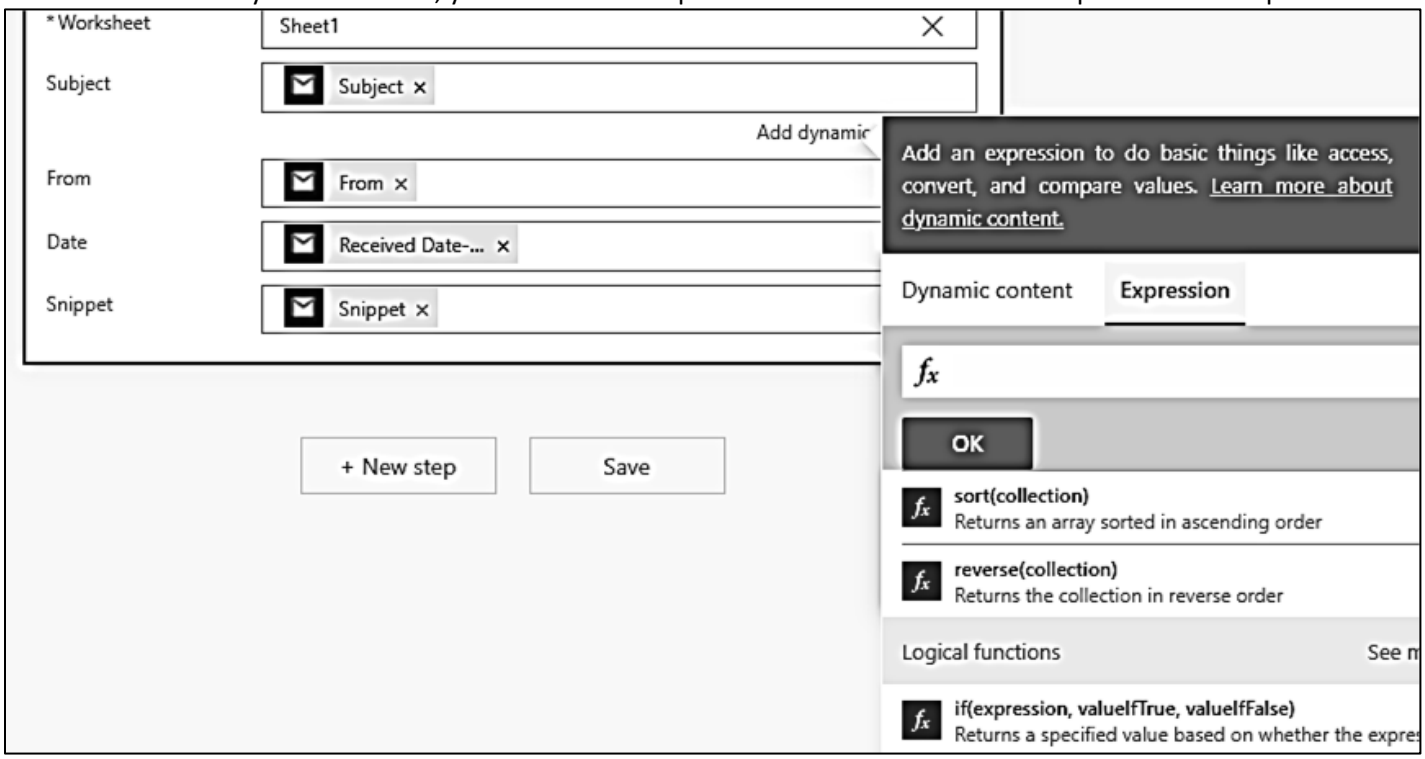
f. When you open you flow structure, you can see and set what it will collect



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

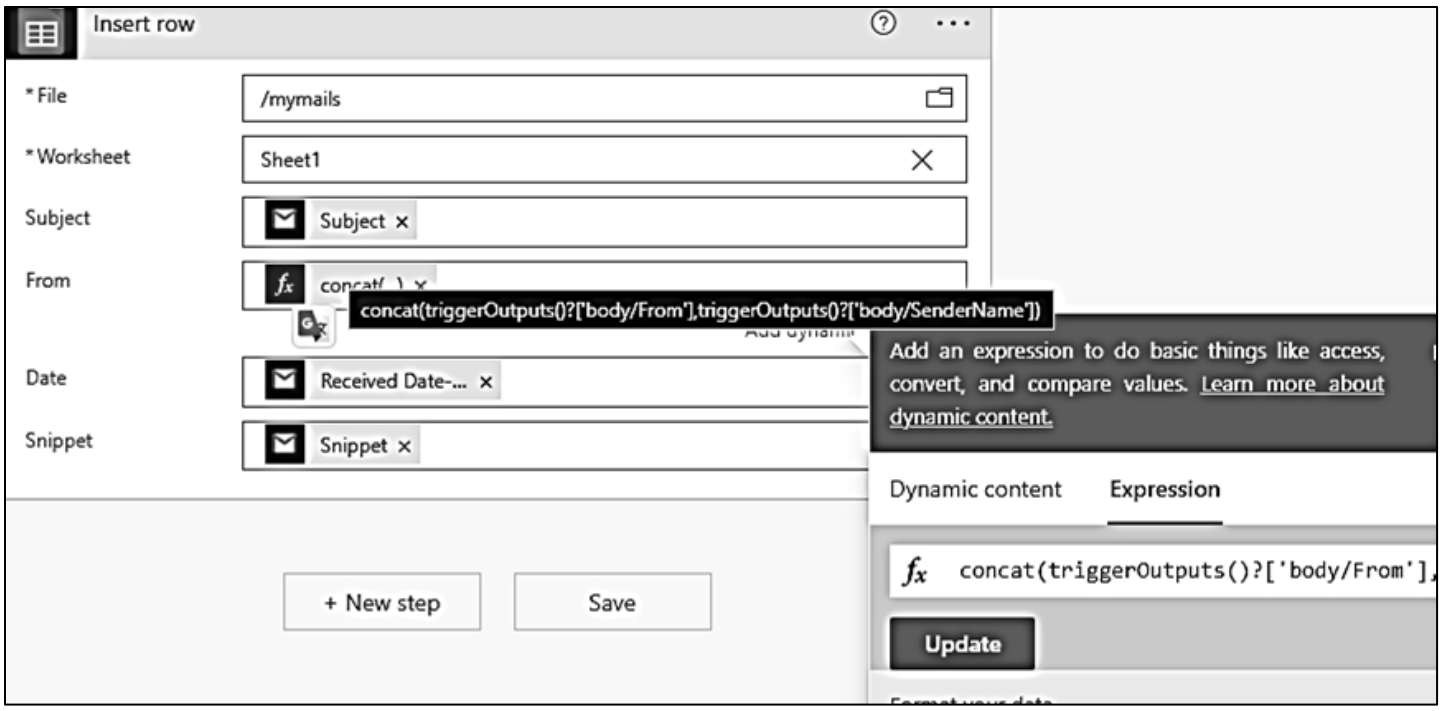


h. Aside from dynamic content, you can also use expressions to add basic value manipulation techniques

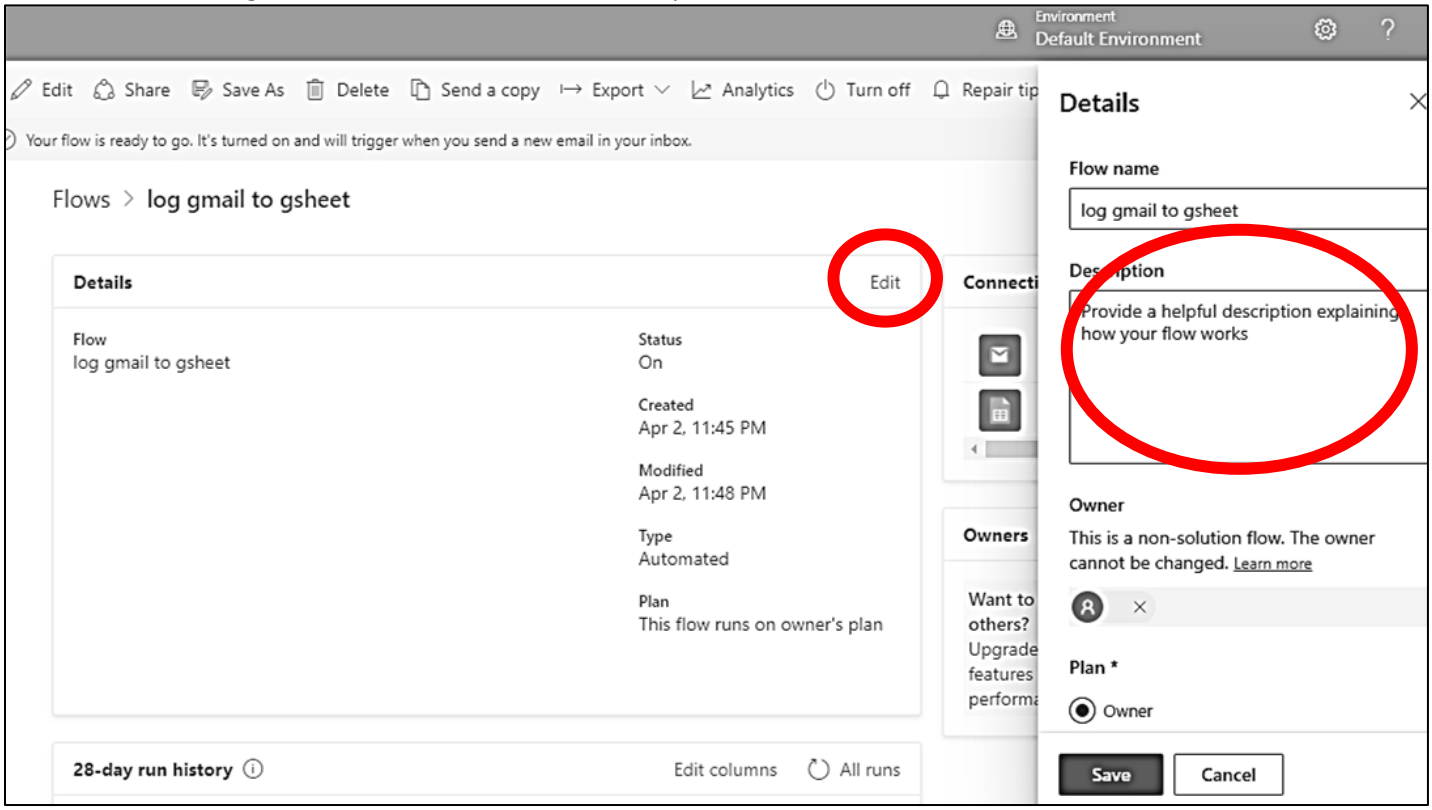


i. Let us try using a concat expression

- 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.

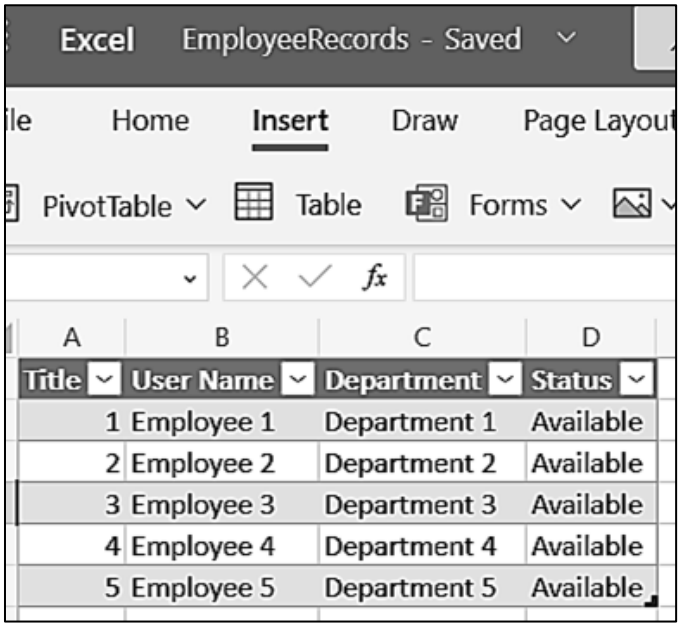
8. Setting Up Due Date Dynamically Using Expressions & Date Functions

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)

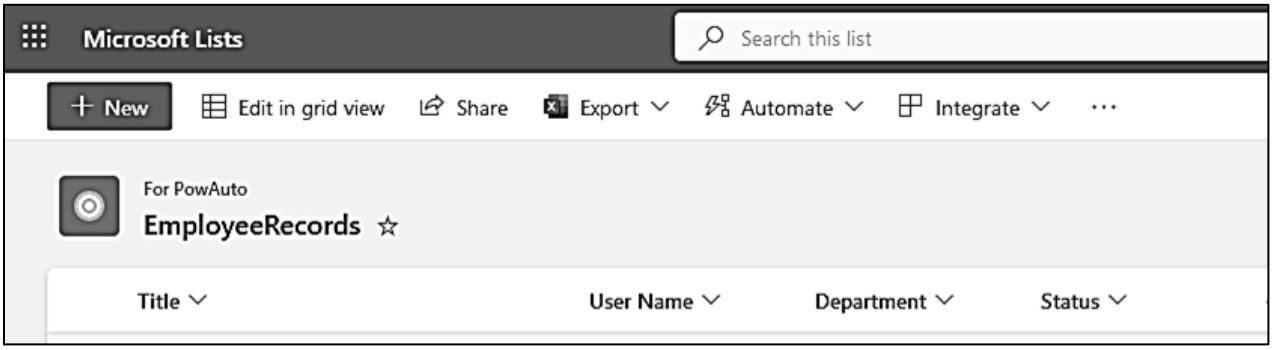
9. Getting Started with Built-In Control Functions in Power Automate

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

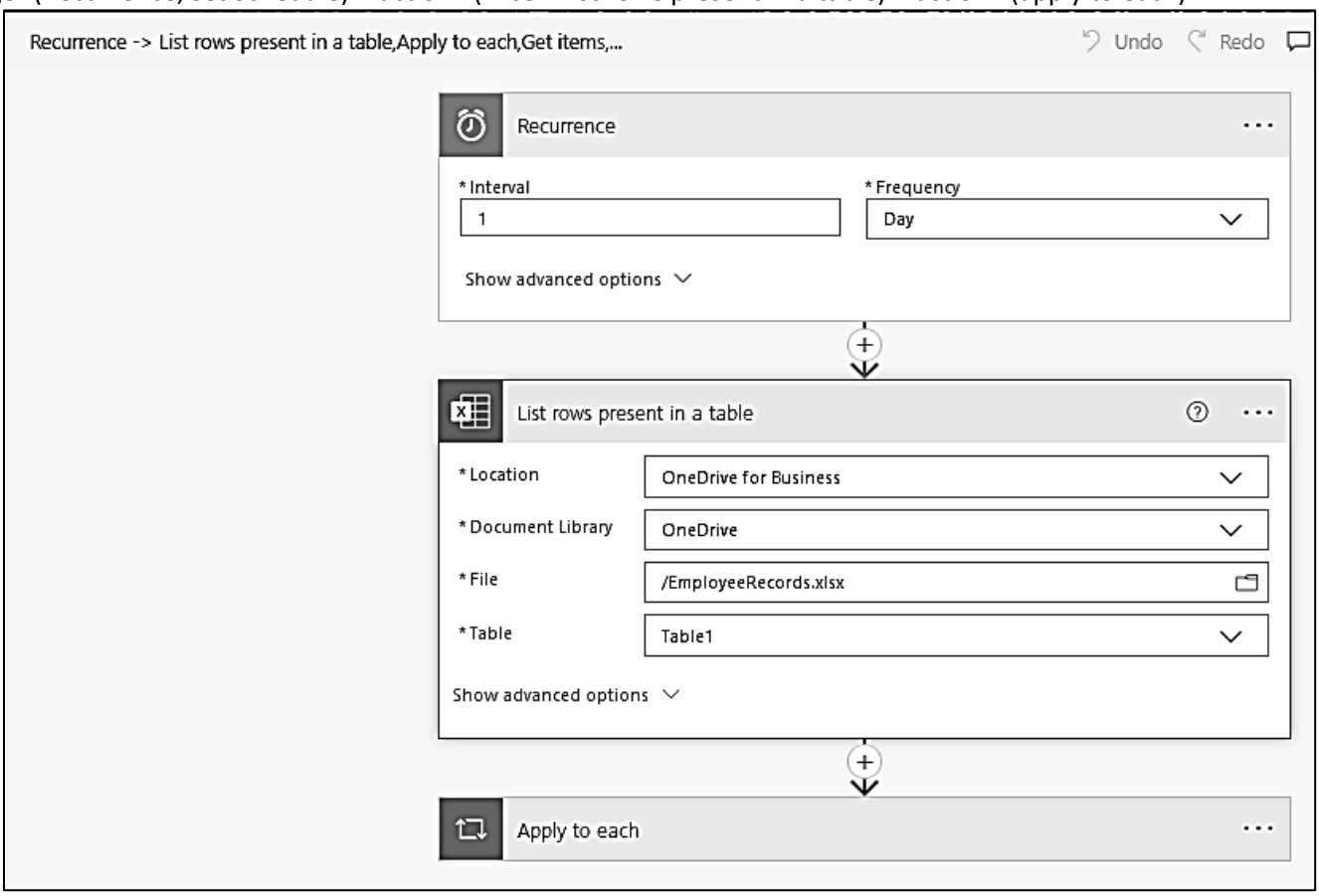


b. Create a sharepoint site, then create a blank list inside with the same columns as the one in your excel table

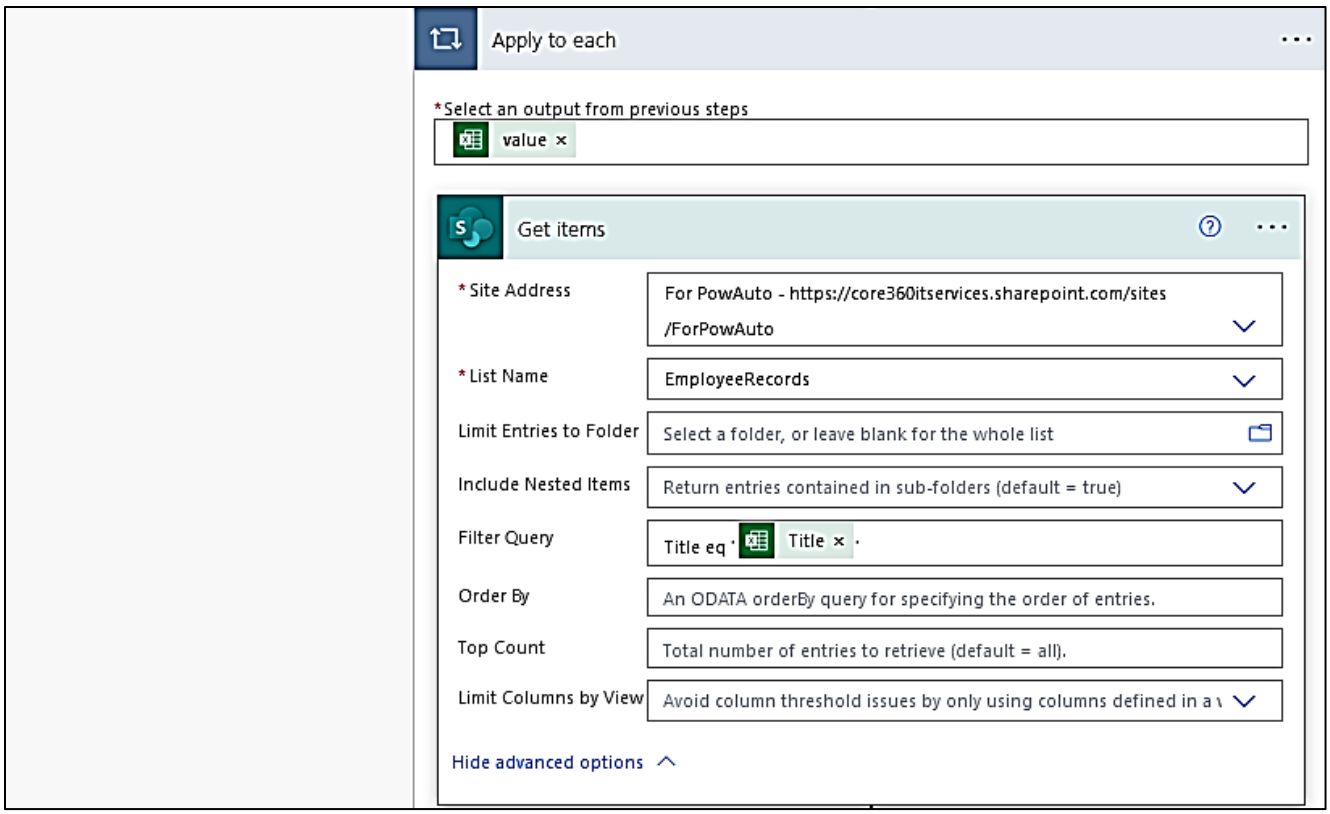


c. Create a Scheduled flow:

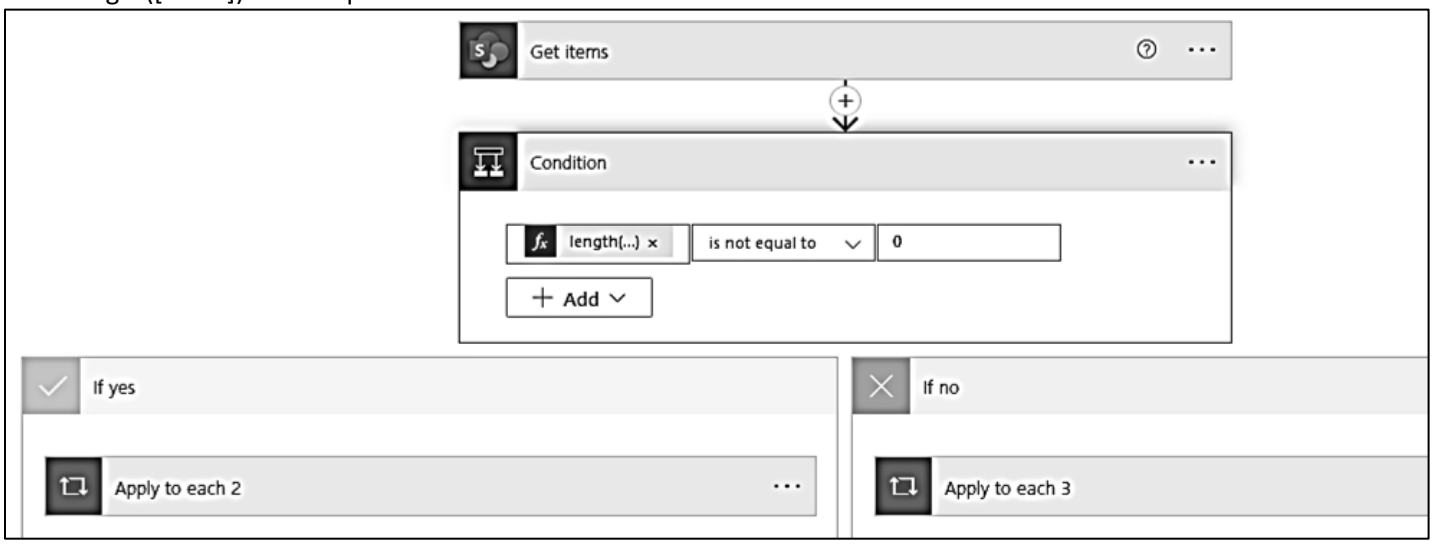
Trigger (Recurrence, set Schedule)→action1 (Excel - list rows present in a table)→action2 (apply to each)

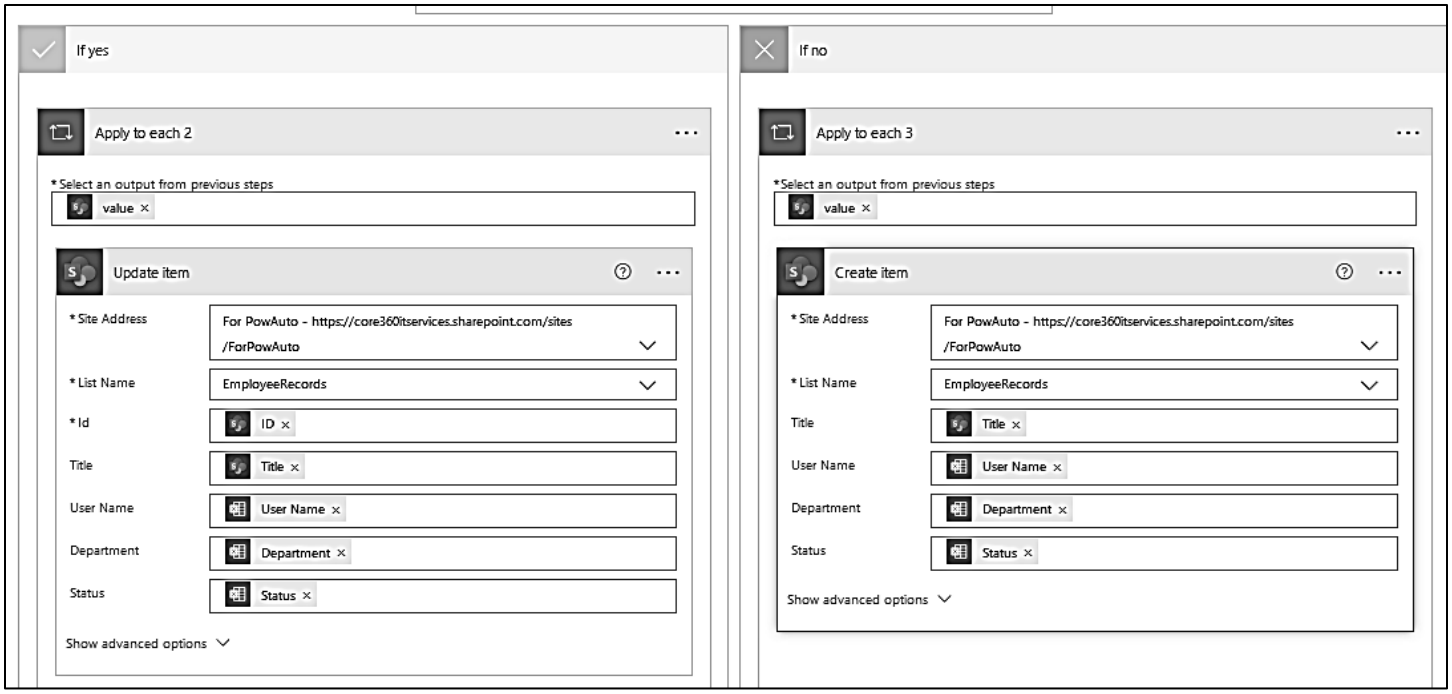


→action2(apply to each (value) →sub-action1 (sharepoint-get items), note of the Filter Query ***Title eq '[Title]'***



→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





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

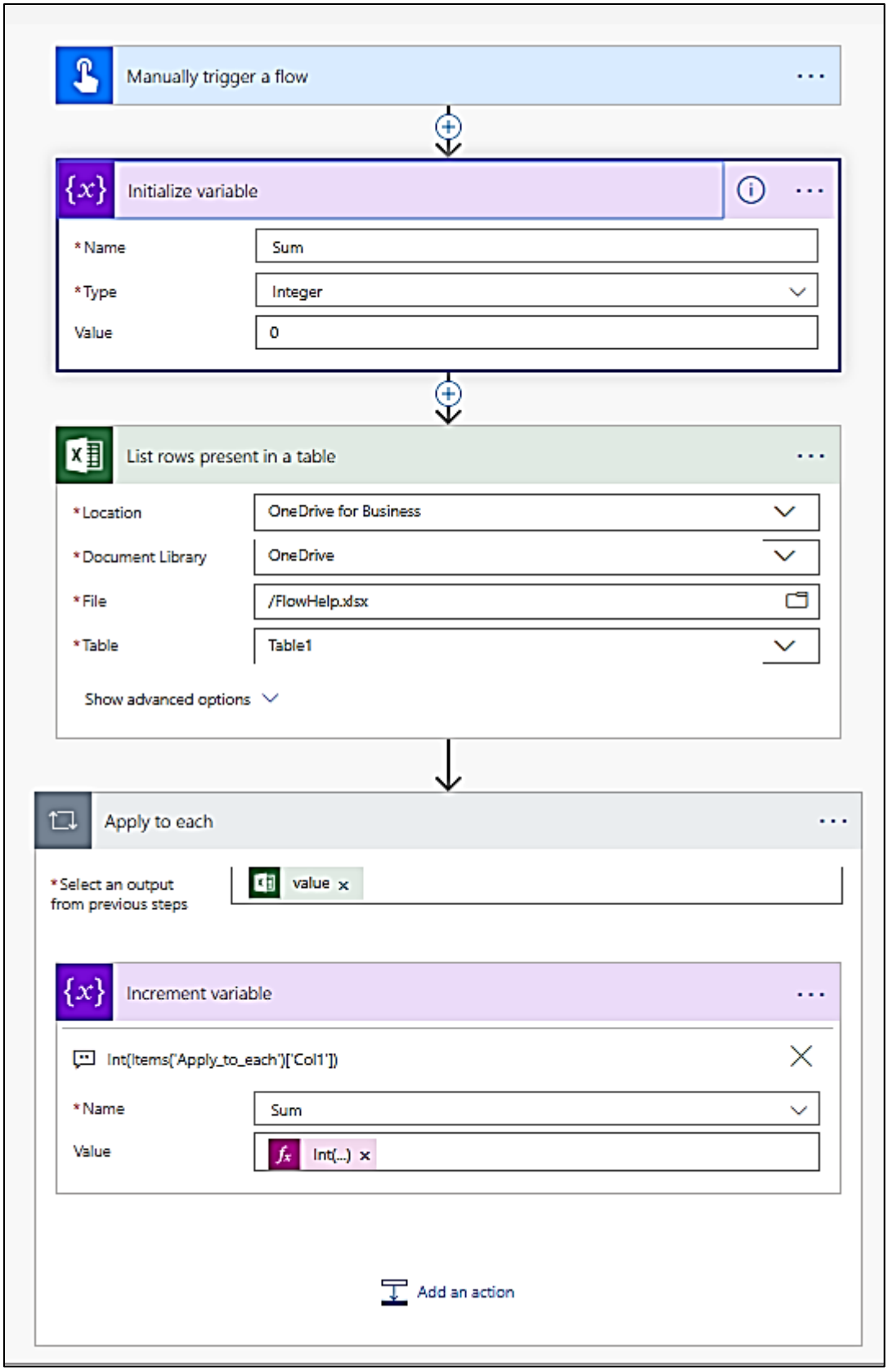
11. Requirements to Get Started with Desktop Flows
    a. Installing Required Browser Extensions for Desktop Flows
    b. Installing & Setting Up Power Automate Desktop
    c. Desktop Flow Environment Walkthrough
    d. Creating Our First Desktop Flow Using Desktop Recorder
    e. Error Handling While Running Desktop Flows
    f. Editing or Modifying Parameters of Desktop Flows
    g. Testing Modified Parameters in Desktop Flows
    h. Creating Dialog Box for Getting User Input in Desktop Flows
    i. Integrating User Inputs in Desktop Flows
    j. 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

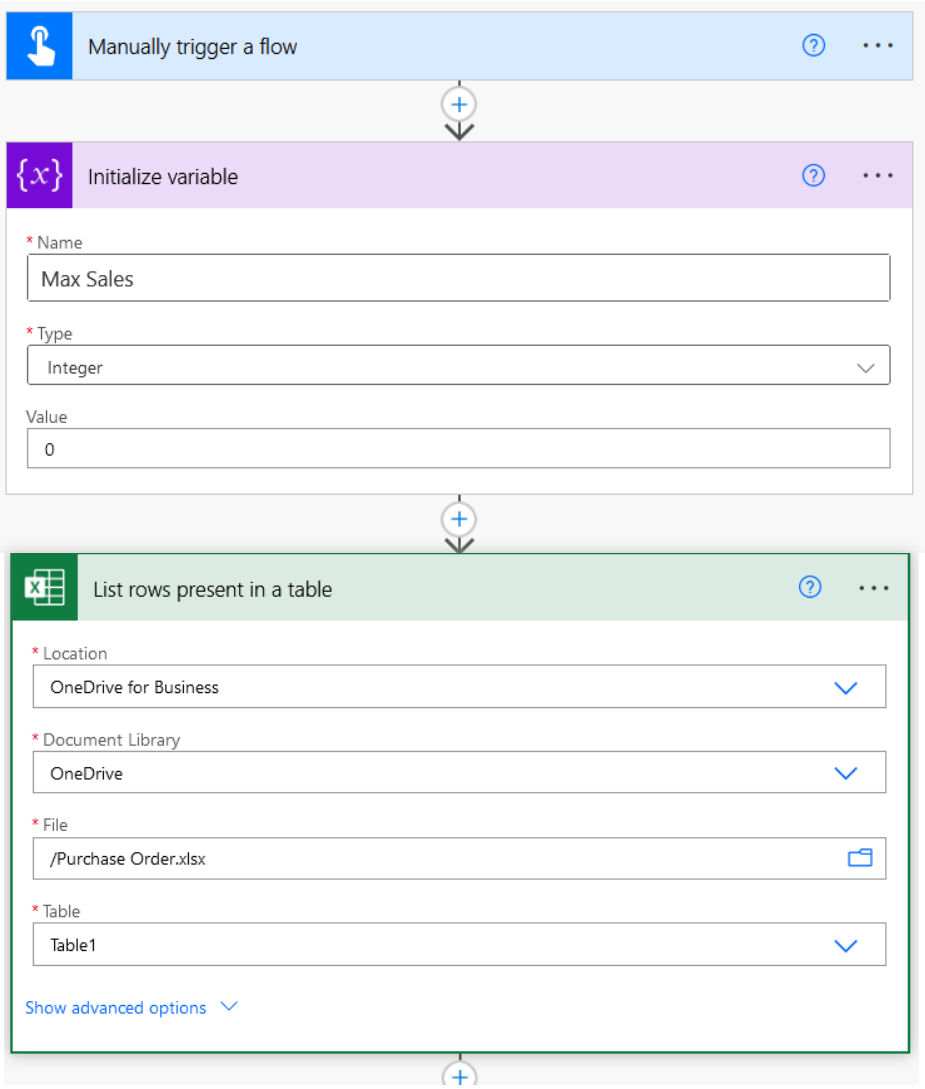
12. More Activities

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

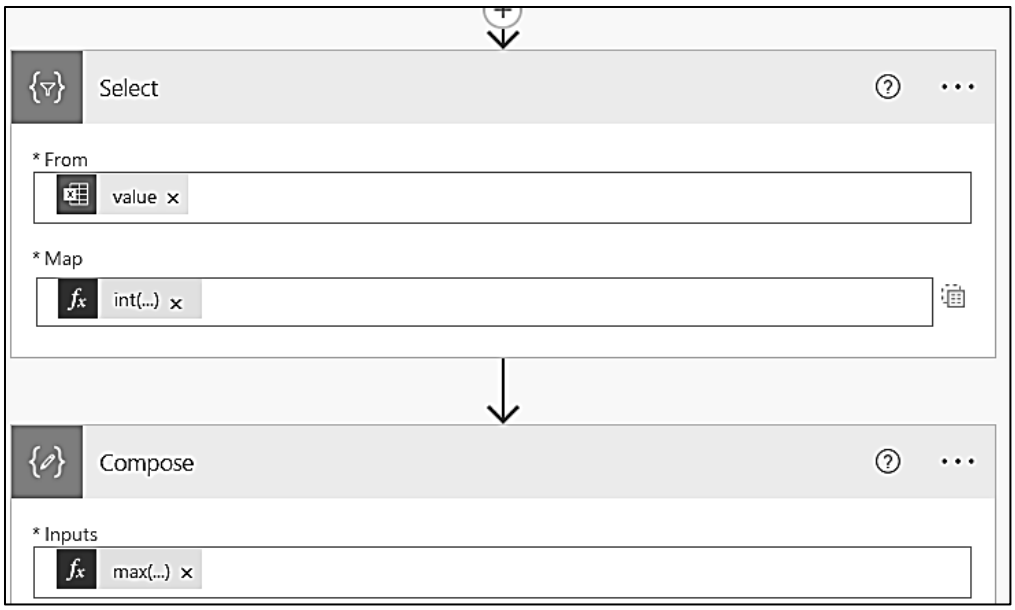


Note(s):
[select step]

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

[compose step]

- max(body('Select'))

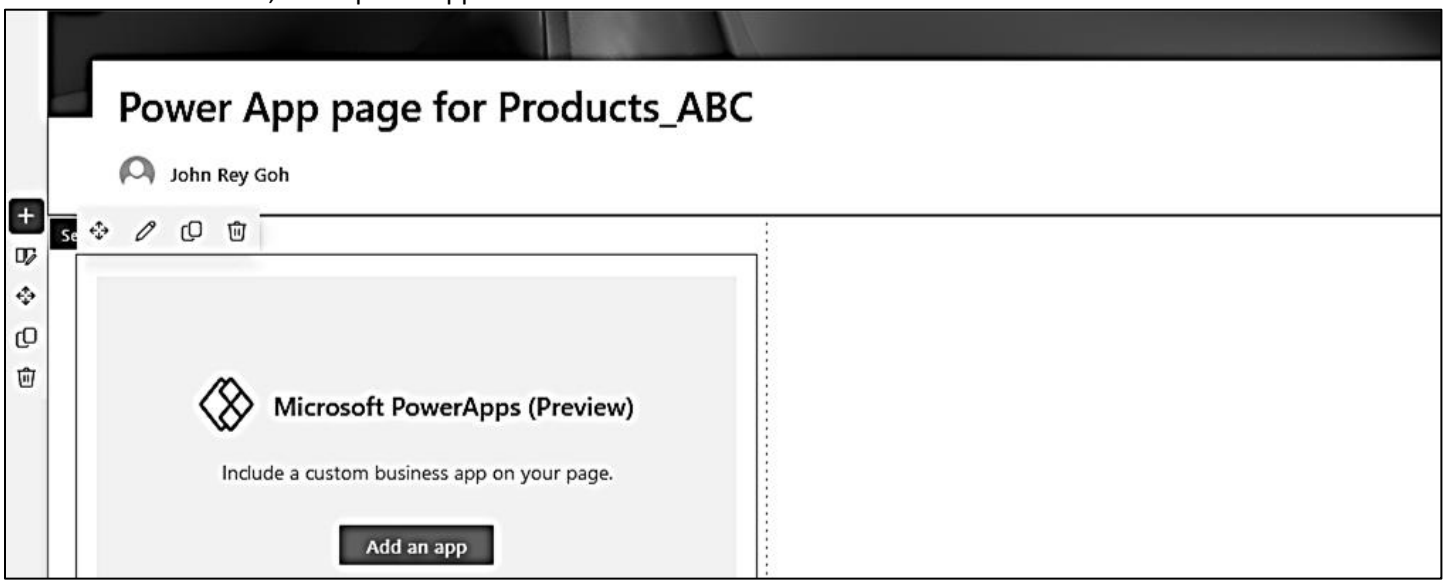


Activity 31: Create a Trello card when a channel post starts with 'TODO'
Activity 32: Create a Trello card for the selected item in SharePoint

13. Power Apps

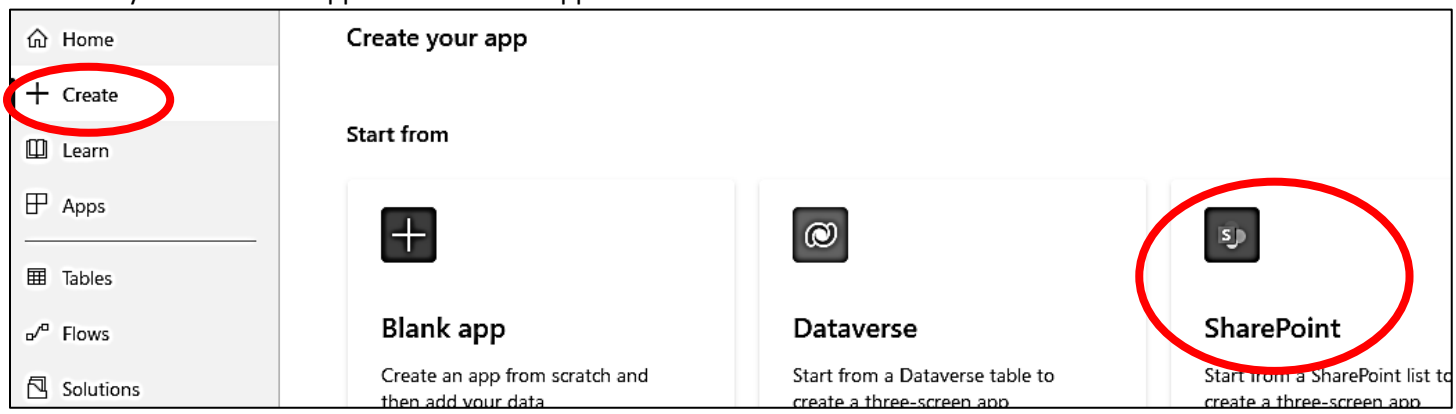
Activity 33: Power Automate + Power Apps with SharePoint List

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

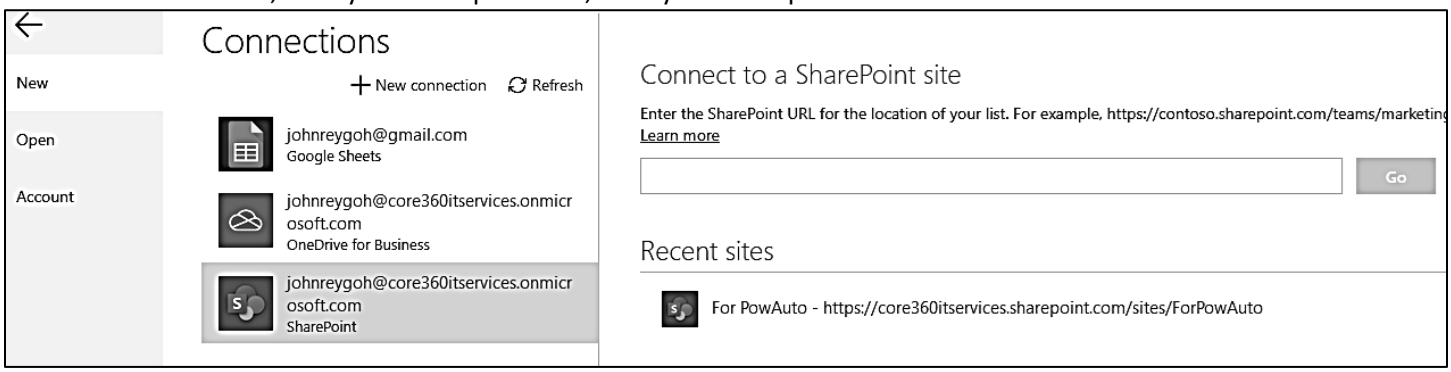


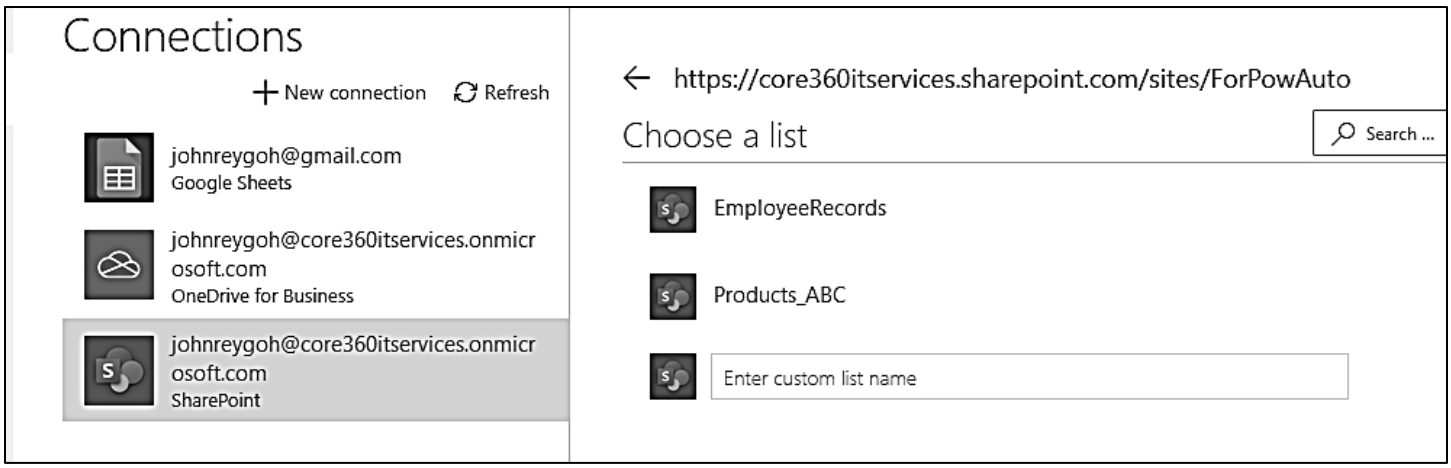
d. click the “add an app button” and it will ask for a link of our app so we will create our app in MS PowerApps

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

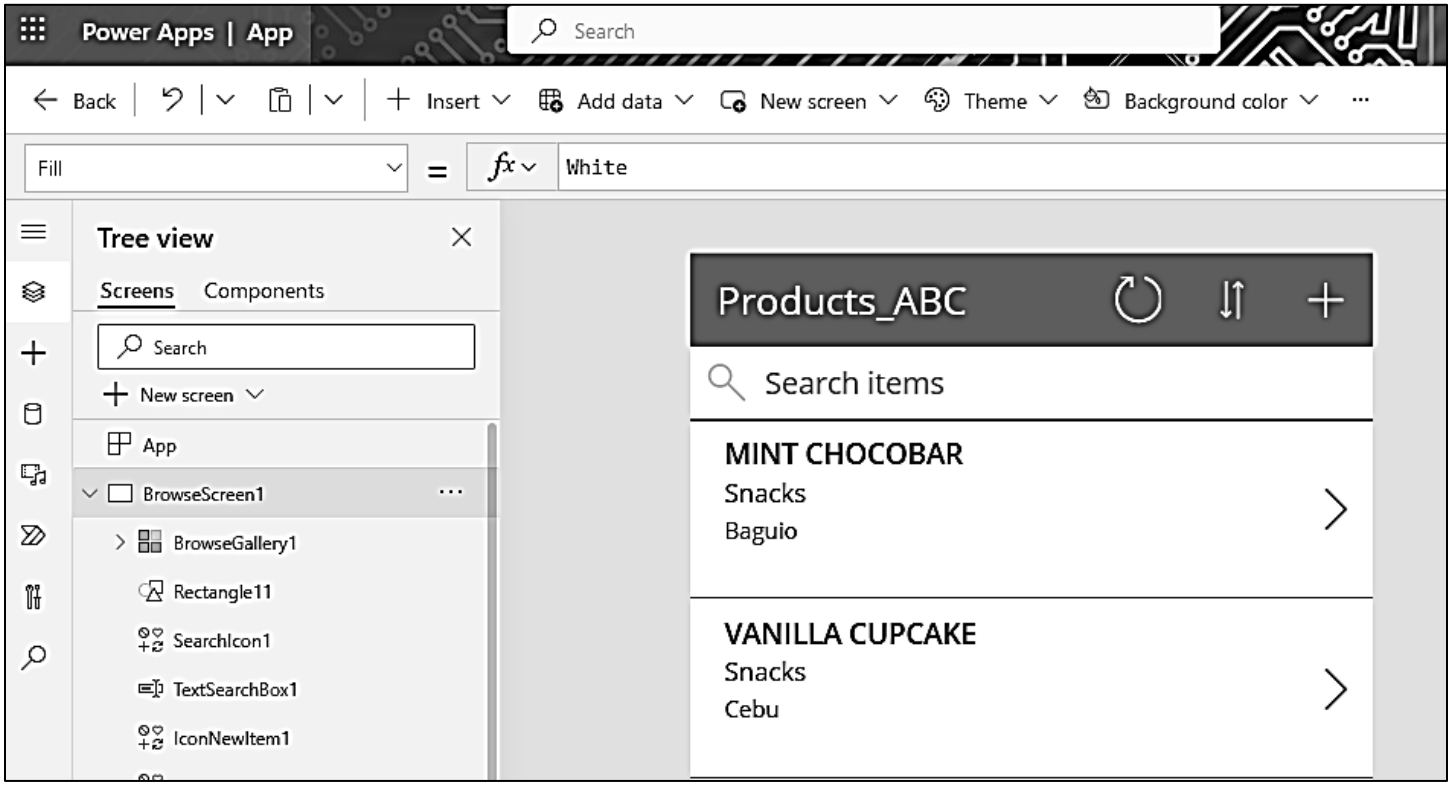


f. Select a connector, then your sharepoint site, then your sharepoint list

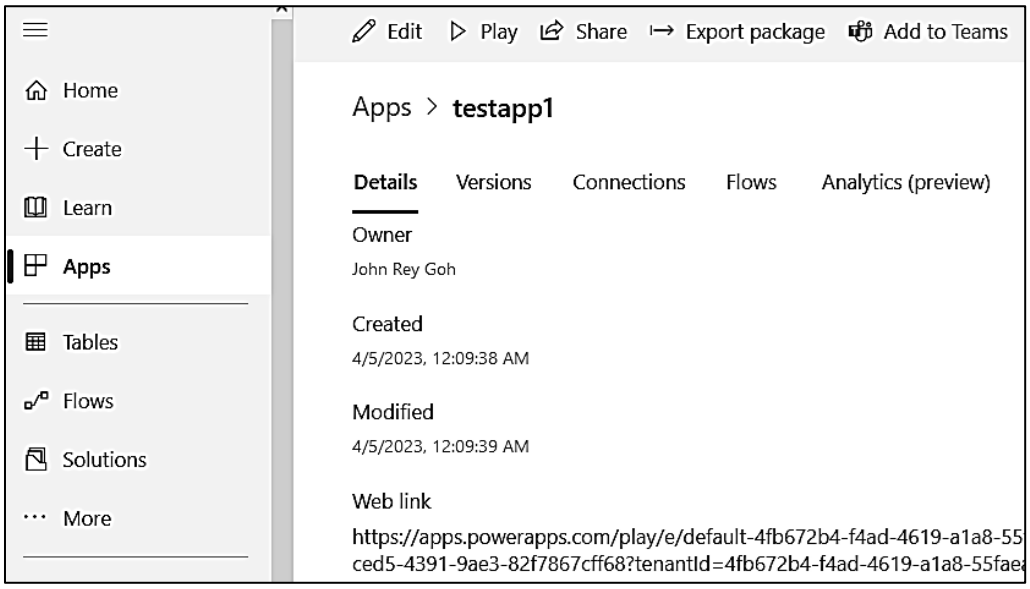


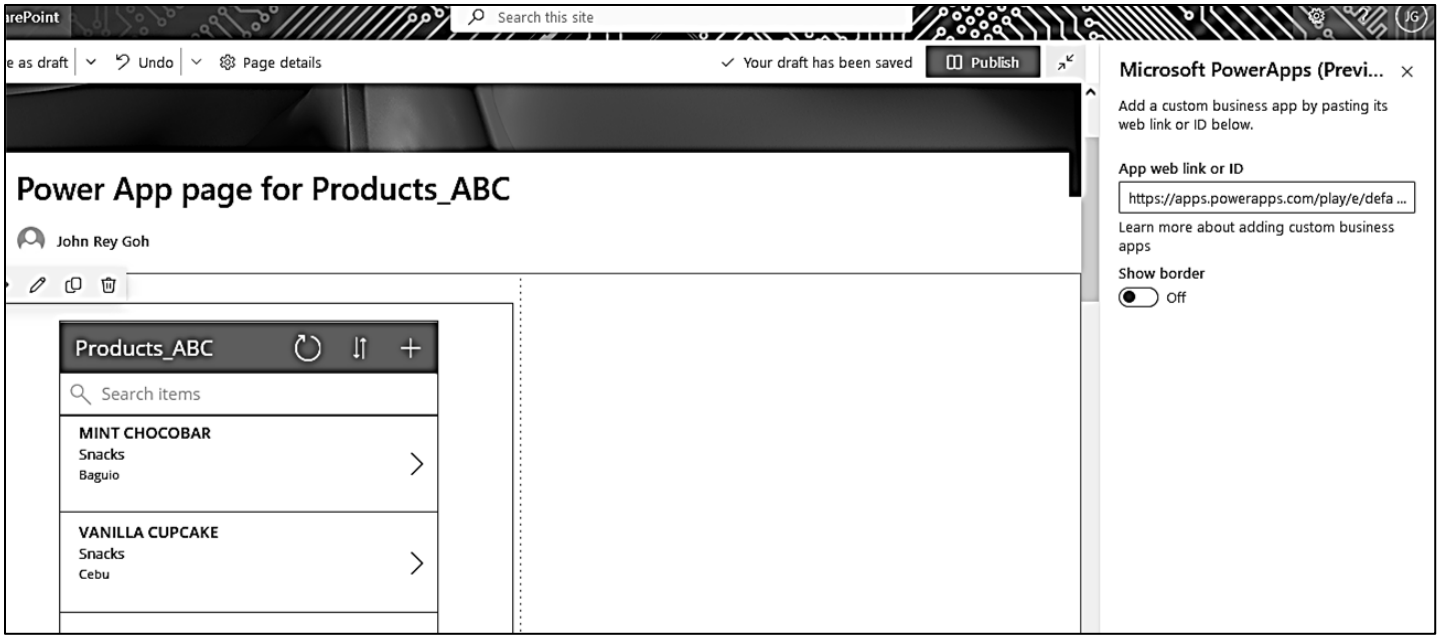


g. It will then try to create a powerapp to handle data management



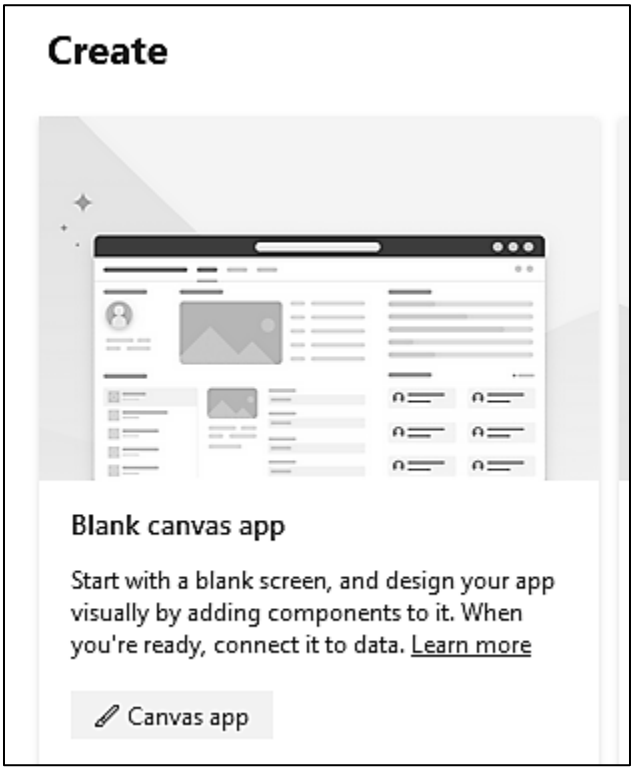
h. Once the app has been created, click on share to get the web link then paste it on the sharepoint page section earlier.



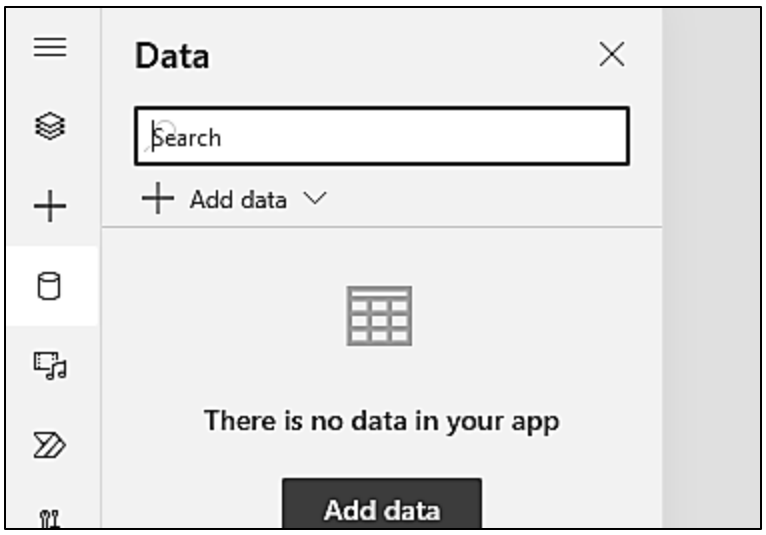


i. Test it after publishing the page

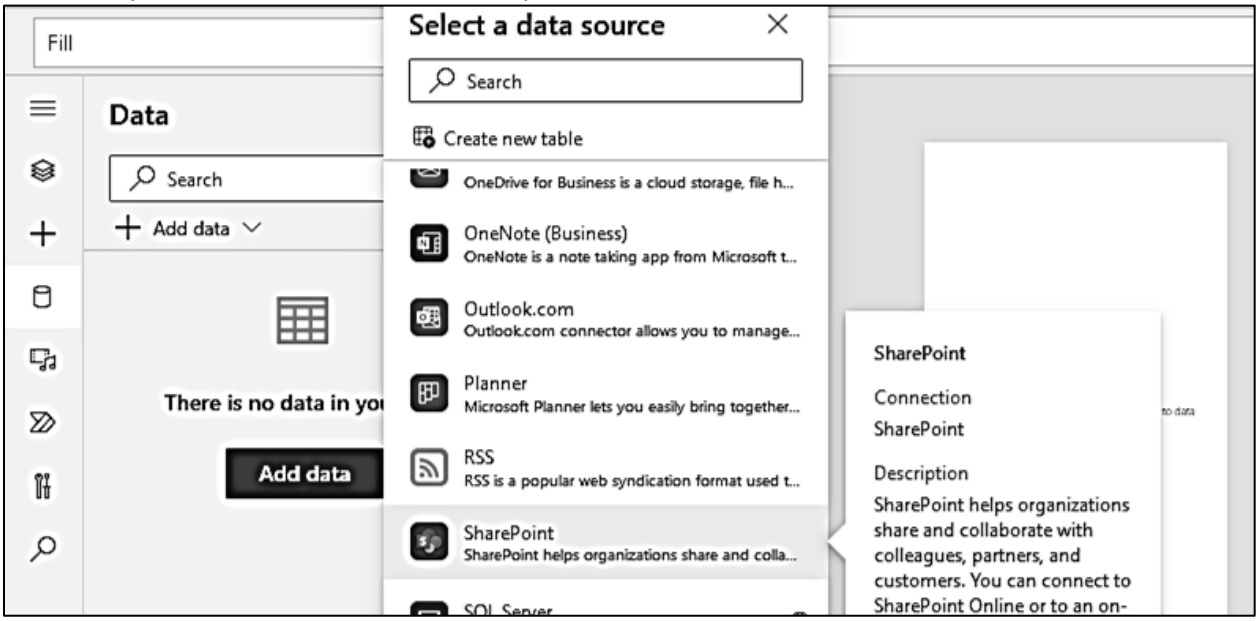
j. Now let us try creating a powerapp app from scratch,
powerapp→create blank→blank canvas→give the app a name→select phone layout



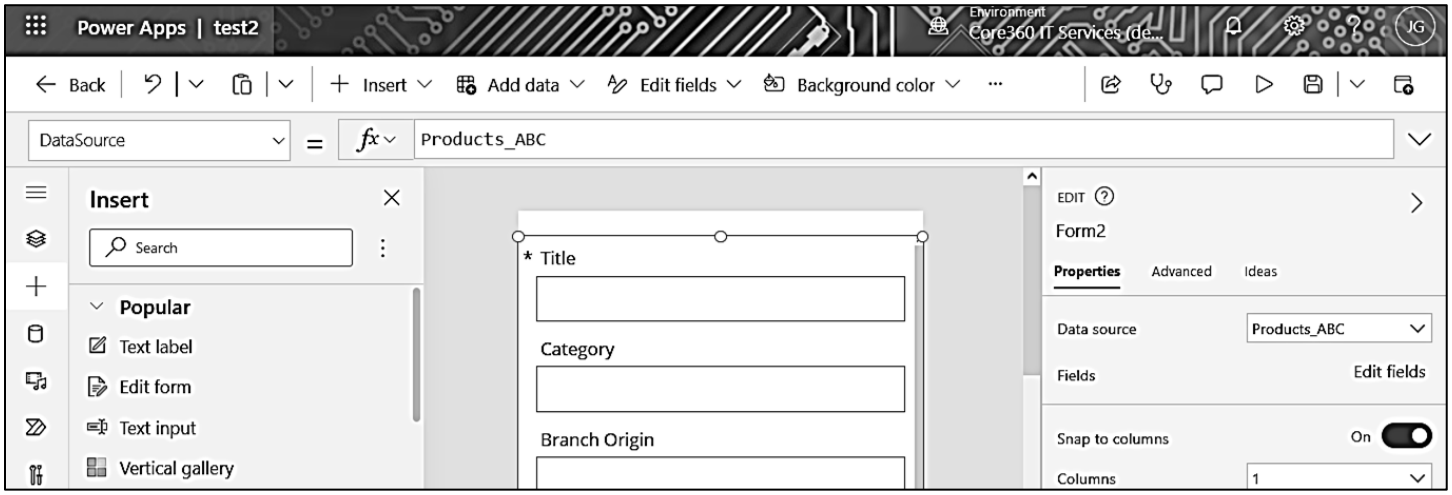
k. Now click on data to add a data connector



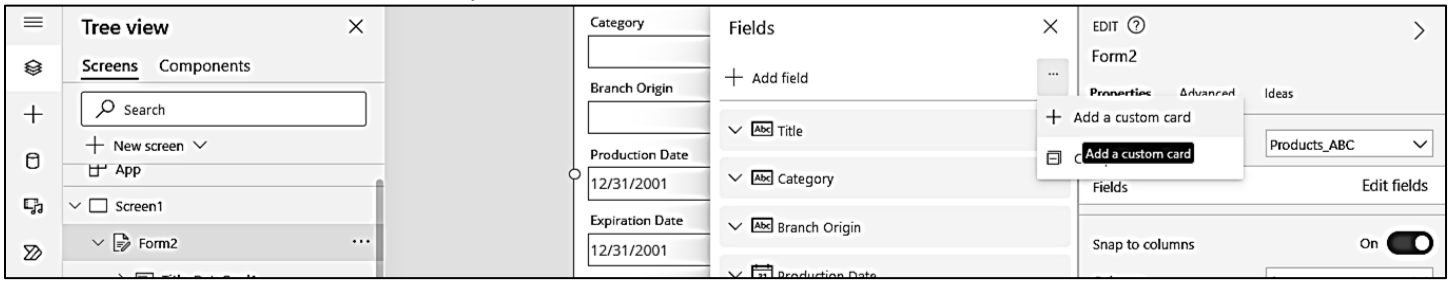
l. Create a sharepoint connector, select the sharepoint site, choose a list and connect



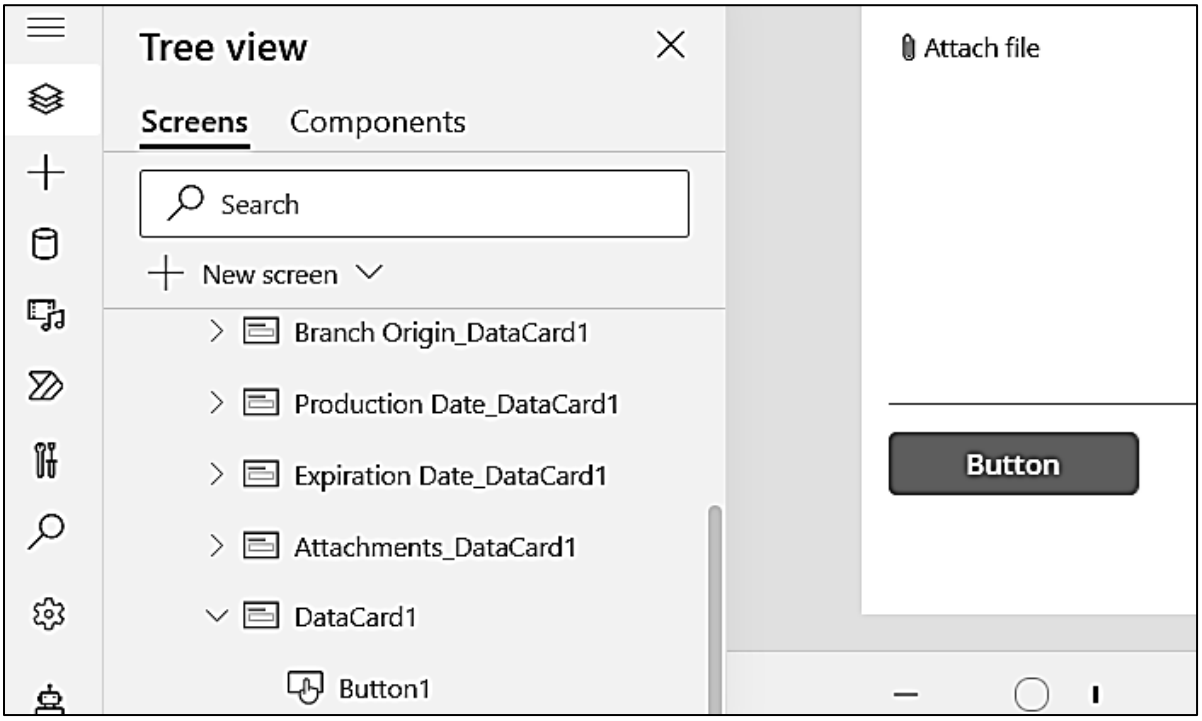
m. Click the + on the left to add an edit form then set its data source



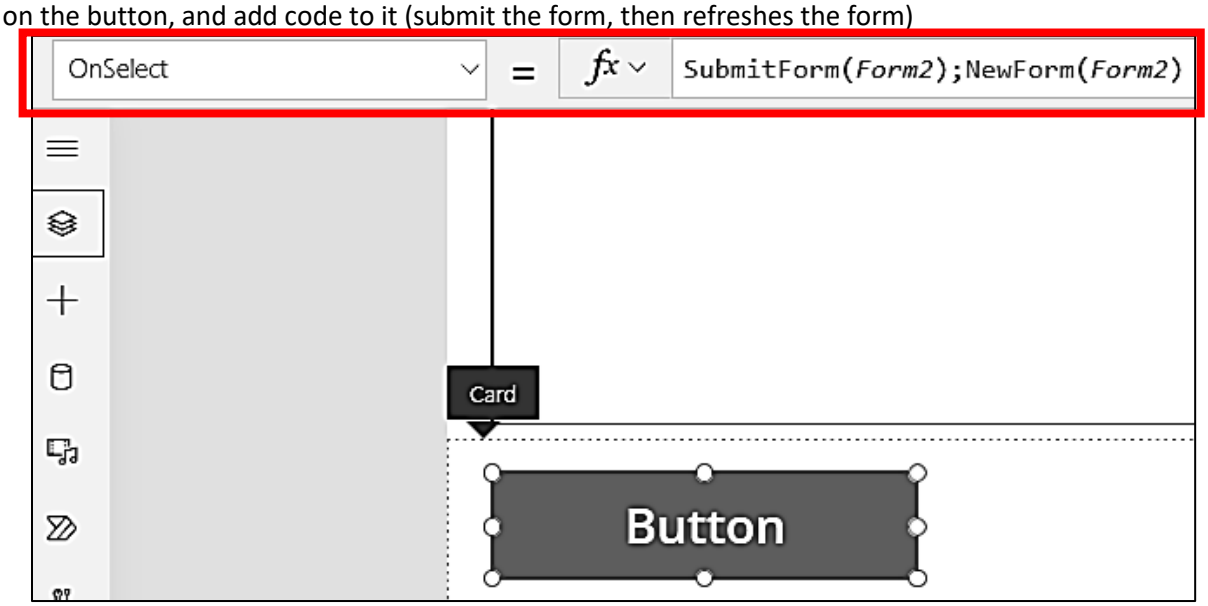
n. Navigate to the tree view→click on your form from the tree view→then on the right click on edit fields and add a custom card. This is where we will place our submit button.



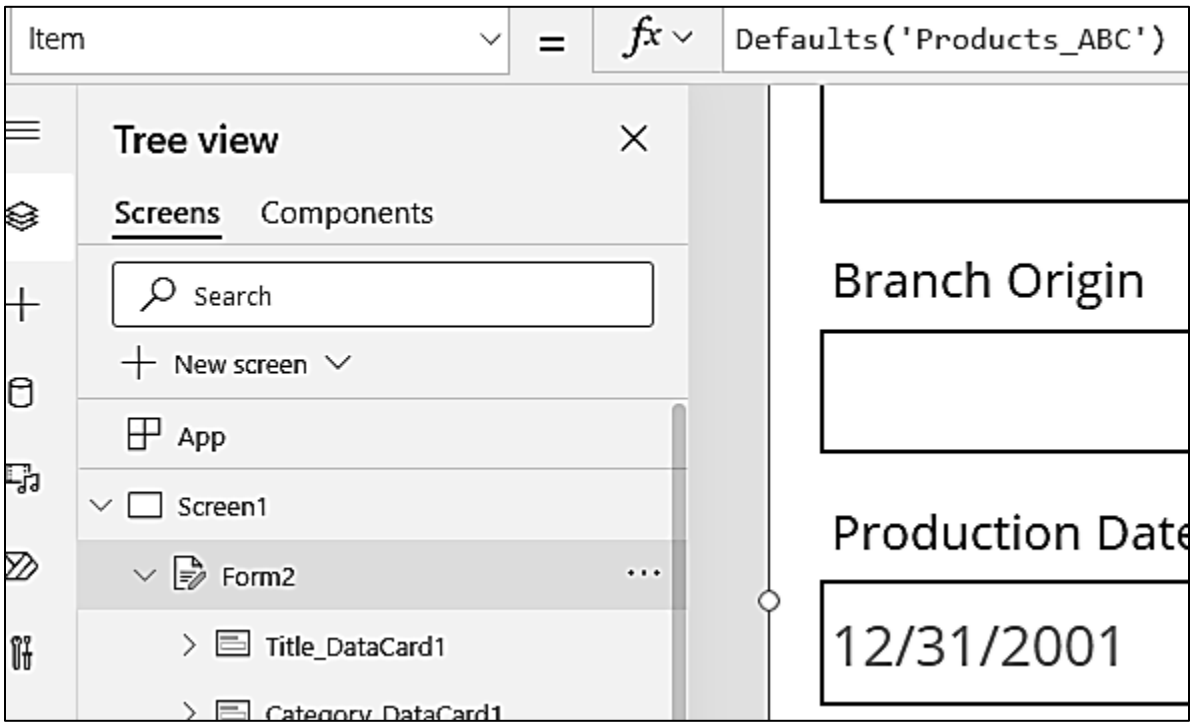
o. Add a button from our components on the left to the custom card you created.



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
    a. Discuss use case for AI Builder
    b. 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