



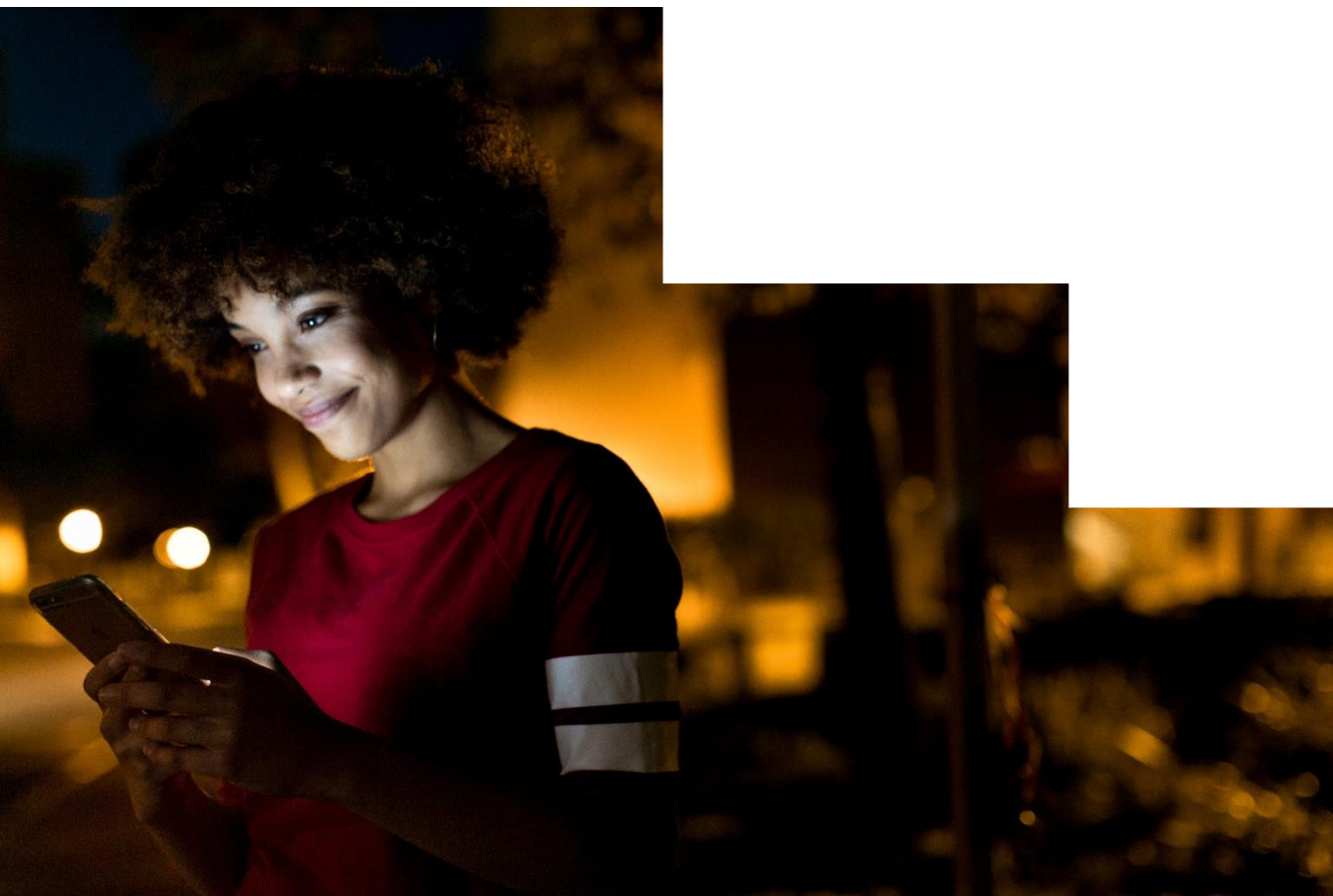
Robotic Process Automation in a Day

Lab 7 – Use Microsoft Teams to integrate approvals

30 mins

April 2023

Applies to Power Automate Desktop v. 2.31.105.23101 ([more](#))



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Lab Overview

You will complete the following tasks in this lab, which will complete the end-to-end invoice processing solution:

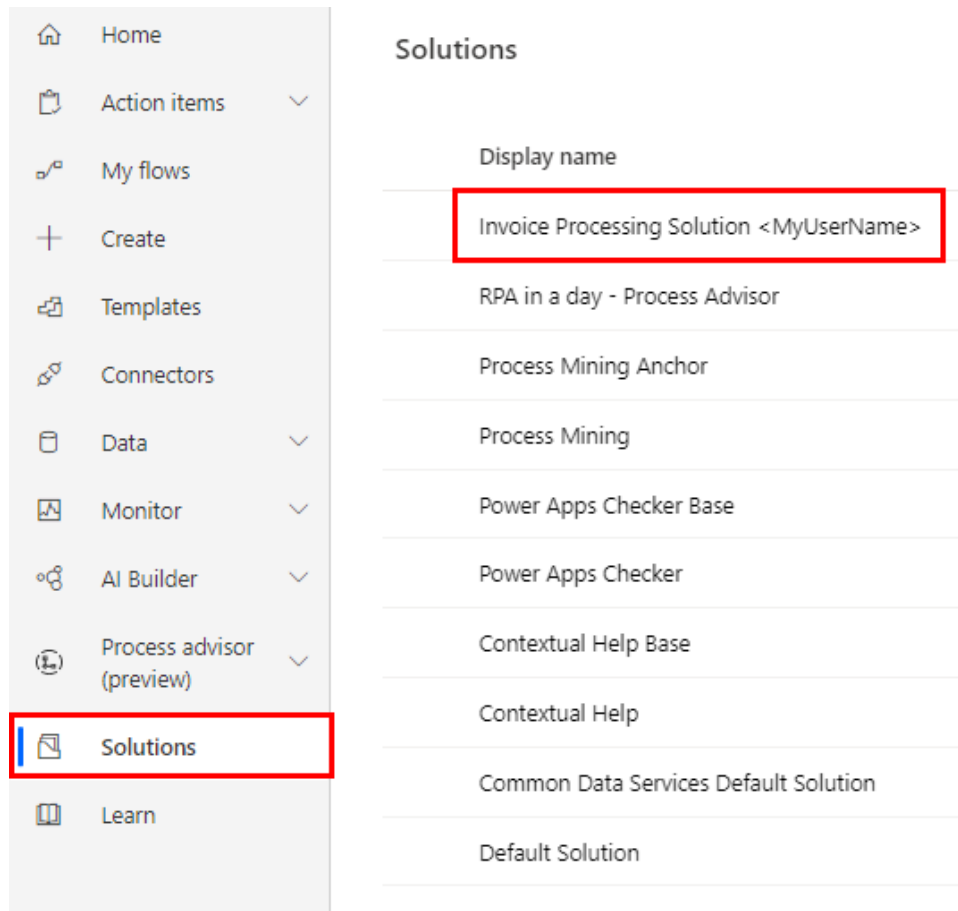
- Integrate a Microsoft Teams-based approval model and the associated conditional logic into the invoice processing Cloud flow
- Integrate the Desktop flow for entering the invoice information into the approval process
- Integrate Outlook-based approval/rejection notifications into the invoice process
- Perform a test of the end-to-end invoice processing Cloud flow

Prerequisites

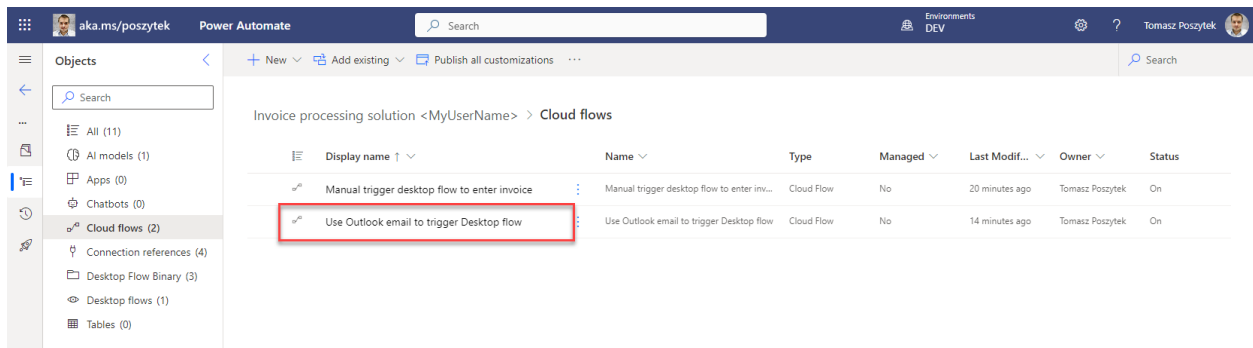
This lab builds on the initial setup lab (lab 1), and labs 2-6 – ensure these labs are complete.

Use Microsoft Teams to get approval. End to end integration

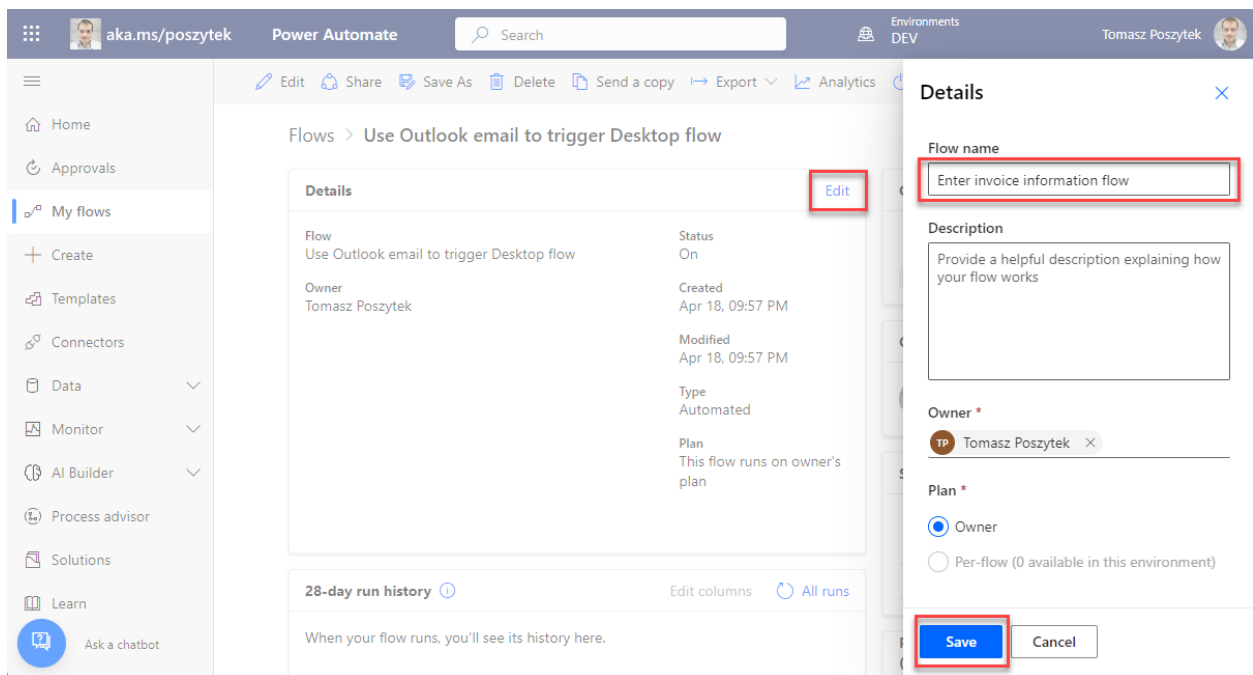
1. Open the test profile in a browser and navigate to <https://make.powerautomate.com/>
2. Select **Solutions** from the navigation bar, then open **Invoice processing solution**.



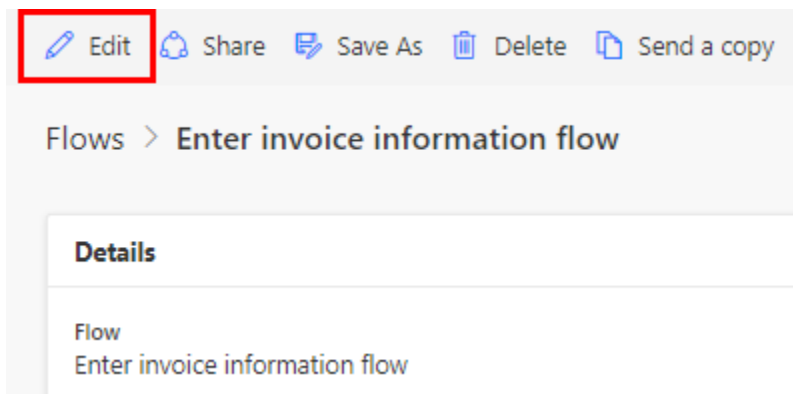
3. Open Use Outlook email to trigger Desktop flow that you created in Lab 5.



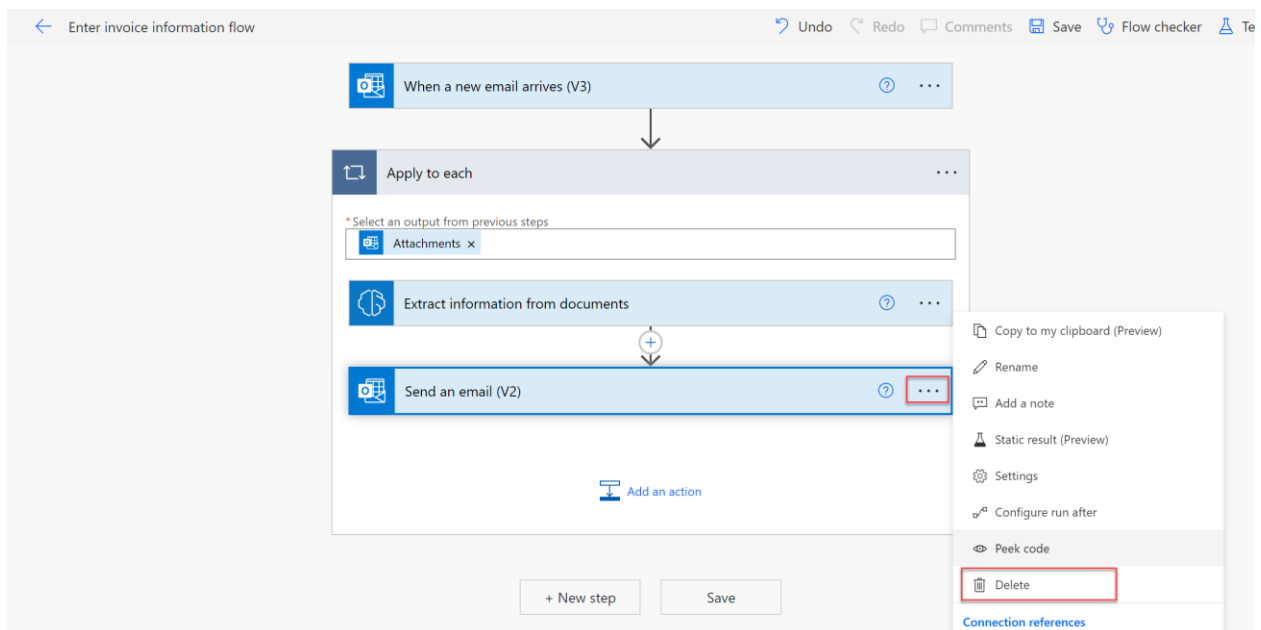
4. Click **Edit** link and in the **Details** pane change flow's name to **Enter invoice information flow** and hit **Save** button.



5. Click **Edit**.



6. Expand **Apply to each** box. Delete the **Send an email (V2)** action you have created.



7. Click **Add an action**.

Apply to each

* Select an output from previous steps

Attachments x

Extract information from documents

* AI model Enter invoice information AI model

* Form type JPEG Image

* Form Attachments C... x

Show advanced options

Add an action

8. Search teams in the search bar, select **Microsoft Teams**.

Choose an operation

teams

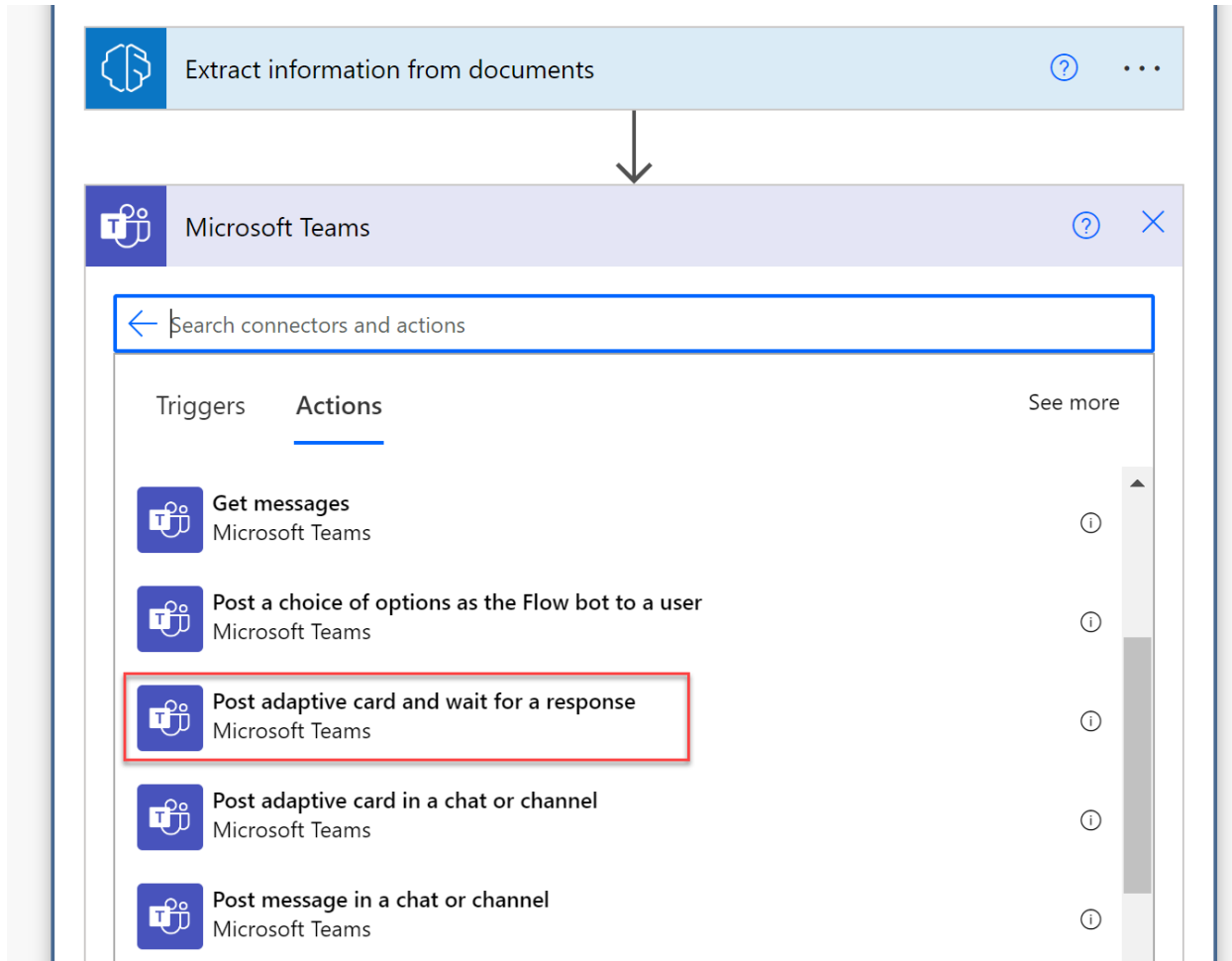
All Built-in Standard Premium Custom My clipboard

Microsoft Teams RiskIQ Powell Teams Content Moderator Evocom Trello Secure Code Warrior...

Note: For this example, we will use technology called **Adaptive Cards**. Its aim is to let users to design layout for their content that will be displayed in apps (for example Microsoft Teams, Cortana, Outlook) using these apps' User Experience. For more information please visit: <https://aka.ms/adaptivecards>.

For the purposes of this lab, you can use JSON code that you can find under **lab data packages** in student's materials. If you are interested in designing your own Adaptive Card, please visit the designer experience at: <https://adaptivecards.io/designer/>.

9. Select **Post an Adaptive Card** and wait for a response.



10. Use following values:

- **Post as:** Flow bot
- **Post in:** Chat with Flow bot
- **Message:** Input the JSON code from the file: **AdaptiveCard-lab7.json** found in the student lab data packages.

- After you copy-paste the JSON code, replace the following data in the message content:
 - a. #BILL TO# with **Bill to value** (from dynamic content for action **Extract information from documents**)
 - b. #CONTACT# with **Contact value** (from dynamic content for action **Extract information from documents**)
 - c. #DATE# with **Date value** (from dynamic content for action **Extract information from documents**)
 - d. #TOTAL# with **Total value** (from dynamic content for action **Extract information from documents**)

* Message

```
{ "$schema": "http://adaptivecards.io/schemas/adaptive-card.json", "type":
"AdaptiveCard", "version": "1.2", "body": [ { "type": "ColumnSet", "columns": [ {
"type": "Column", "width": "stretch", "items": [ { "type": "TextBlock", "text":
"Invoice approval", "weight": "Bolder", "size": "Large" }, { "type": "TextBlock",
"text": "Please review and approve the invoice", "isSubtle": true, "wrap": true }, {
"type": "TextBlock", "isSubtle": true, "text": "Issued for", "weight": "Bolder" } ] }, {
"type": "Column", "width": "150px", "items": [ { "type": "Image", "url":
"https://i.imgur.com/7aTcYQl.jpg", "width": "160px", "spacing": "None",
"horizontalAlignment": "Right", "size": "Medium" } ] } ], { "type": "ColumnSet",
"columns": [ { "type": "Column", "width": 2, "items": [ { "type": "FactSet", "facts":
[ { "title": "Company name", "value": "#BILL TO#" }, { "title": "Contact", "value":
"#CONTACT#" }, { "title": "Issue date", "value": "#DATE#" } ] }, { "type": "TextBlock", "text": "Total amount", "weight": "Bolder", "color": "Dark", "size": "Medium",
"weight": "Bolder", "color": "Dark" }, { "type": "TextBlock", "isSubtle": true, "text":
```

- Update message: Thank you for your response!
- Recipient: Your email address (User ID)

↓

Post adaptive card and wait for a response

* Post as
Flow bot

* Post in
Chat with Flow bot

* Message

```
{ "$schema": "http://adaptivecards.io/schemas/adaptive-card.json", "type":
"AdaptiveCard", "version": "1.2", "body": [ { "type": "ColumnSet", "columns": [ {
"type": "Column", "width": "stretch", "items": [ { "type": "TextBlock", "text":
"Invoice approval", "weight": "Bolder", "size": "Large" }, { "type": "TextBlock",
"text": "Please review and approve the invoice", "isSubtle": true, "wrap": true }, {
"type": "TextBlock", "isSubtle": true, "text": "Issued for", "weight": "Bolder" } ] }, {
"type": "Column", "width": "150px", "items": [ { "type": "Image", "url":
"https://i.imgur.com/7aTcYQl.jpg", "width": "160px", "spacing": "None",
"horizontalAlignment": "Right", "size": "Medium" } ] } ] }, { "type": "ColumnSet",
"columns": [ { "type": "Column", "width": 2, "items": [ { "type": "FactSet", "facts":
[ { "title": "Company name", "value": "Bill to value × " }, { "title":
"Contact", "value": "Contact value × " }, { "title": "Issue date", "value": "
Date value × " } ] }, { "type": "TextBlock", "text": "Total
amount is: Total value × ", "size": "Large", "weight": "Bolder" } ] } ] }, {
"type": "Action.ShowCard", "title": "Reject", "card": { "type":
"AdaptiveCard", "body": [ { "type": "Input.Text", "id": "ac_comment_reject",
"isMultiline": true, "placeholder": "Please enter a comment (required)" } ],
"actions": [ { "type": "Action.Submit", "id": "ac_reject", "title": "Confirm" } ],
"$schema": "http://adaptivecards.io/schemas/adaptive-card.json", "id":
"ac_reject1" }, { "type": "Action.ShowCard", "title": "Approve", "card": { "type":
"AdaptiveCard", "body": [ { "type": "Input.Text", "id": "ac_comment_approve",
"isMultiline": true, "placeholder": "Please enter a comment (optional)" } ],
"actions": [ { "type": "Action.Submit", "id": "ac_approve", "title": "Confirm" } ],
"$schema": "http://adaptivecards.io/schemas/adaptive-card.json", "id":
"ac_approve1" } ] } }
```

Update message
Thanks for your response!

* Recipient
Enter a name or email address

11. Click **Add an action**.

"actions": [{ "type": "Action.Submit", "id": "ac_approve", "title": "Confirm" }],
"\$schema": "http://adaptivecards.io/schemas/adaptive-card.json" }, "id":
"ac_approve1"]] }

Update message: Thanks for your response!

* Recipient: Enter a name or email address

Add an action

+ New step Save

12. Search for **condition** in the search bar and select **Condition** in Actions.

Post adaptive card and wait for a response

Choose an operation

condition

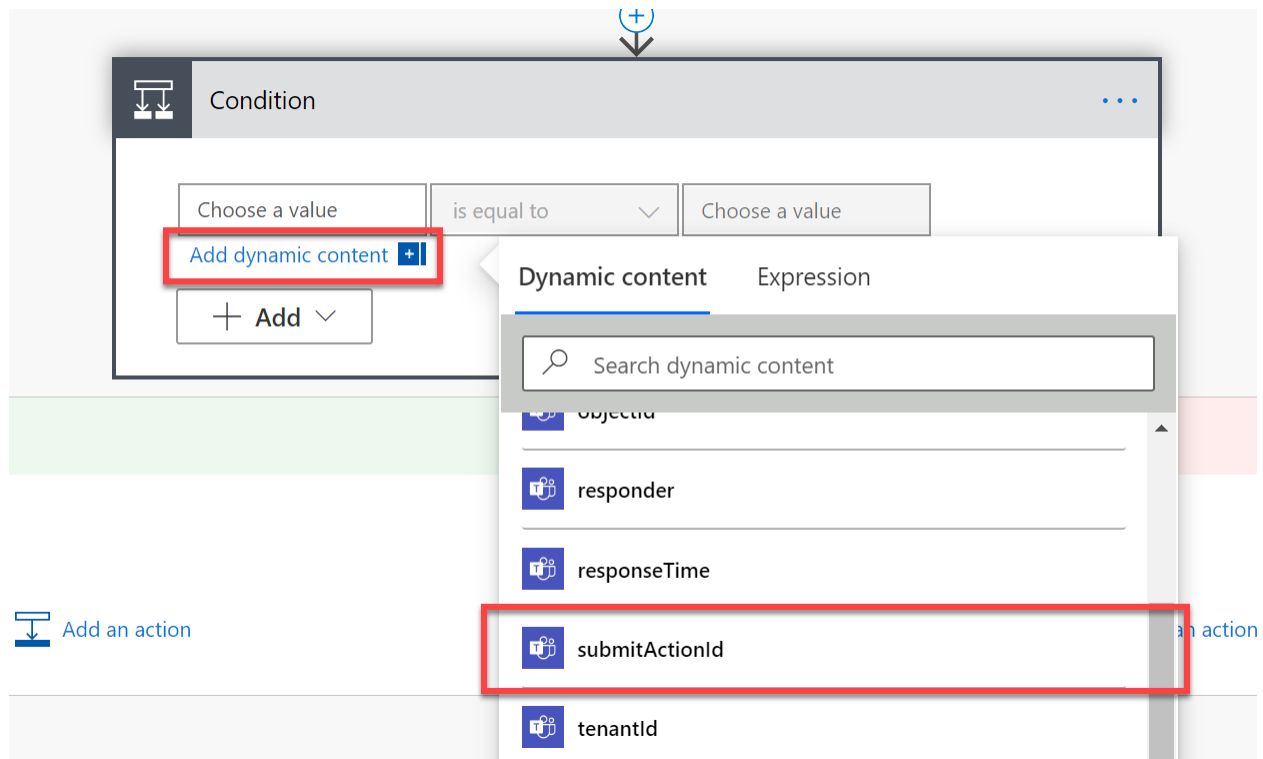
All Built-in Standard Premium Custom My clipboard

Control AccuWeather (Independe... SharePoint intelliHR The Weather Channel... Apptigent PowerTools Acumatica

Triggers **Actions** See more

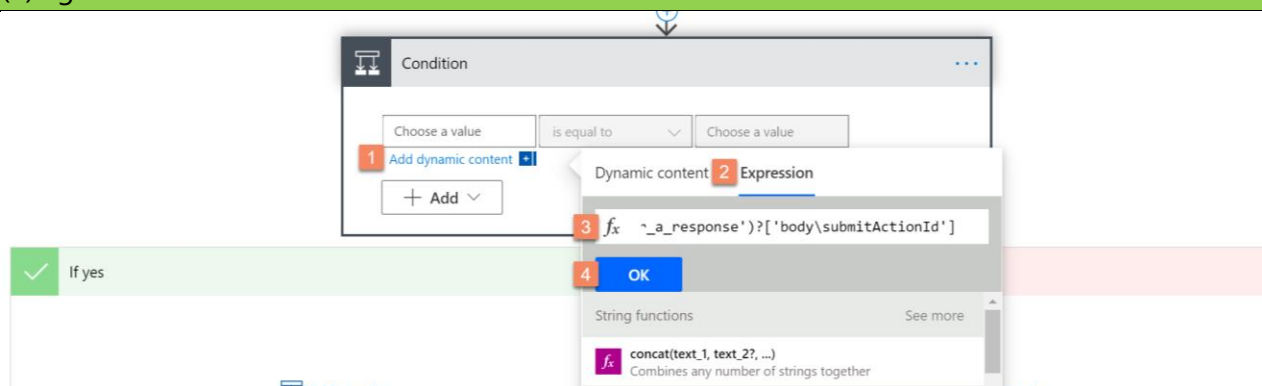
Condition
Control

13. Click on **Add dynamic content** and select **submitActionId** from **Post adaptive card and wait for a response** outcomes:



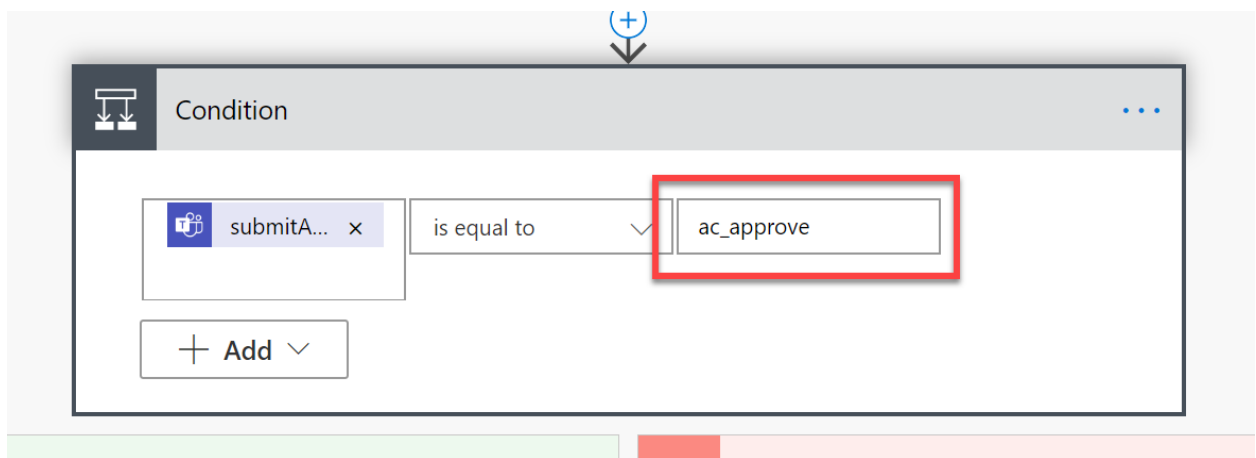
Tip 1: If no outcomes for the Teams action can be found, then click on "Add dynamic content" link (1) and then "Expression" (2). **Insert:**
`body('Post_adaptive_card_and_wait_for_a_response')['submitActionId']`
in the field (3) and click "OK" (4).

Tip 2: If you are prompted that the expression is invalid, simply close the prompt and hit "OK" (4) again.



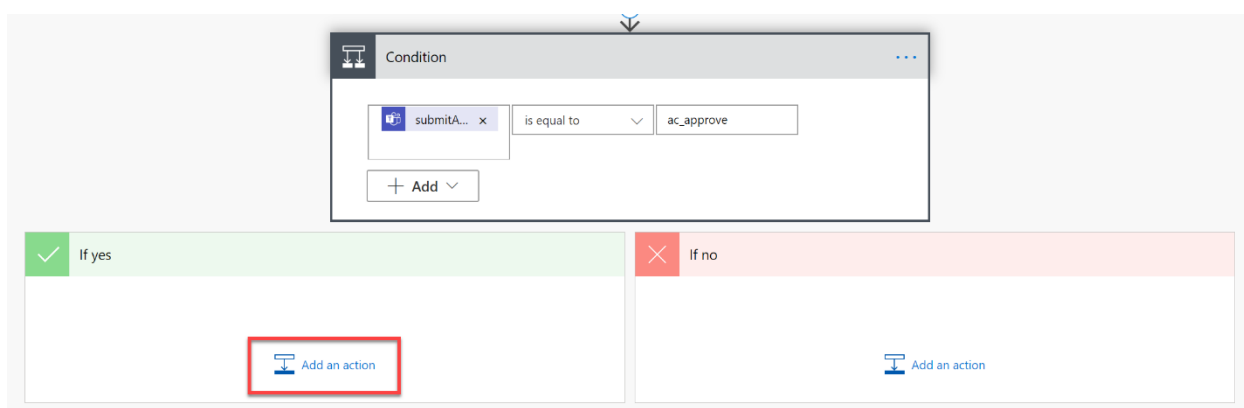
14. Enter **ac_approve** in choose a value field.

Note: Case sensitive. Make sure the capitalization is same as above.



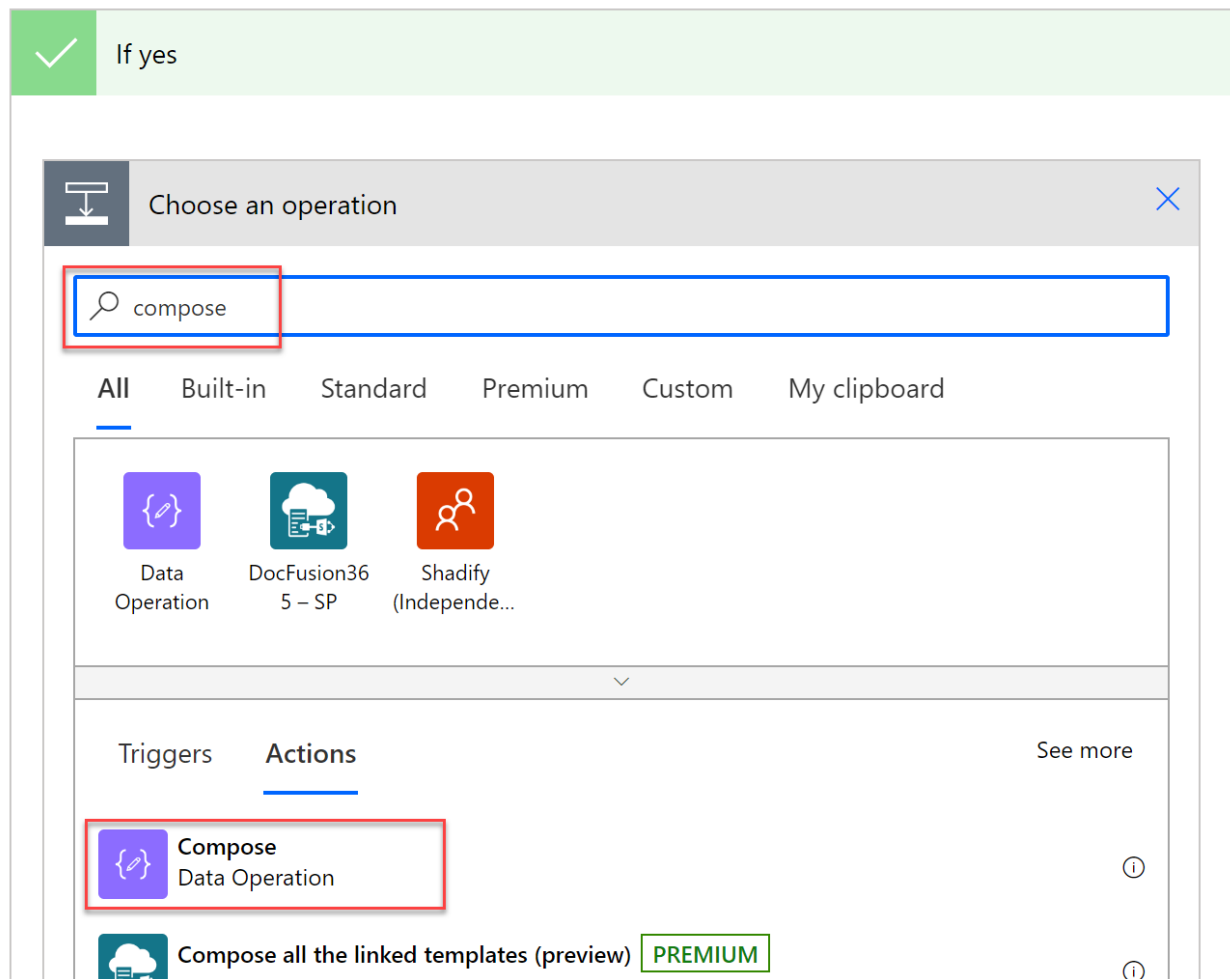
Note: The **ac_approve** value was defined in our Adaptive Card JSON payload and represents our **Approve** button that is rendered at runtime.

15. Click **Add an action** under If Yes branch.

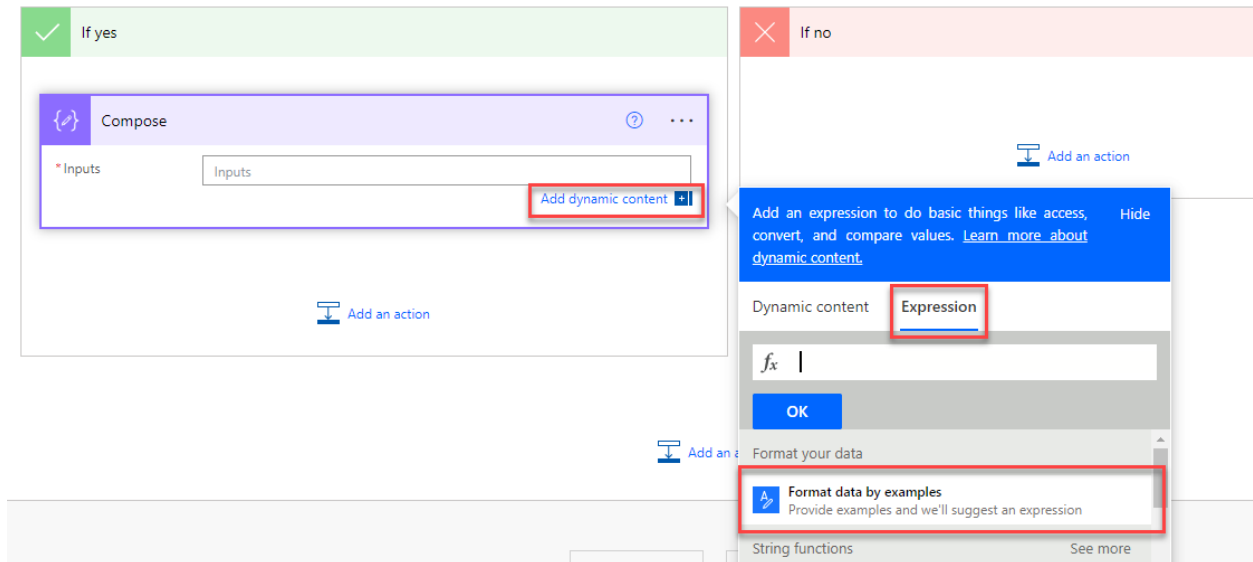


16. If the approval result is Yes, we will launch the desktop flow to process this invoice and then send a confirmation email to the invoice sender.

17. First the Total value needs to be converted to a number. To do that, type "Compose" in the search bar and select the **Compose** action.



18. Select **Add dynamic content**, switch to **Expression** and then select the option "Format data by examples".



19. Now select the field "Total value" from the list of visible dynamic contents, and then type the following values:

Example value for Total value	Desired output
\$3,454.12	3454.12
\$3,454.12 USD	3454.12

20. Now click “Get expression” button:

Format data by examples

Total value

Provide example

Enter examples of how you want to format the selected item and we'll suggest an expression that will perform the desired formatting. [Learn more](#)

Example value for Total value	Desired output
\$3,454.12	3454.12
\$3,454.12 USD	3454.12

+ Add example

Get expression

21. And click “Apply”

Suggested expression

We found an expression for you; if it looks good, apply it to your flow. If this is not the result you want, try adding another example.

```
formatNumber(float(slice(outputs('Extract_information_from_documents')  
[ 'body/responsev2/predictionOutput/labels/Total/value' ],  
add(indexOf(outputs('Extract_information_from_documents')?  
[ 'body/responsev2/predictionOutput/labels/Total/value' ], '$'), 1),  
add(indexOf(outputs('Extract_information_from_documents')?  
[ 'body/responsev2/predictionOutput/labels/Total/value' ], '.'), 3))),  
'0.00')
```

Test value **Output**

Enter text here Result

Test

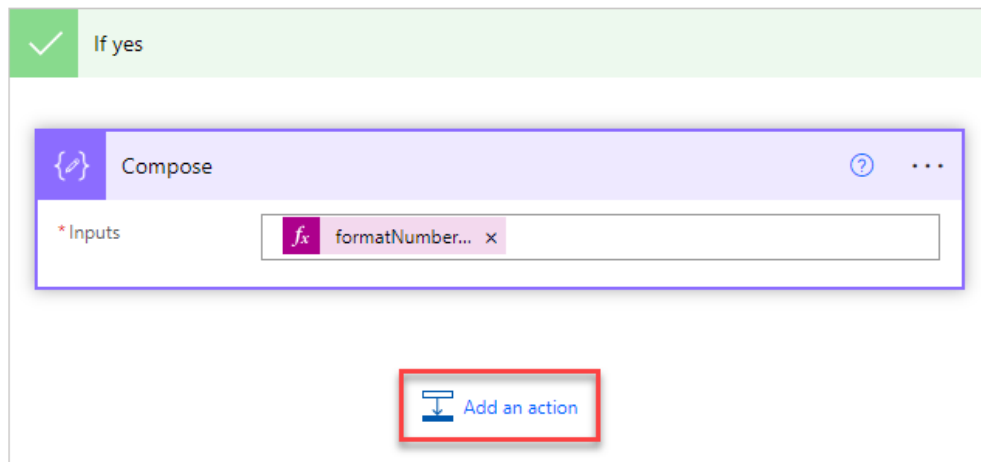
Resources

- See documentation
- Watch tutorials
- Give feedback

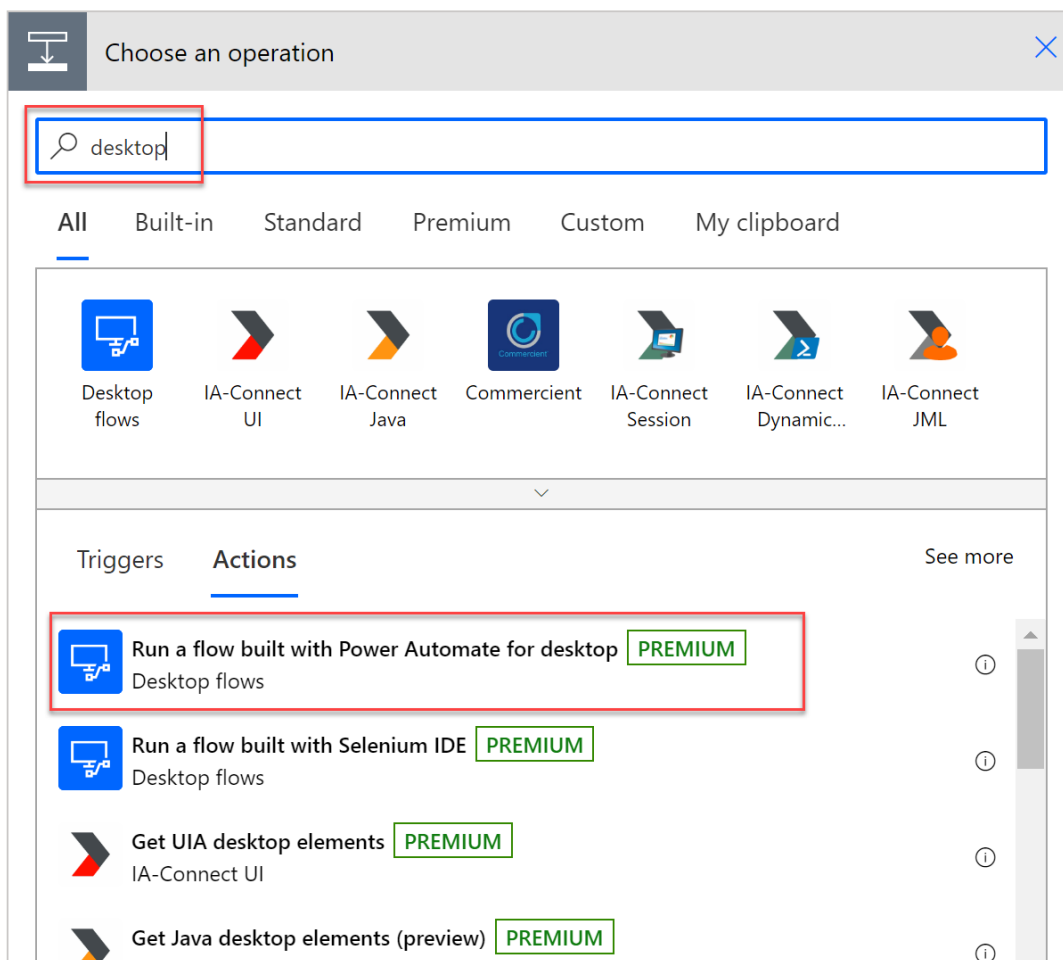
Apply Cancel

In general, what you received, is an expression, that first replaces dollar sign (\$) and/ or USD abbreviation with an empty string and then converts the remaining string to a float number. Assuming the total value is \$3,454.12, you will receive: 3454.12.

22. Click **Add an action** below.



23. Select **Run a flow built with Power Automate Desktop**.



24. Select **Enter an invoice** flow.

✓ If yes

Compose ? ...

↓

Run a flow built with Power Automate for desktop ? ...

* Desktop flow: **Enter an invoice** ▼ **Edit**

* Run Mode: Choose between running while signed in (attended) or in the b... ▼

Amount: Amount

Contact: Contact email

Accountname: Account name

[Show advanced options](#) ▼

[Add an action](#)

25. Use these values:

Run Mode: Attended – Runs when you are logged into device

Amount: Outputs (from dynamic content under **Compose** action)

Contact: Contact value (from dynamic content under **Extract information from documents** action)

Account name: Bill to value (from dynamic content under **Extract information from documents** action)

The screenshot shows the configuration for a 'Compose' action in Microsoft Power Automate. The configuration panel for 'Run a flow built with Power Automate for desktop' is displayed. The 'Desktop flow' is set to 'Enter an invoice'. The 'Run Mode' is set to 'Attended (runs when you're signed in)'. The 'Amount' field is set to 'Outputs', 'Contact' is set to 'Contact value', and 'Accountname' is set to 'Bill to value'. A red box highlights the 'Run Mode' and the three dynamic content fields. At the bottom, there is a button to 'Add an action'.

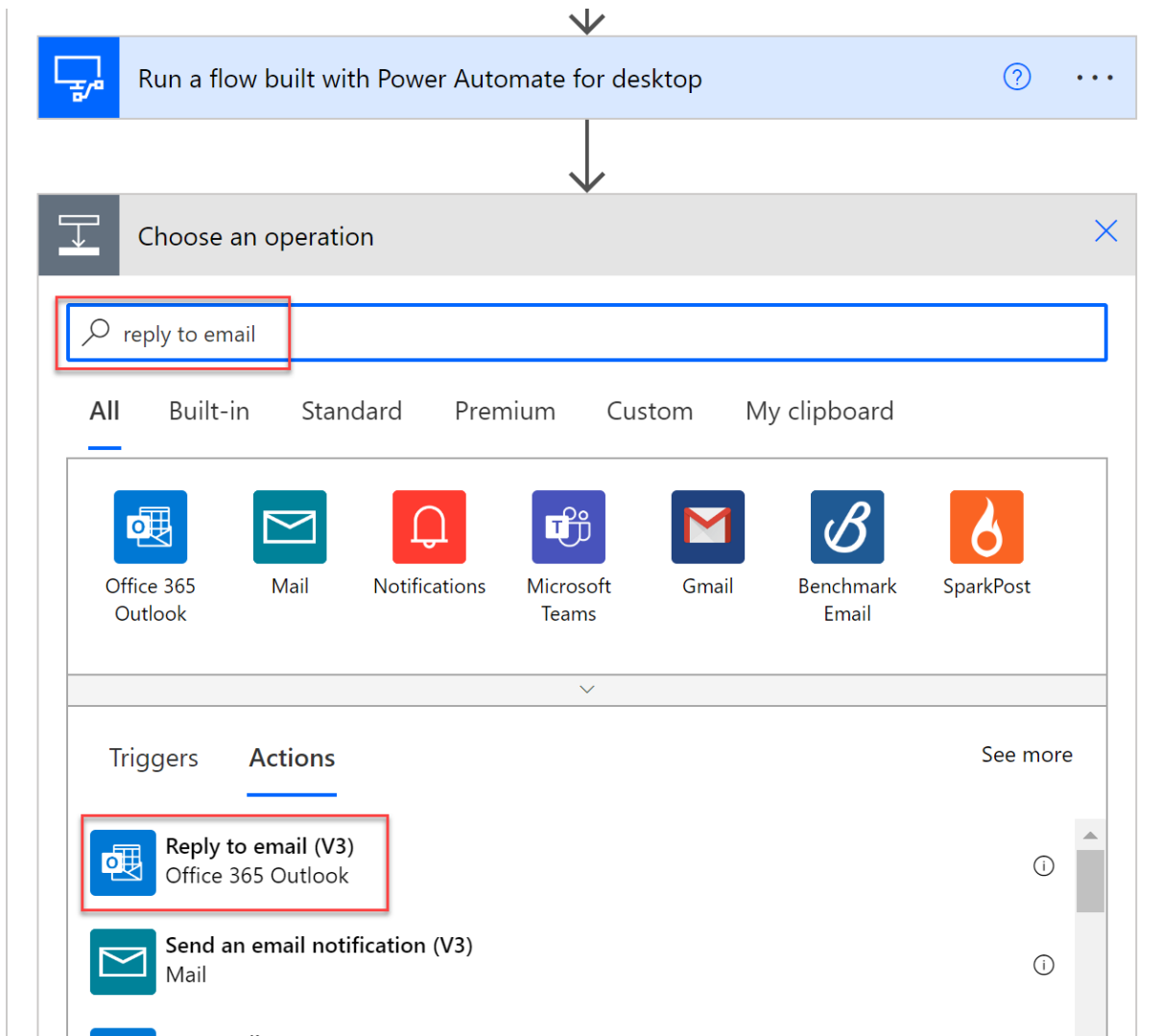
26. Click **Add an action** inside the **If yes** branch.

The screenshot shows the configuration interface for a Power Automate flow. The top step is 'Compose', which is highlighted in purple. Below it, the 'Run a flow built with Power Automate for desktop' step is highlighted in blue. The configuration for this step includes:

- * Desktop flow: Enter an invoice (with an 'Edit' button)
- * Run Mode: Attended (runs when you're signed in)
- Amount: Outputs (with a plus icon and a close 'x' icon)
- Contact: Contact value (with a plus icon and a close 'x' icon)
- Accountname: Bill to value (with a plus icon and a close 'x' icon)

At the bottom, there is a link 'Show advanced options' with a downward arrow. A red box highlights the 'Add an action' button at the bottom center.

27. Select **Reply to email (V3)** action.



28. **Message id:** Message Id (from dynamic content for action **When a new email arrives (V3)**)


- **Body:** Your invoice of amount **Total value** (from dynamic content under **Extract information from documents** action) is approved.

The screenshot shows the 'Reply to email (V3)' form in Power Automate. The form is titled 'Reply to email (V3)' and has a blue header bar. Below the header, there are several sections:



- Message Id:** A text box containing a dynamic content field 'Message Id' with a blue icon and a close button 'x'.
- Body:** A rich text editor with a toolbar showing font, size, bold, italic, underline, link, unlink, list, and code options. The body text is 'Your invoice of amount **Total value** is approved.', where 'Total value' is a dynamic content field with a blue icon and a close button 'x'.
- Reply All:** A checkbox labeled 'True to reply to all recipients. (default: False)' with a blue checkmark.
- Attachments:** A section with a dashed border containing:
 - Attachments Name - 1:** A text box with the placeholder 'Attachment name'.
 - Attachments Content - 1:** A text box with the placeholder 'Attachment content'.
 - + Add new item:** A button to add more attachments.
- Original Mailbox Address:** A text box with the placeholder 'Address of the shared mailbox to reply from.'.
- Show advanced options:** A link with a dropdown arrow.

29. Click **Show advanced options**.


↓












Reply to email (V3)




* Message Id


 Message Id x


Body

Font ▼ 12 ▼ **B** *I* U         

Your invoice of amount  Total value x is approved.

Reply All

True to reply to all recipients. (default: False) 


Attachments Name - 1 

Attachment name

Attachments Content -


1

Attachment content

 Add new item


Original Mailbox Address

Address of the shared mailbox to reply from.



Show advanced options 

30. Enter **Your invoice is approved** in **Subject** field.


▼








Reply to email (V3)




* Message Id


 Message Id x

Body

Font ▼ 12 ▼ **B** *I* U     


Your invoice of amount  Total value x is approved.

Reply All

True to reply to all recipients. (default: False) 


Attachments Name - 1

Attachment name



Attachments Content - 1

Attachment content

 Add new item

Original Mailbox Address

Address of the shared mailbox to reply from.

To

Example: recipient1@domain.com; recipient2@domain.com

CC

Example: recipient1@domain.com; recipient2@domain.com


BCC


Example: recipient1@domain.com; recipient2@domain.com

Subject

Your invoice is approved

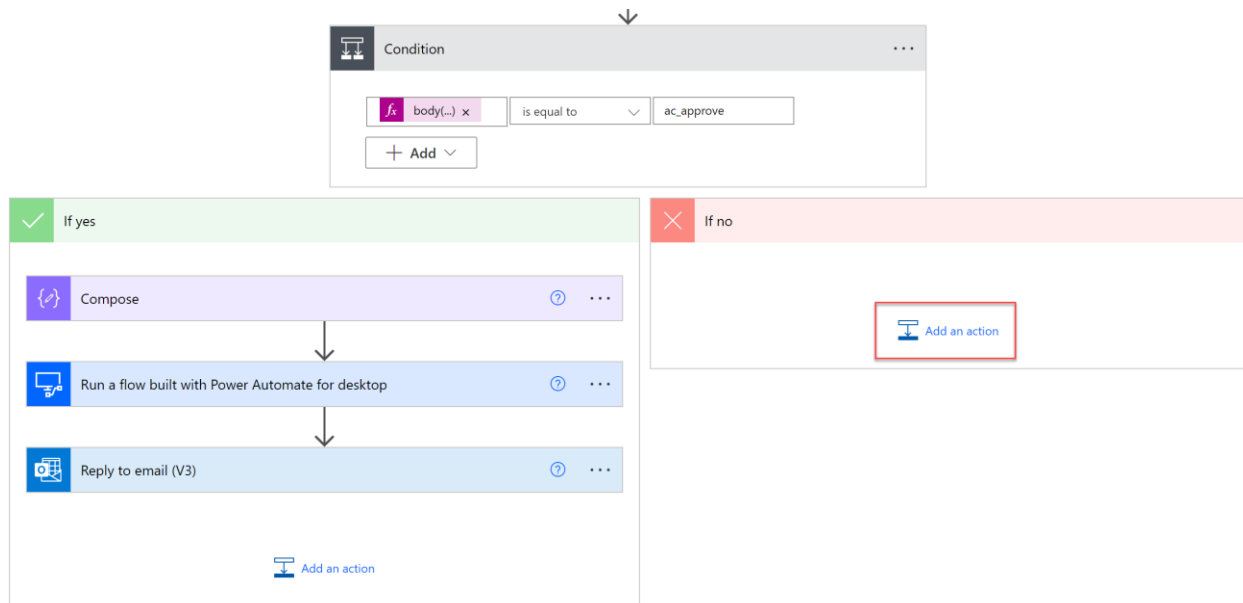
Importance

Pick an importance. (default: Low) 

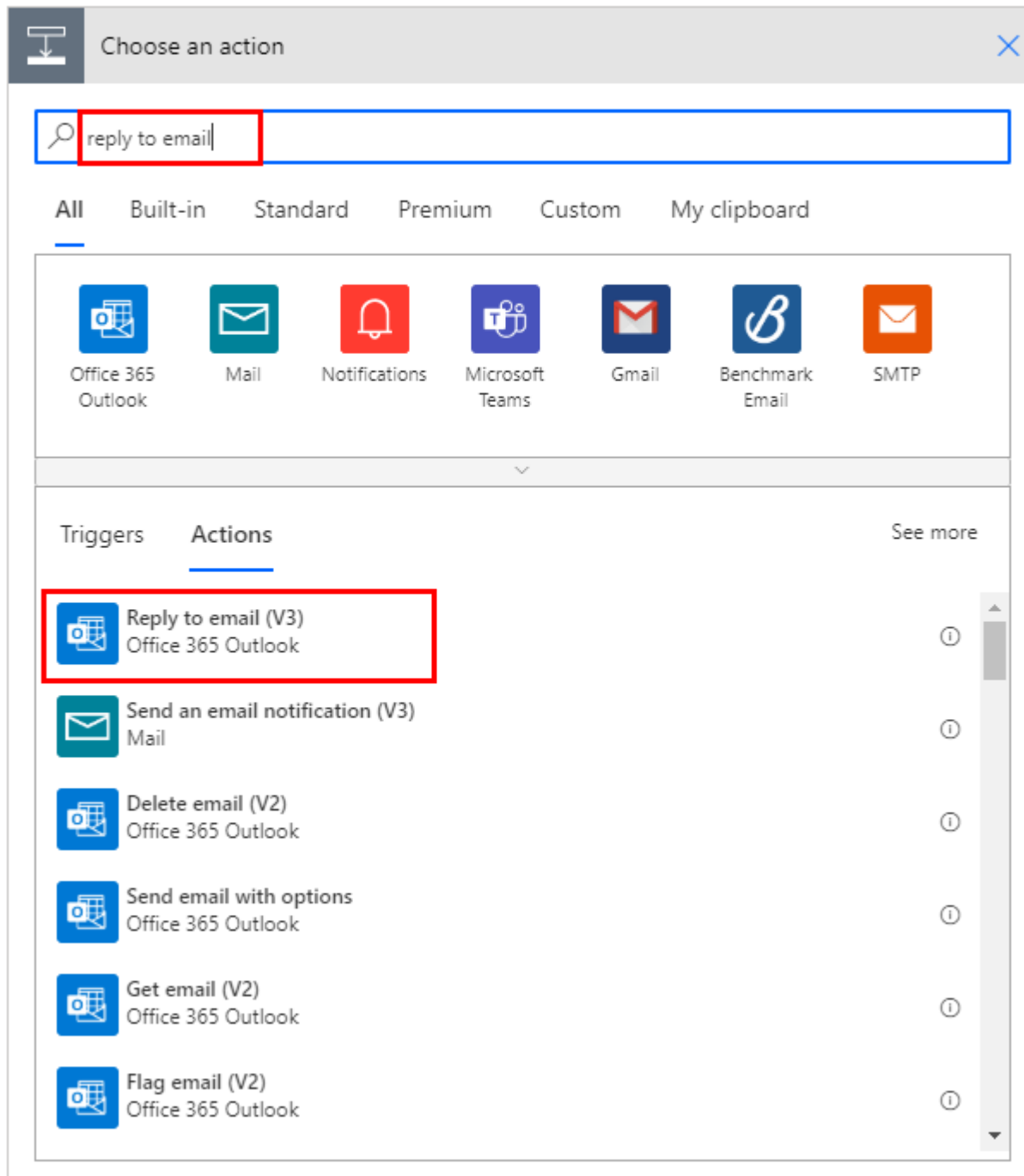
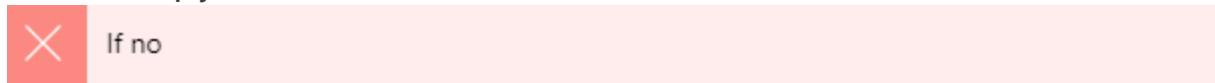
[Hide advanced options](#) 

31. Now we will create the steps for the case if the approval result was No.

32. Click **Add an action** under If no branch.



Select Reply to email action.



33. Enter the values as the screenshot below:

- **Message id:** Use Message Id (from dynamic content for action **When a new email arrives (V3)**)
- **Body:** Your invoice of amount **Total value** (from dynamic content from AI Builder action) is rejected.
- Click **Show advanced options**.
- Enter **Your invoice is rejected** in **Subject** column.

Reply to email (V3) 2

* Message Id: Message Id x

Body: Font 12 B I U [Rich Text Icons] Your invoice of amount Total value x is rejected.

Reply All: True to reply to all recipients. (default: False) ✓

Attachments Name - 1: Attachment name

Attachments Content - 1: Attachment content

+ Add new item

Original Mailbox Address: Address of the shared mailbox to reply from.

To: Example: recipient1@domain.com; recipient2@domain.com

CC: Example: recipient1@domain.com; recipient2@domain.com

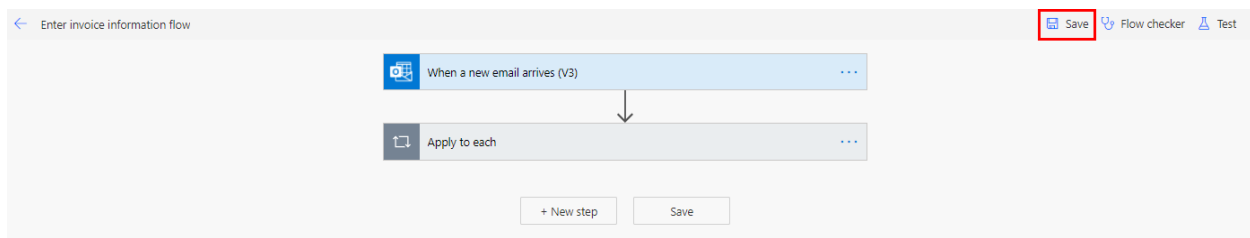
BCC: Example: recipient1@domain.com; recipient2@domain.com

Subject: Your invoice is rejected

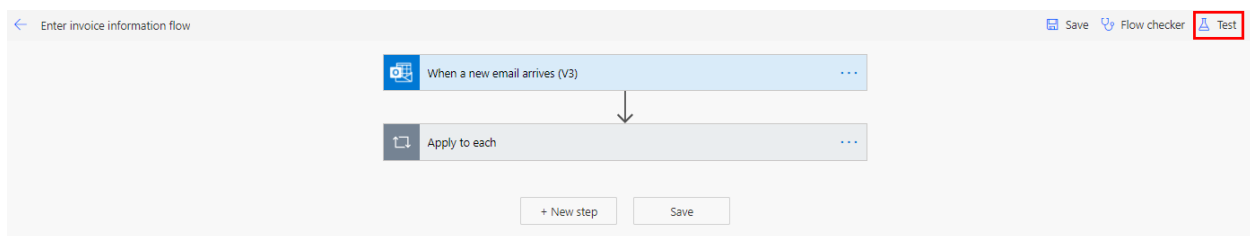
Importance: Pick an importance. (default: Low) ✓

[Hide advanced options](#) ^

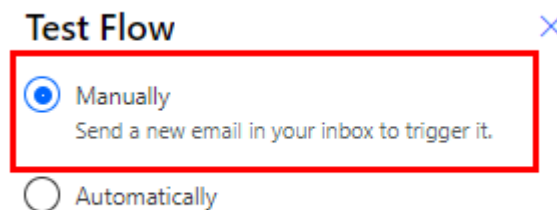
34. Click **Save**.



35. Click **Test**.



36. Select **Manually**, then click **Test**.



37. In a separate tab, open the Teams app (Note: use the browser version, not the desktop app version) and sign in using the same test account. The web version of Microsoft Teams is available at: <https://teams.microsoft.com/>

38. In another separate tab, open the Office 365 Outlook app. The web version of Microsoft Outlook is available at: <https://outlook.office.com/mail/>

39. Compose a new email with the following settings:

- To: {email address of the user identity you are using in this lab}
- Subject: **New invoice**
- Attachments: **newinvoice.jpg** (from the lab resource files)

40. Send the email and wait for the flow to run.
41. Wait for an approval request Adaptive Card to you in the Teams tab – Select “Yes” or “No” and then select “Submit” to approve or reject the invoice as desired.
42. In the Outlook tab, check for a confirmation email that matches the option you selected.
43. Repeat the test with the other test case (accept or reject).
44. Like previous labs, you can monitor the run status from the flow details page and run details page.

Check your knowledge

Lab 7

10 mins

1. When we want to send an approval to a user inside of Microsoft Teams, which is the appropriate action, from the Microsoft Teams connector, for us to choose?

- A. Post a choice of options as the Flow bot to a user
- B. Post an adaptive card wait for a response
- C. None of the above
- D. Either A or B

Answer: D. Post a choice of options as the Flow bot to a user or Post an adaptive card and wait for a response.

2. When we are entering 'ac_approve' in "choose a value field" in the Condition action, we need to make sure the capitalization is same as the options in the Adaptive Card action?

- A. True
- B. False

Answer: A True – If the capitalization is different, the condition will not be met.

3. After clicking Add an action under If No branch, we need to communicate to our email recipient that their invoice has not been approved. What action do we need to select _____?

- A. Reply to email
- B. Send an email notification
- C. Run a flow built with Power Automate Desktop
- D. Run a flow built with Selenium IDE

Answer: A. Reply to email. This will allow our email to look like a reply to the original email, giving it a personal touch.

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