

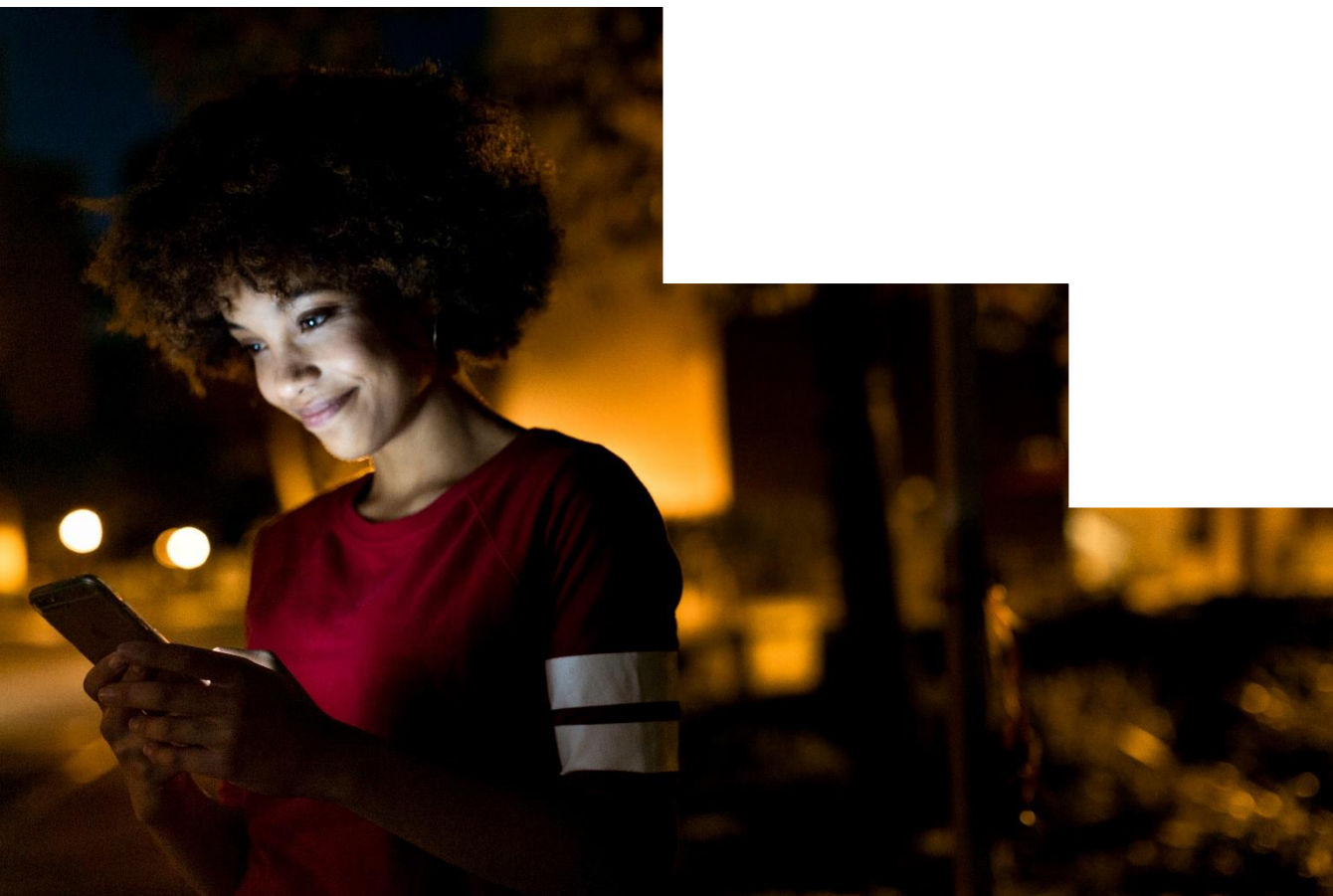


Robotic Process Automation in a Day

Lab 8 – Use Microsoft Teams to integrate approvals

30 mins

April 2021



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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:

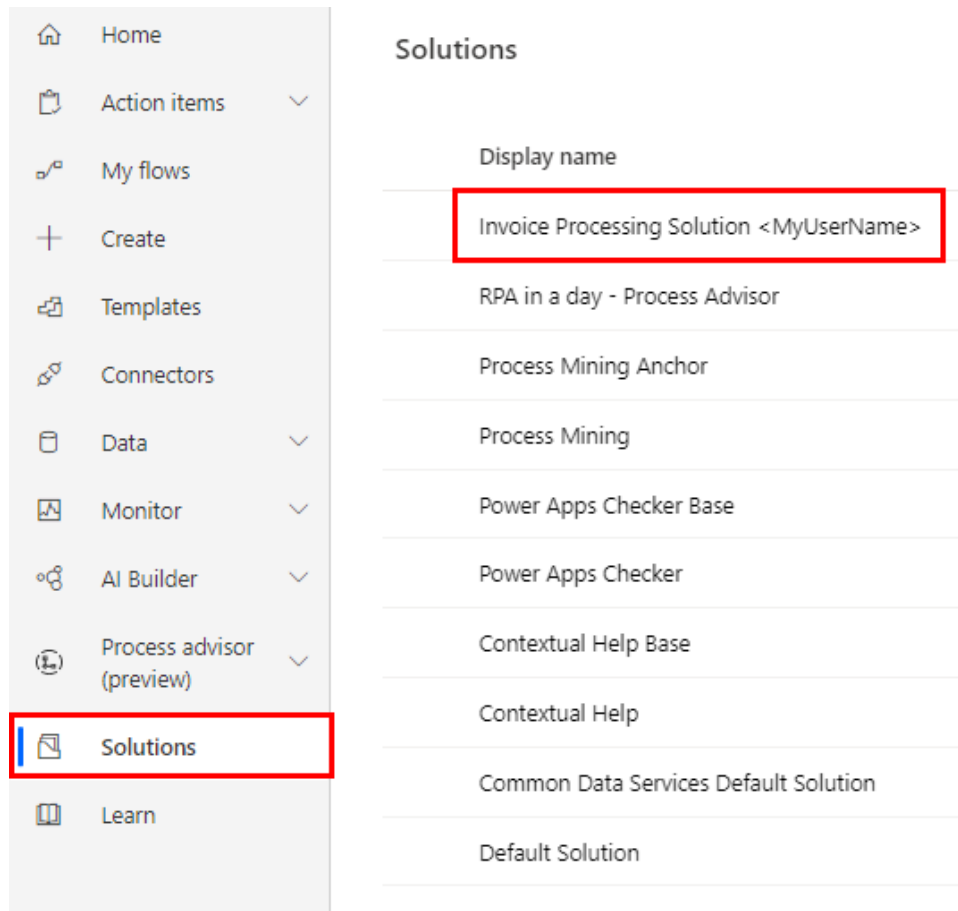
- Integrate a Microsoft Teams-based approval model and the associated conditional logic into the invoice processing Cloud flow
- Integrate the Desktop flow for entering the invoice information into the approval process
- Integrate Outlook-based approval/rejection notifications into the invoice process
- 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 3-7 – 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 flow.microsoft.com
2. Select **Solutions** from the navigation bar, then open **Invoice processing solution**.








3. Open **Enter invoice information flow** that you created in Lab 6.

Solutions > Invoice Processing Solution <MyUserName>

Display name ▾		Name
Common Data Service (current environment)	...	Common Data Service (current environment)
Desktop flows	...	Desktop flows
Desktop flows	...	Desktop flows
Enter invoice information flow 	...	Enter invoice information flow
Office 365 Outlook	...	Office 365 Outlook

4. Click **Edit**.

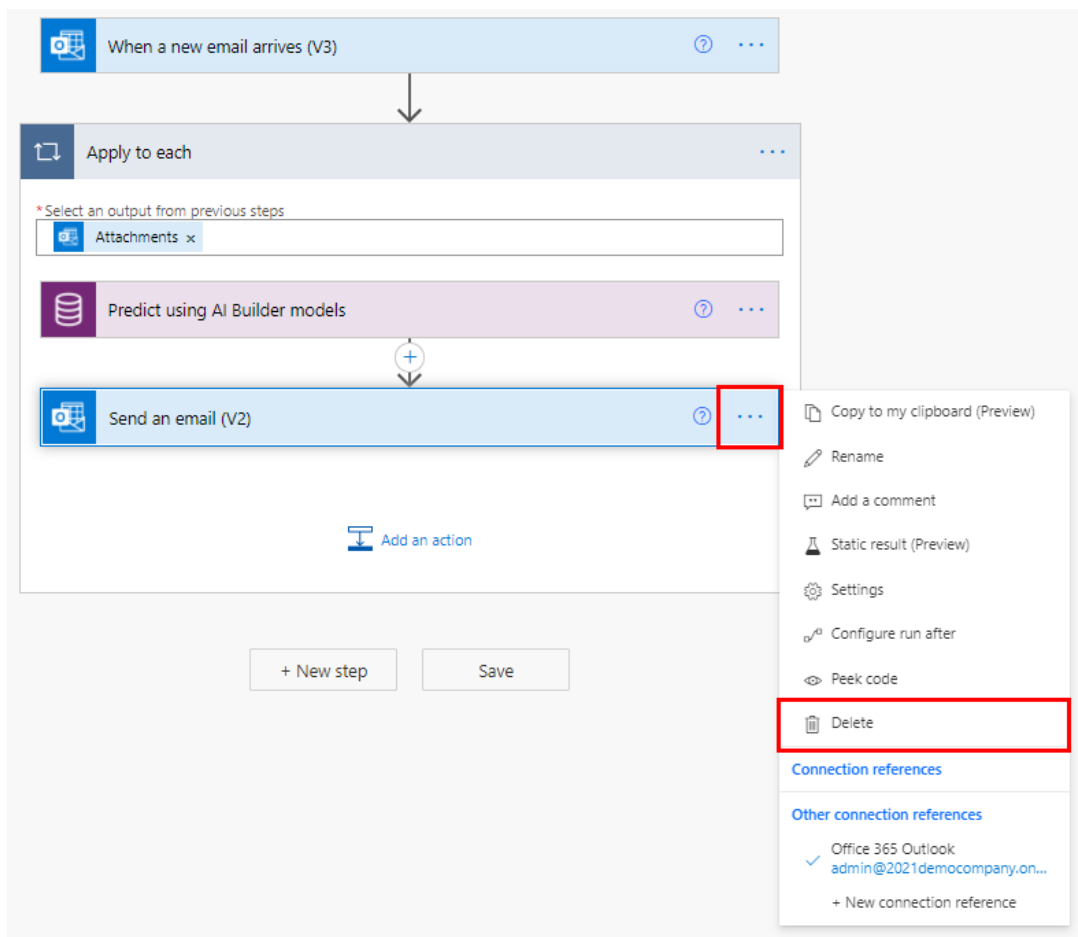
 **Edit**  Share  Save As  Delete  Send a copy

Flows > **Enter invoice information flow**

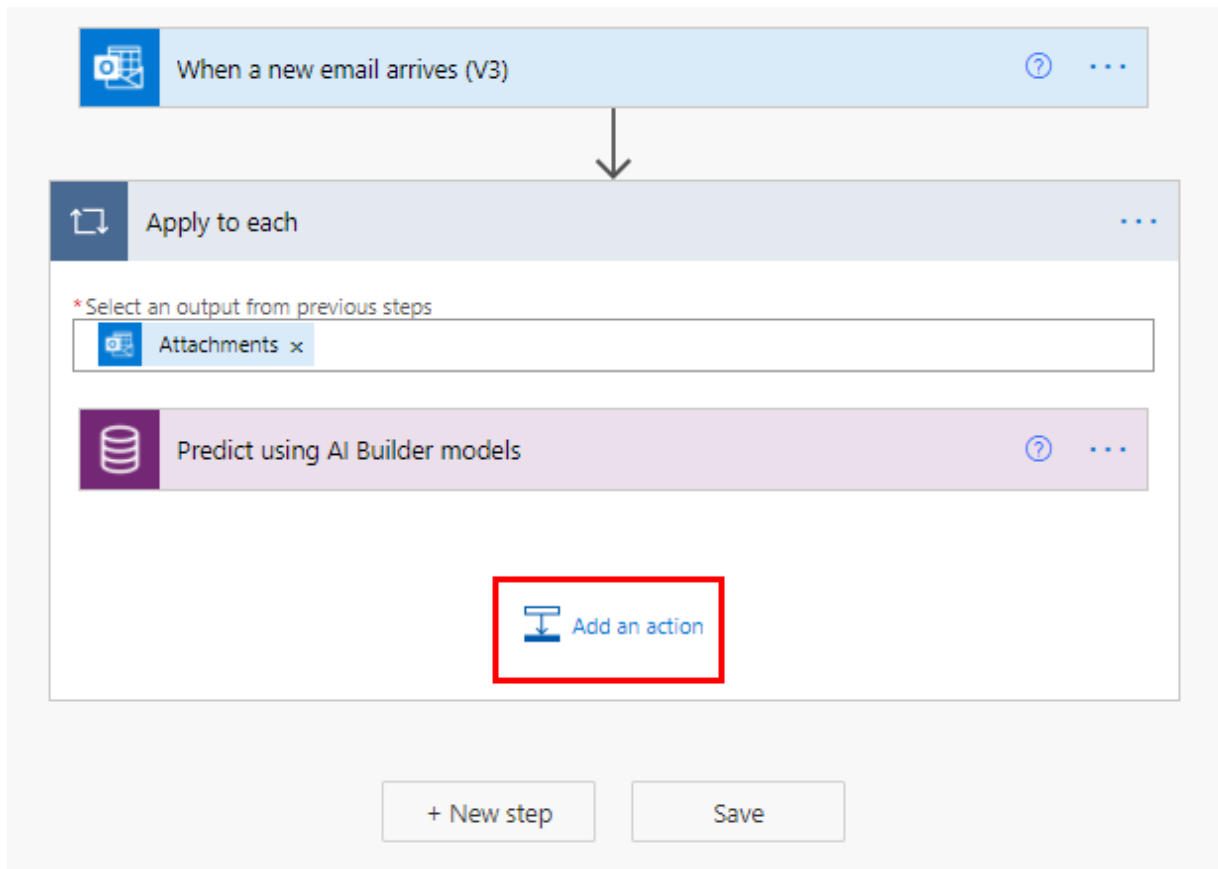
Details

Flow
Enter invoice information flow

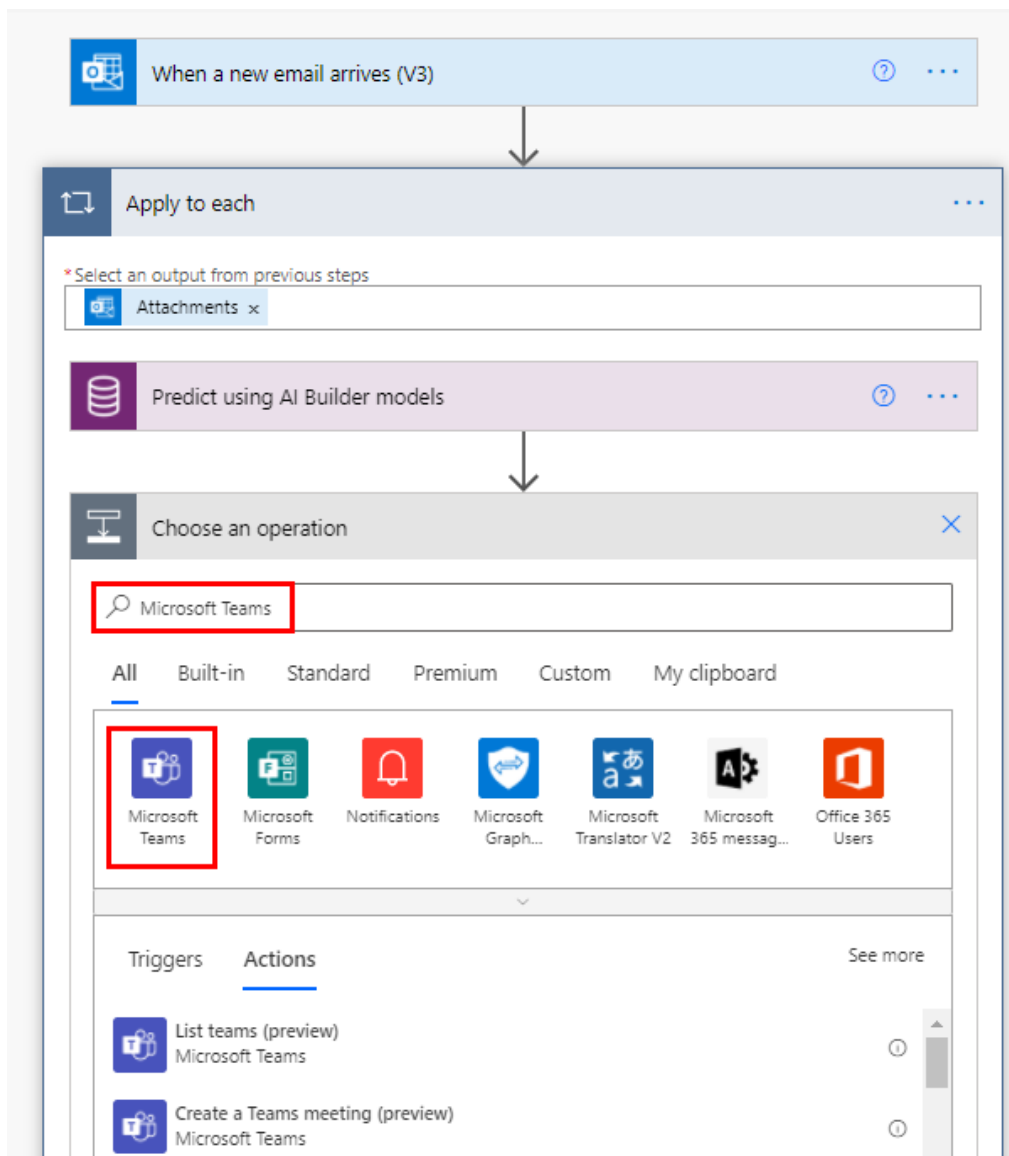
5. Expand **Apply to each** box the delete **Send an email (V2)** you created.



6. Click **Add an action**.



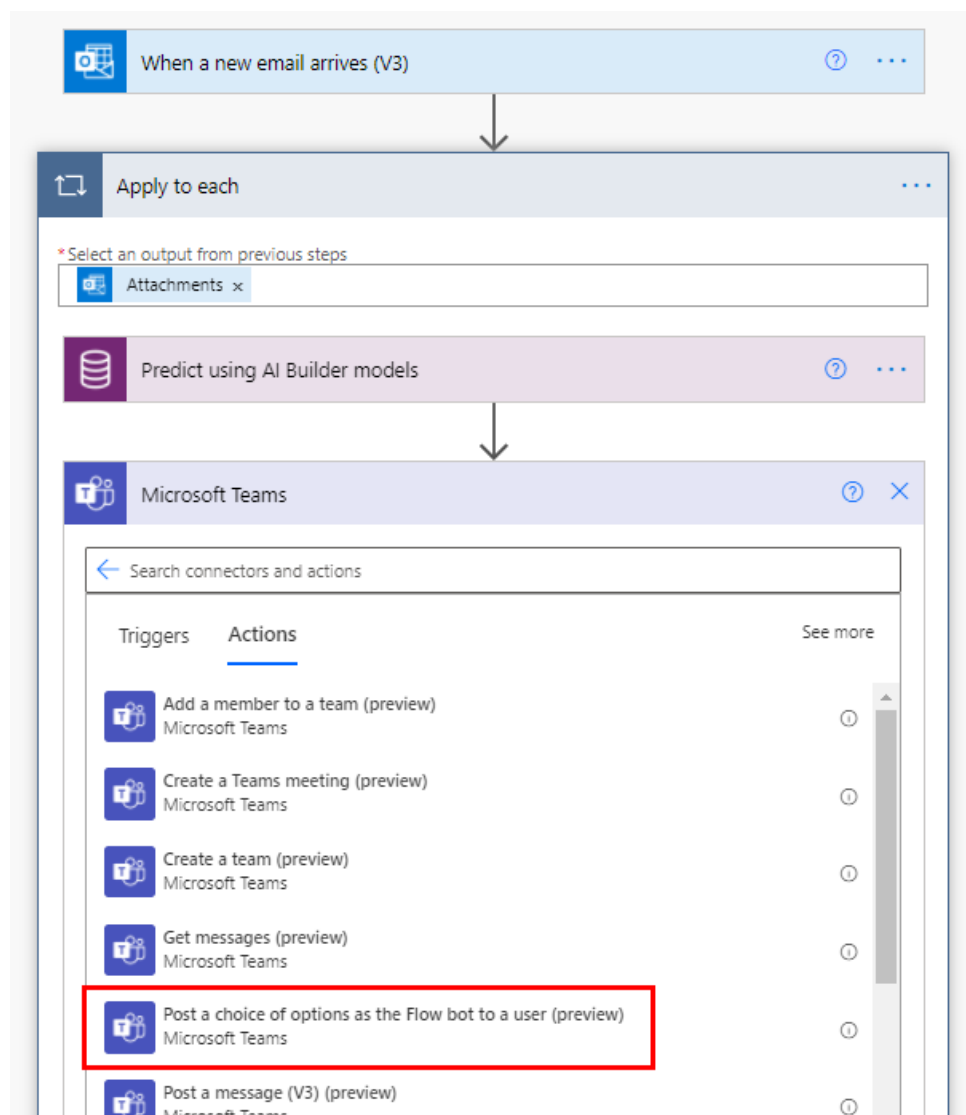
7. Search teams in the search bar, select **Microsoft Teams**.



Important: The next actions can be done following either of the two approaches. 1) Using either very simple method, that requires action "Post a choice of options as the Flow bot to a user" or 2) A richer and innovative approach that requires action "Post an Adaptive Card to Teams user and wait for a response", that utilizes Microsoft's technology called Adaptive Cards.

Note: If you'd like to learn the more advanced: Adaptive Cards approach instead of using the basic choice action, go to **Advanced learning chapter** at the end of this Lab document. Otherwise please continue here.

8. Select **Post a choice of options as the Flow bot to a user (preview)**.



9. Establish your connection to Teams.

10. Add 2 options: **Yes** and **No**.

The screenshot shows a dialog box titled "Post a choice of options as the Flow bot to a user (Preview)". Inside the dialog, there is a dashed box containing two "Options Item" sections. "Options Item - 1" has a text input field with the word "Yes". "Options Item - 2" has a text input field with the word "No". Below these items is a button labeled "+ Add new item". Outside the dashed box, there are three labeled input fields: "Recipient" with the placeholder "Add an email address", "Message" with an empty text area, and "Headline" with the placeholder "Add a subject". At the bottom left of the dialog is a link that says "Show advanced options" followed by a downward arrow.

11. Use following values:

- **Headline:** Please approve this invoice
- **Recipient:** Your email address (User ID)
- **Message:** We got a new invoice with amount of **Total value** (from dynamic content for **Predict** action), for the date of **Date value** (from dynamic content for action **Predict**). Contact person is **Contact value** (from dynamic content for action **Predict**). Would you like to approve this?

Post a choice of options as the Flow bot to a user (Preview)

Options Item - 1
Yes

Options Item - 2
No

+ Add new item

Recipient
me@mycompany.com

Message
We got a new invoice with amount of **Total value** × , for the date of **Date value** × . Contact person is **Contact value** × . Would you like to approve this?

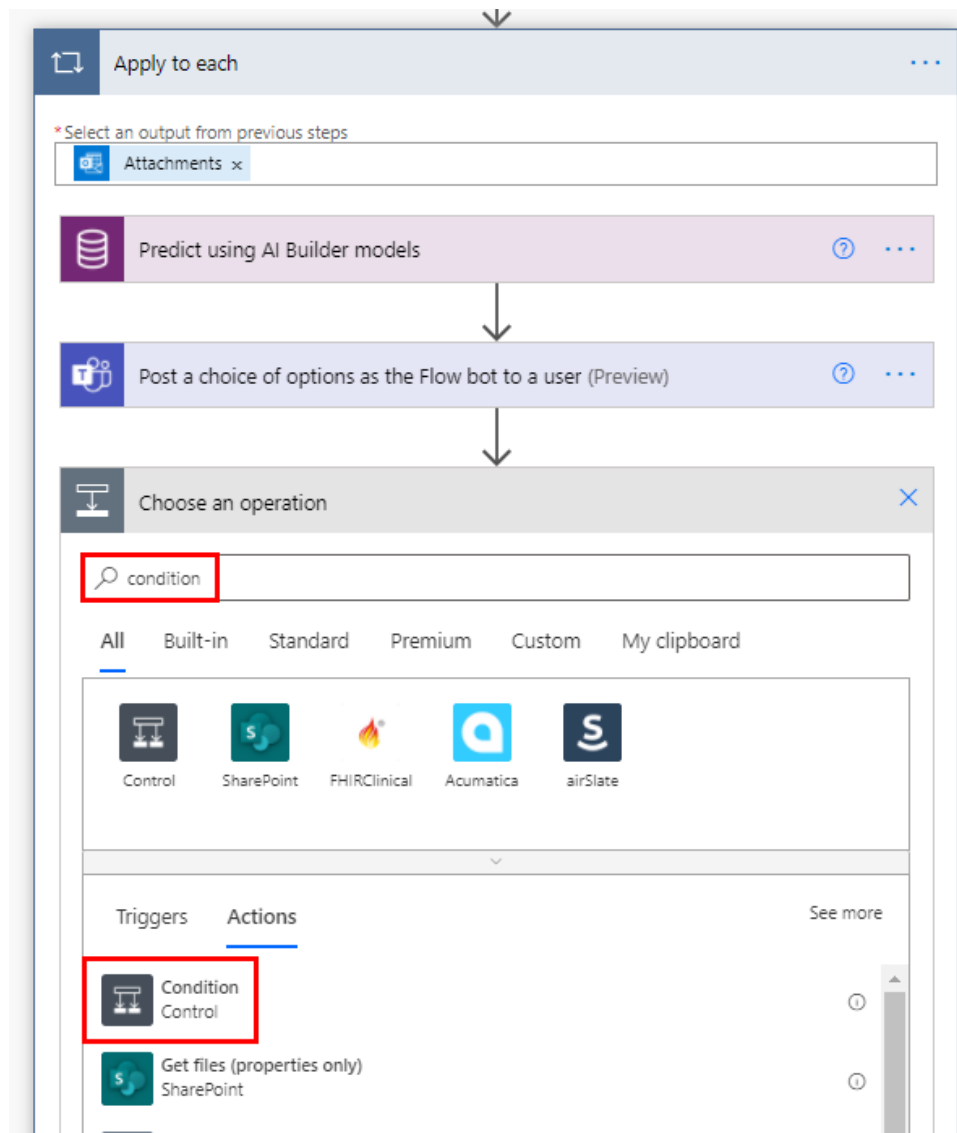
Headline
Please approve this invoice

Show advanced options

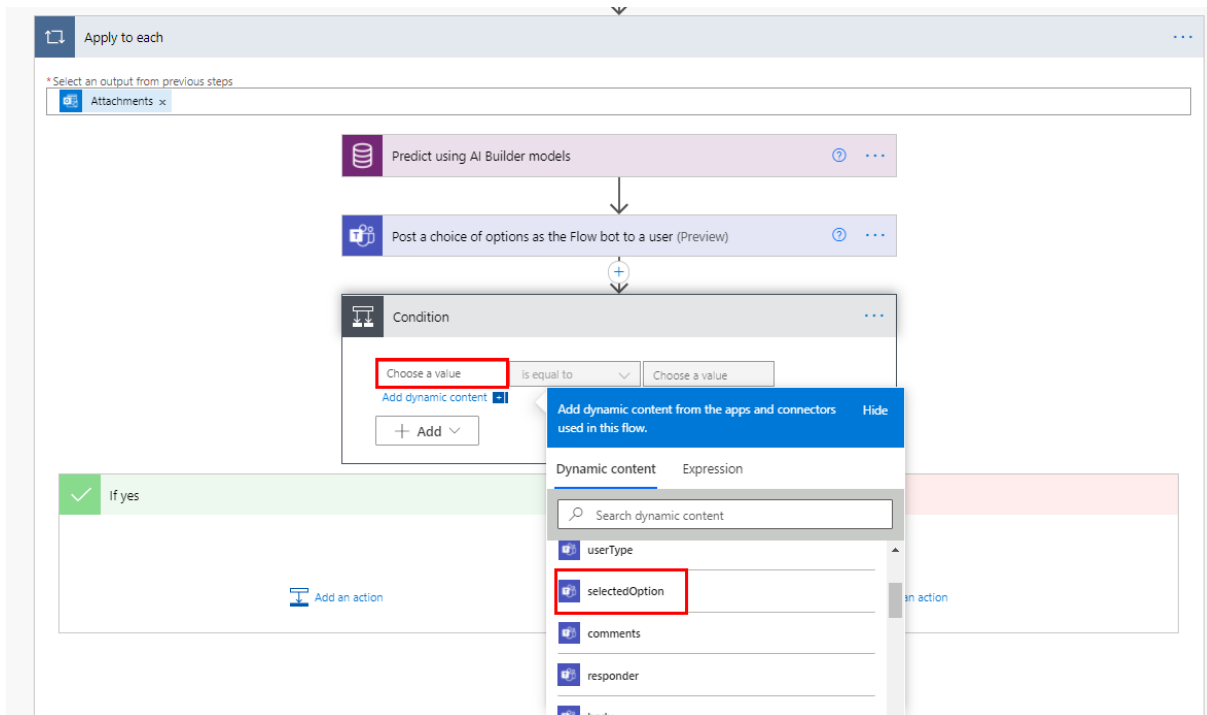
12. Click **Add an action**.

The screenshot displays the Microsoft Power Automate interface. At the top, a dropdown menu shows 'Attachments' selected. Below it, the first action is 'Predict using AI Builder models'. An arrow points down to the second action, 'Post a choice of options as the Flow bot to a user (Preview)'. This action is expanded, revealing a list of options: 'Options Item - 1' with the value 'Yes', and 'Options Item - 2' with the value 'No'. Below the options is a button labeled '+ Add new item'. The 'Recipient' field is set to 'me@mycompany.com'. The 'Message' field contains a text template: 'We got a new invoice with amount of [Total value] , for the date of [Date value] . Contact person is [Contact value] . Would you like to approve this?'. The 'Headline' field is set to 'Please approve this invoice'. At the bottom of the interface, a red box highlights the 'Add an action' button.

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

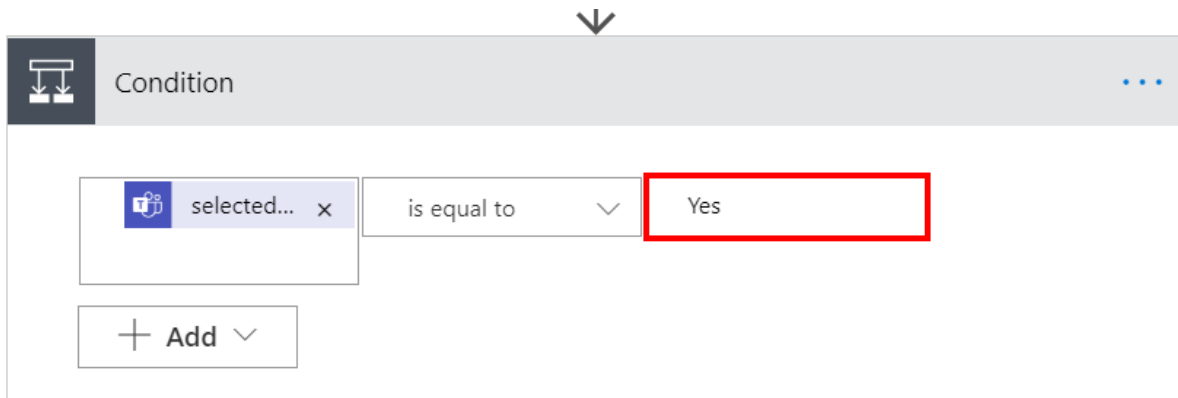


14. Select **selectedOption** (from dynamic content for action **Post a choice of options as the Flow bot to a user**) in the **Choose a value** field.

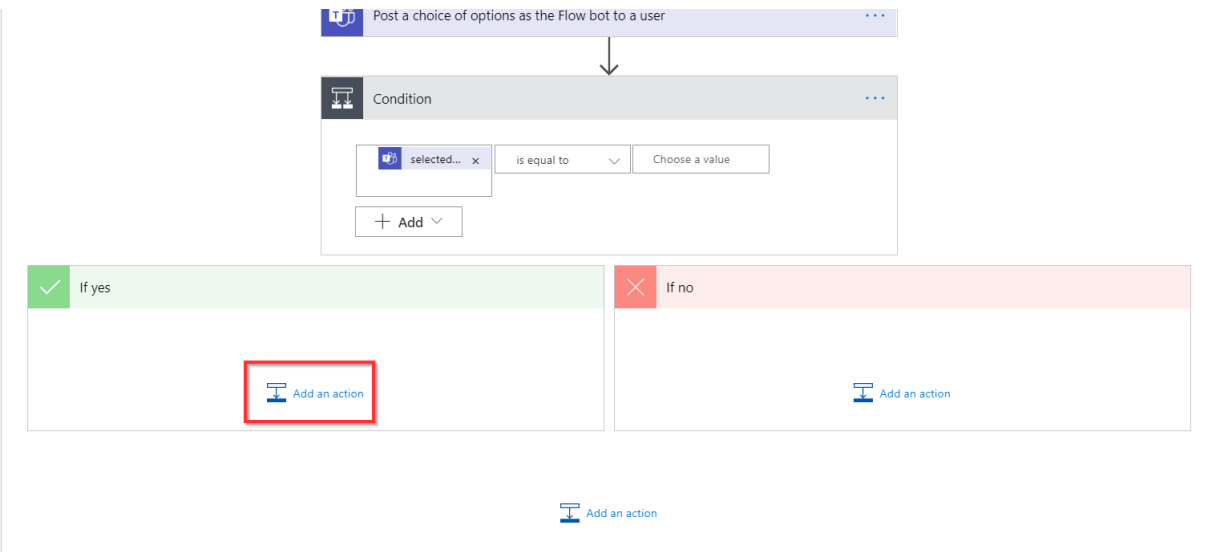


15. Enter **Yes** in choose a value field.

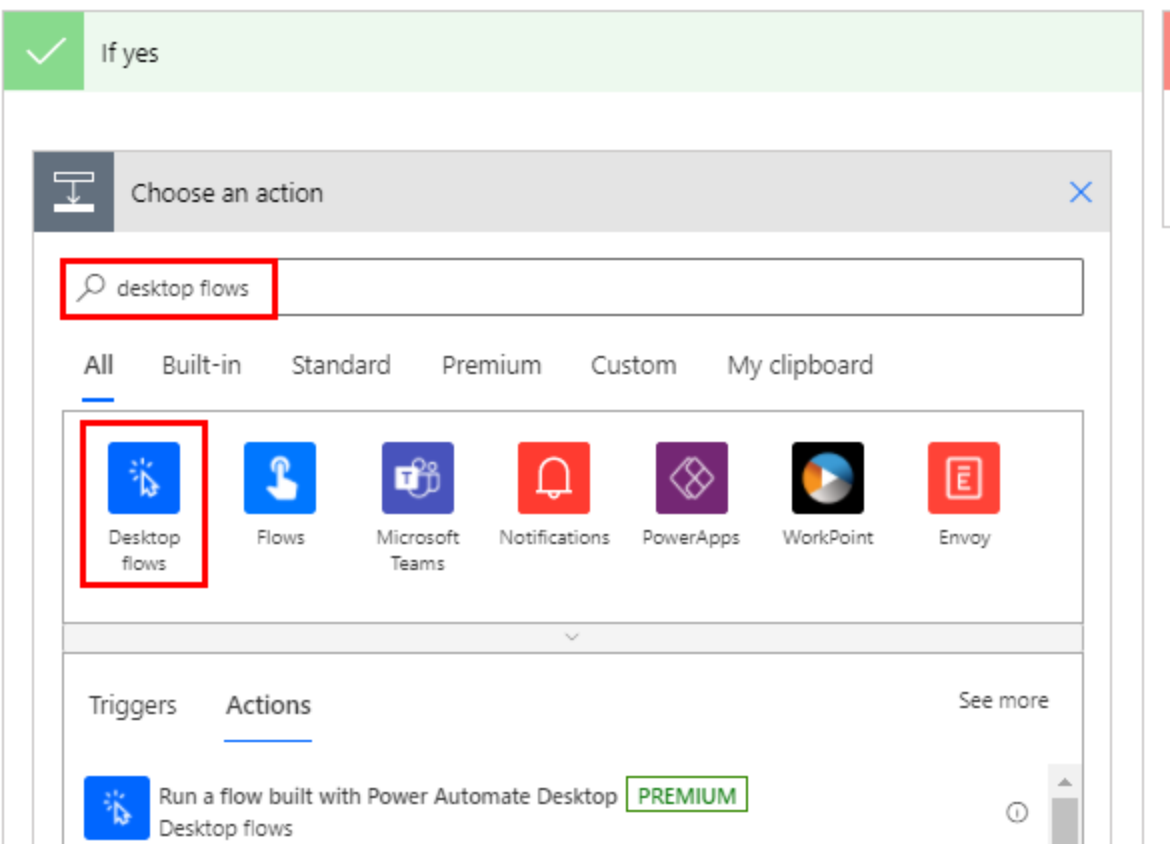
Note: Case sensitive. Make sure the capitalization is same as step 10.



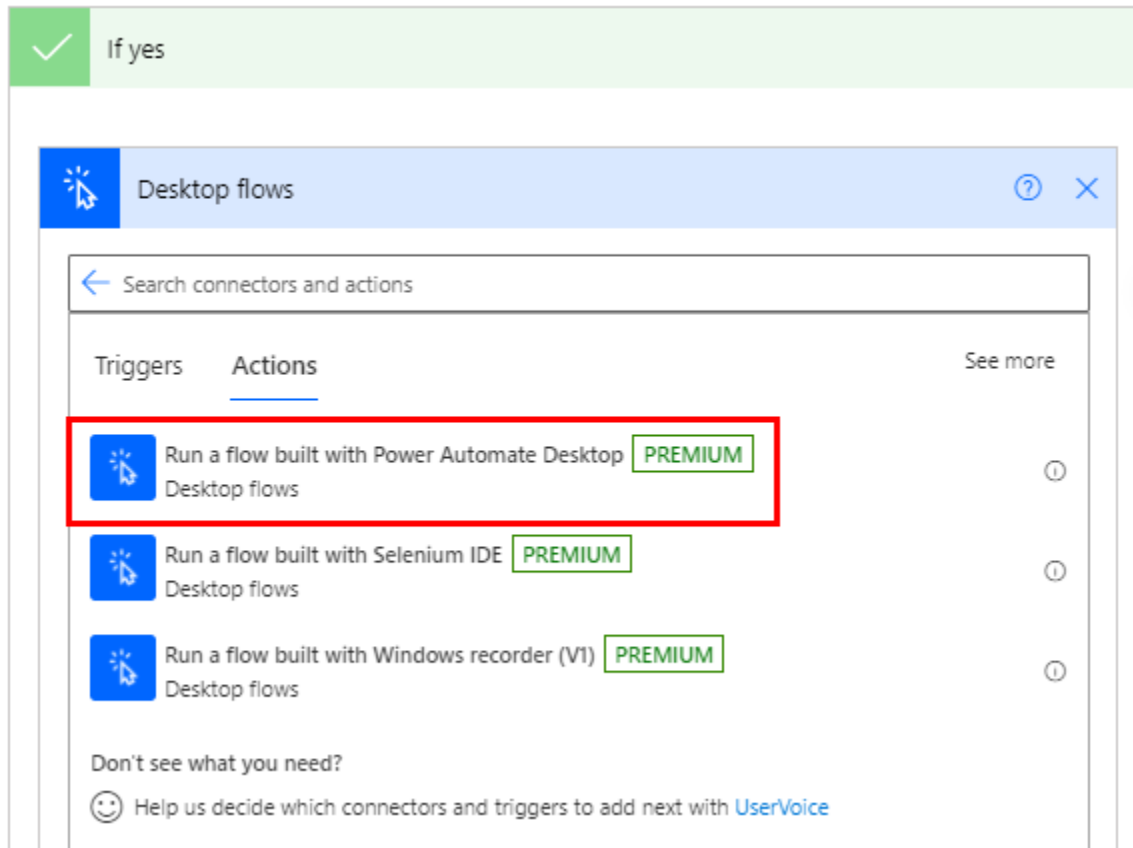
16. Click **Add an action** under If Yes branch.



17. Select **Desktop flows**.



18. Select Run a flow built with Power Automate Desktop.



19. Select Enter an invoice flow.

✓ If yes

⚙️ Run a flow built with Power Automate Desktop

* Desktop flow

Enter an invoice

Edit

* Run Mode

Choose between running while signed in (attended) or in the background

Amount

Amount

Contact

Contact email

Account name

Account name

Show advanced options

⬇️ Add an action

20. Use these values:

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


Amount: Total value (from dynamic content for action **Predict**)

Contact: Contact value (from dynamic content for action **Predict**)



Account name: Bill to value (from dynamic content for action **Predict**)

✓


If yes



Run a flow built with Power Automate Desktop


 

* Desktop flow



Enter an invoice 

Edit



* Run Mode

Attended - Runs when you're signed in 



Amount


 Total value 


Contact

 Contact value 

Account name

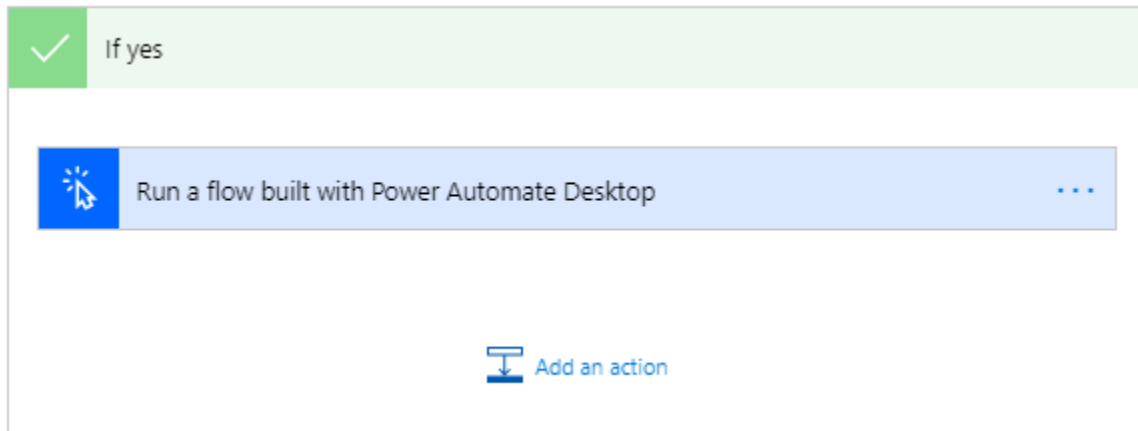
 Bill to value 

Show advanced options 

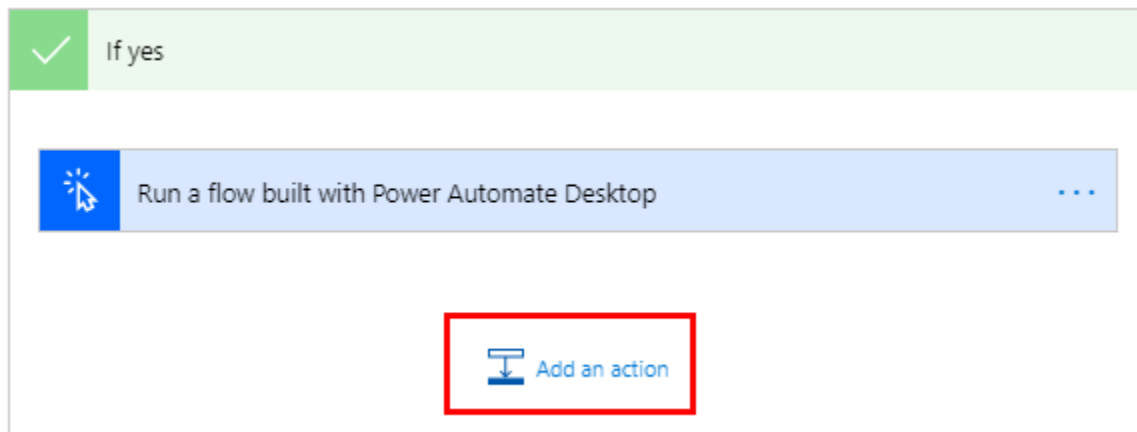


Add an action

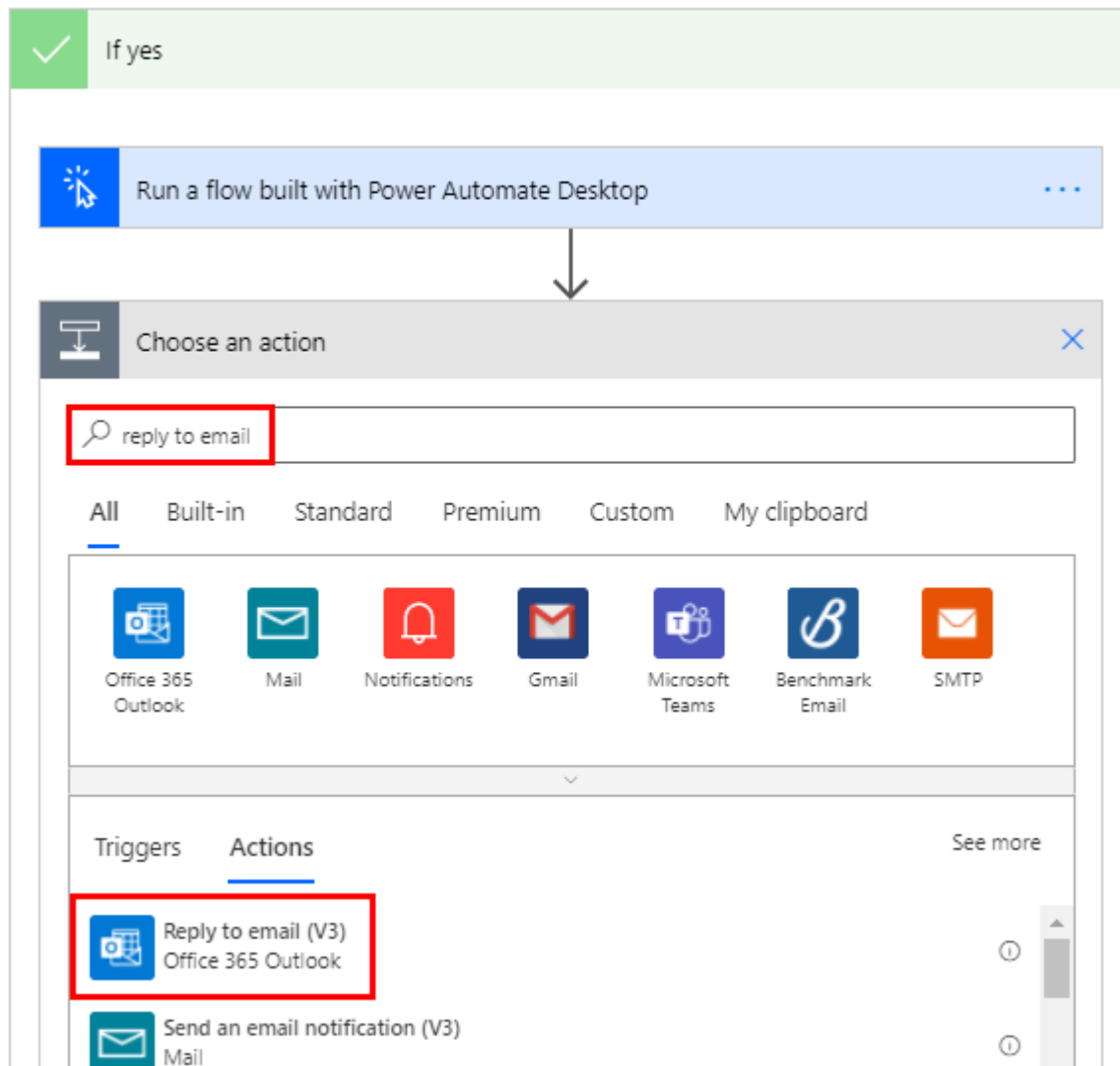
21. You can click the Desktop flow action title to collapse the action view



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



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



24. 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 for action **Predict**) is approved.

✓ If yes

Run a flow built with Power Automate Desktop

Reply to email (V3)

* Message Id: Message Id

Body: Your invoice of amount Total value 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

25. Click Show advanced options.

The screenshot shows a web-based form titled "Reply to email (V3)". The form is organized into several sections:

- Message Id:** A text input field with a placeholder "Message Id" and a close button (x).
- Body:** A rich text editor with a toolbar containing options for font size (12), bold (B), italic (I), underline (U), link, unlink, bulleted list, numbered list, indent, outdent, and source code. The body text reads: "Your invoice of amount

26. Enter Your invoice is approved in Subject column.

Reply to email (V3)

* Message Id:

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

Attachments Content - 1

Add new item

Original Mailbox Address:

To:

CC:

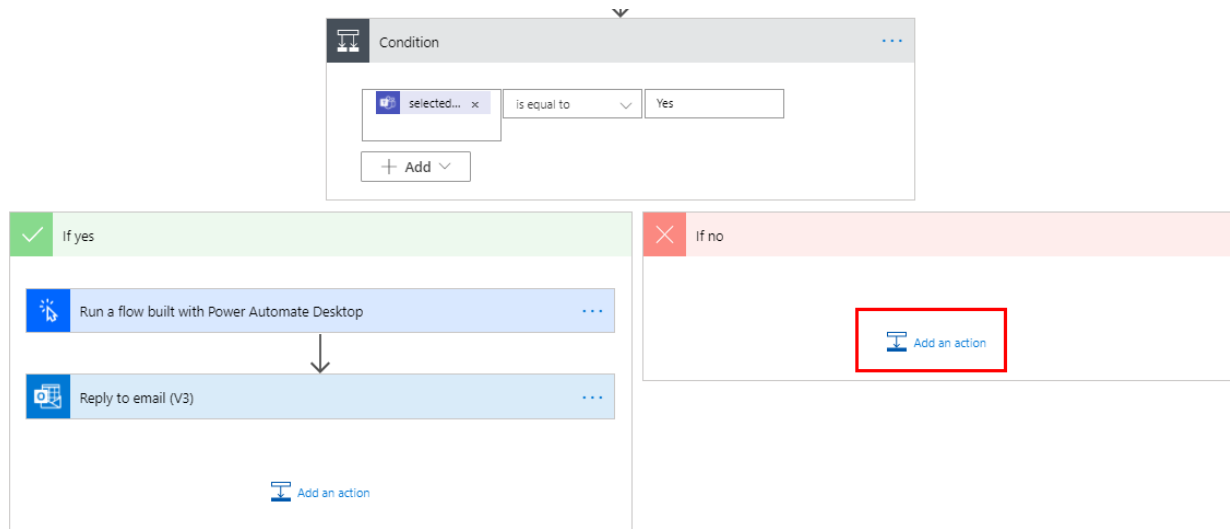
BCC:

Subject:

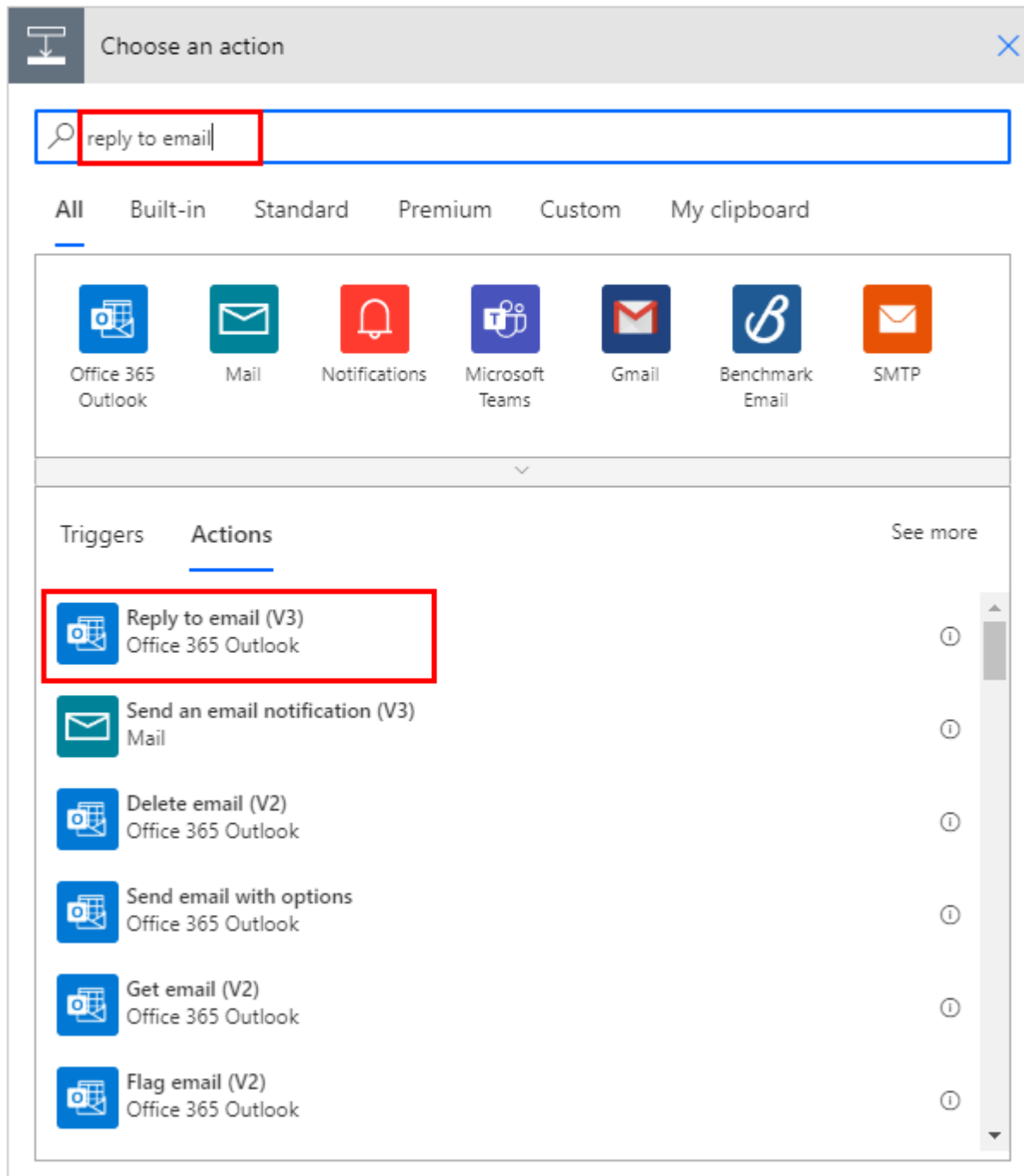
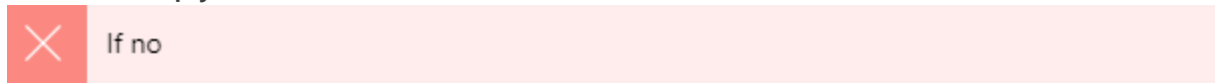
Importance:

[Hide advanced options](#)

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



Select Reply to email action.



28. Enter the values as the screenshot below:

- **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 for action **Predict**) is rejected.

✕ If no

Reply to email (V3) 2

*Message Id

Message Id ✕

Body

Font 12 **B** *I* U [Icons]
 Your invoice of amount **Total value** ✕ 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.

Show advanced options ✓

29. Click Show advanced options.

✕ If no

Reply to email (v3) 2

* Message Id

Message Id ✕

Body

Font 12 **B** *I* U

Your invoice of amount Total value ✕ 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.

Show advanced options ✓

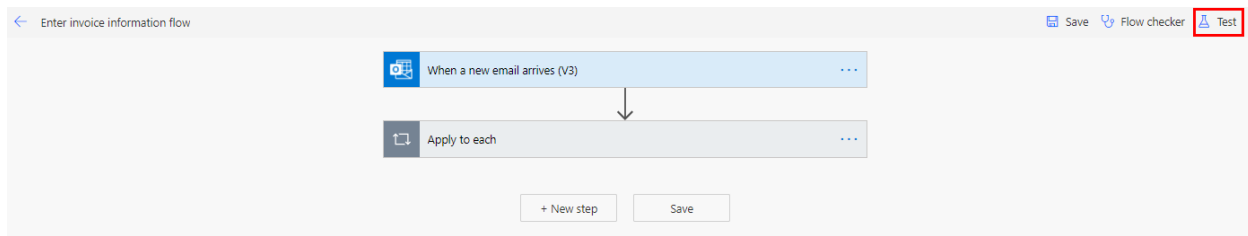
30. Enter **Your invoice is rejected** in **Subject** column.

The screenshot shows the 'Reply to email (V3) 2' form. The 'Subject' field is highlighted with a red border and contains the text 'Your invoice is rejected'. Other fields include 'Message Id', 'Body' (with a rich text editor), 'Reply All' (set to 'True to reply to all recipients. (default: False)'), 'Attachments Name - 1' (with an 'Attachment name' field), 'Attachments Content - 1' (with an 'Attachment content' field), 'Original Mailbox Address' (with a placeholder 'Address of the shared mailbox to reply from.'), 'To' (with 'Example: recipient1@domain.com; recipient2@domain.com'), 'CC' (with 'Example: recipient1@domain.com; recipient2@domain.com'), 'BCC' (with 'Example: recipient1@domain.com; recipient2@domain.com'), and 'Importance' (with 'Pick an importance. (default: Low)'). A 'Hide advanced options' link is at the bottom left.

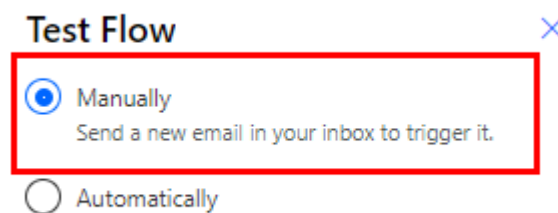
31. Click **Save**.

The screenshot shows the Power Automate flow editor. The flow is named 'Enter invoice information flow'. It starts with a trigger 'When a new email arrives (V3)' connected to a loop 'Apply to each'. The 'Save' button is highlighted with a red border. Other buttons include 'Flow checker' and 'Test'. At the bottom, there are buttons for '+ New step' and 'Save'.

32. Click **Test**.



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



34. In a separate tab, open the Teams app (open it in the browser, not the app). The web version of Microsoft Teams is available at: <https://teams.microsoft.com/>

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

36. Compose a new email with the following settings:

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

37. Send the email and wait for the flow to run.

38. 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.

39. In the Outlook tab, check for a confirmation email that matches the option you selected.

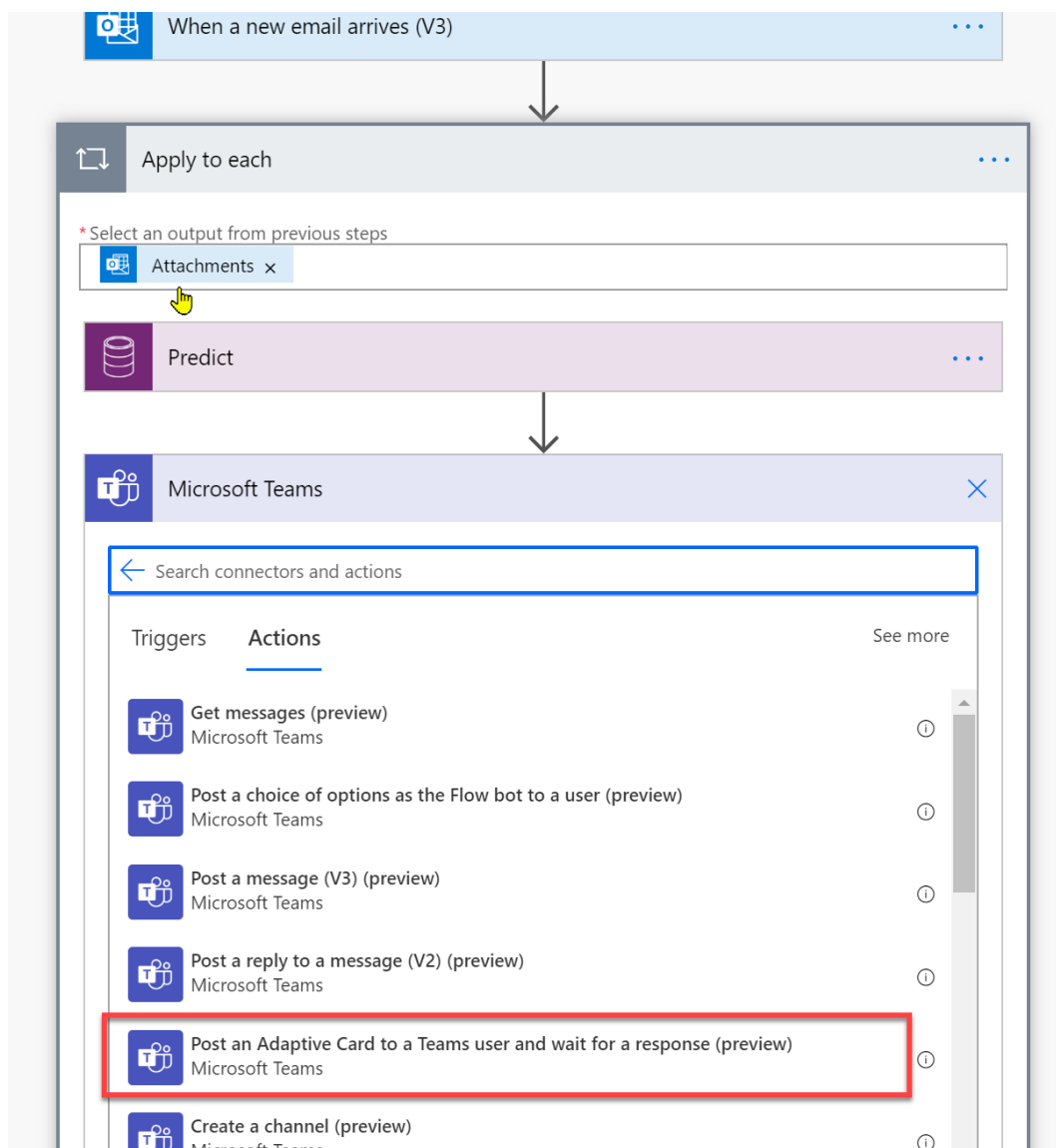
40. Repeat the test with the other test case (accept or reject).

Advanced learning

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, we will provide you with JSON that can be used in our Adaptive Card action. If you are interested in designing your own Adaptive Card, please visit the designer experience at: <https://adaptivecards.io/designer/>.

A. Select **Post an Adaptive Card to a Teams user and wait for a response**.



- B. Establish your connection to Microsoft Teams.
- C. Use following values:
- **Recipient:** Your email address (User ID)
 - **Message:** Input the JSON code from the file: **AdaptiveCard-lab8.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 **Predict**)
 - b. #CONTACT# with **Contact value** (from dynamic content for action **Predict**)
 - c. #DATE# with **Date value** (from dynamic content for action **Predict**)
 - d. #TOTAL# with **Total value** (from dynamic content for action **Predict**)

* 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": "a" "#BILL TO#" }, { "title": "Contact", "value":
"b" "#CONTACT#" }, { "title": "Issue date", "value": "c" "#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 decision
- Should update card: Yes

↓

Post an Adaptive Card to a Teams user and wait for a response ...

* Recipient

* Message

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

Thank you for your decision.

Should update card

Yes ✓

[Show advanced options](#) ✓

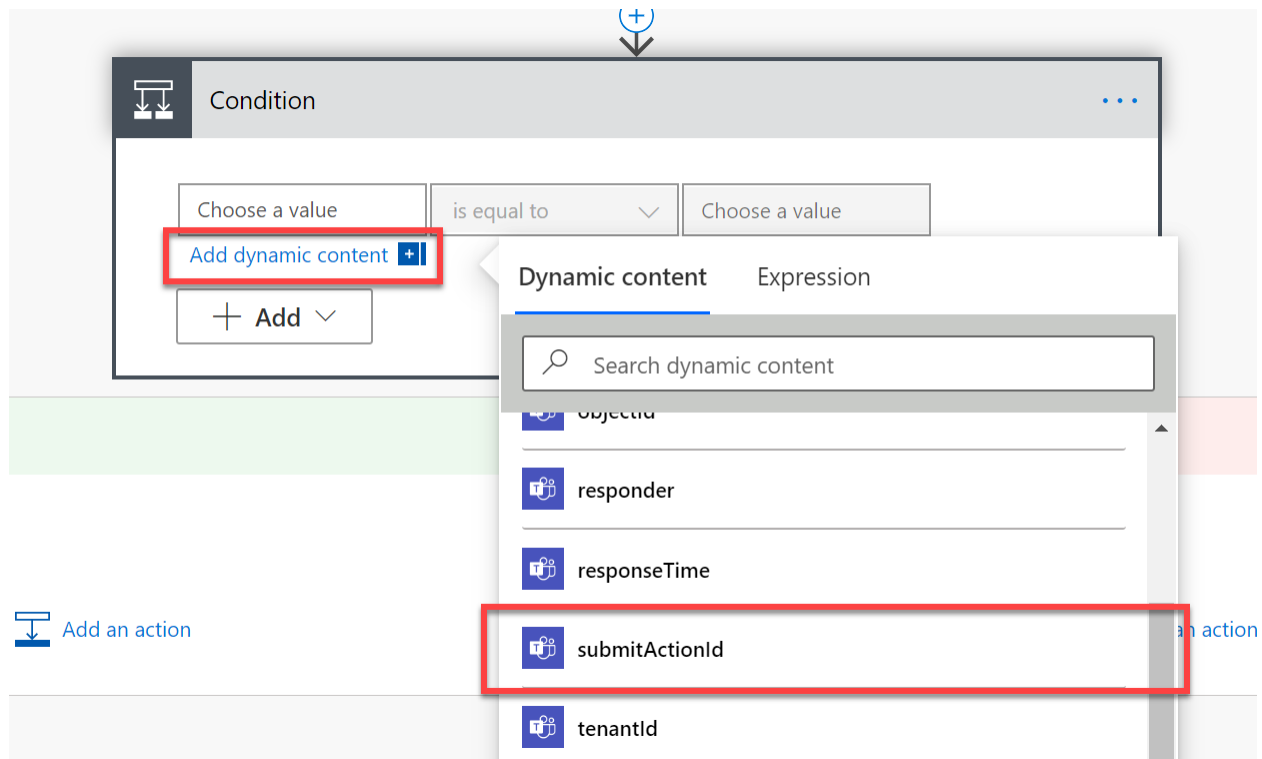
D. Click **Add an action**.

The screenshot shows the 'Add an action' dialog box in Power Automate. At the top, there is a code editor with JSON. Below it, there are two input fields: 'Update message' with the text 'Thank you for your decision.' and 'Should update card' with a dropdown menu set to 'Yes'. A link 'Show advanced options' with a downward arrow is below these fields. At the bottom, there is a red-bordered button with a downward arrow icon and the text 'Add an action'.

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

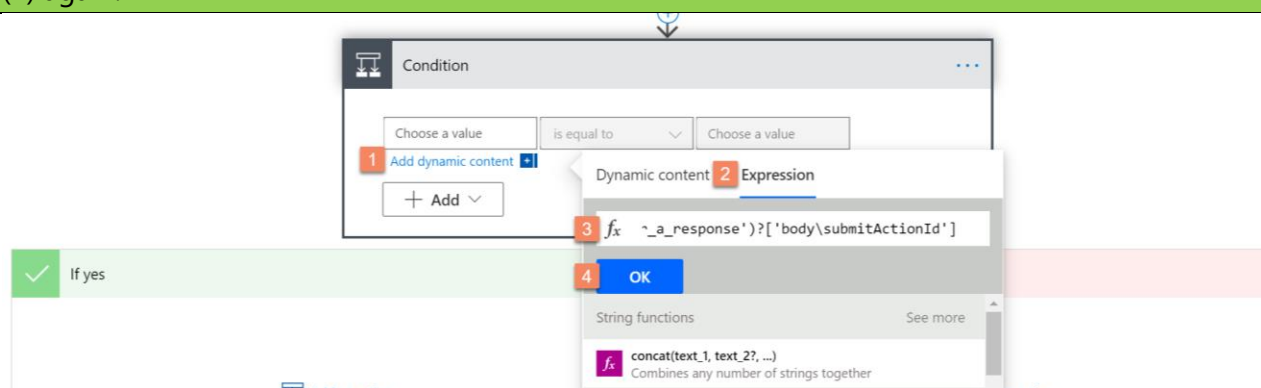
The screenshot shows the 'Choose an action' dialog box in Power Automate. At the top, there is a search bar with the text 'condition' entered. Below the search bar, there are tabs for 'All', 'Built-in', 'Standard', 'Premium', 'Custom', and 'My clipboard'. Under the 'All' tab, there are four icons: 'Control', 'SharePoint', 'Acumatica', and 'airSlate'. Below these icons, there is a section for 'Triggers' and 'Actions'. The 'Actions' tab is selected, and the 'Condition' action is highlighted with a red border. The 'Condition' action is labeled 'Condition' and 'Control'. There is a 'See more' link to the right of the 'Actions' tab.

- F. Click on **Add dynamic content** and select **submitActionId** from **Post an Adaptive Card to a Teams user and wait for a response** outcomes:



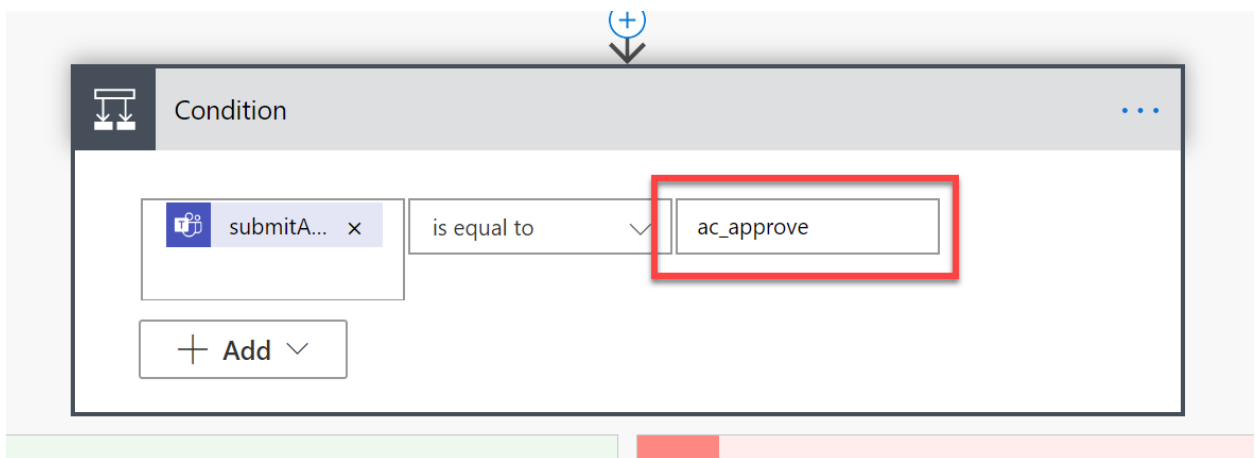
Tip 1: If no outcomes for the Teams action can be found, then click on "Add dynamic content" link (1) and then "Expression" (2). **Insert:**
`body('Post_an_Adaptive_Card_to_a_Teams_user_and_wait_for_a_response')['submitActionId']`
in the field (3) and click "OK" (4).

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



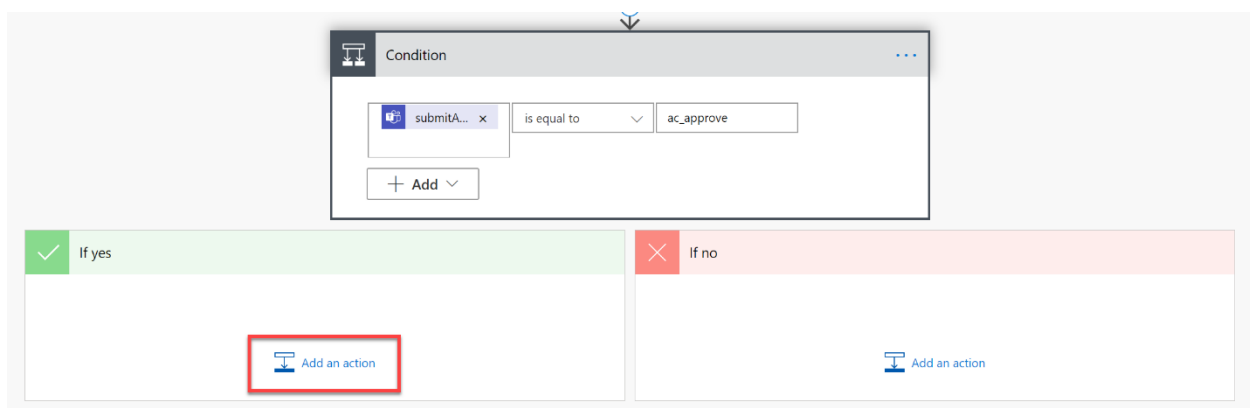
G. Enter **ac_approve** in choose a value field.

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.

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



Important: Now return to step 16 above.

Check your knowledge

Lab 8

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 to Teams user and 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 to Teams user and wait for a response

2. When we are entering "Yes" in "choose a value field" in the Condition action, we need to make sure the capitalization is same as the options in the Teams action

- A. True
- B. False

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