



Microsoft Power Virtual Agents in a Day

Lab 06: Build Power Automate Flows for your Chatbot
Hands-on Lab Step-by-Step

September 2020



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Power Automate

This lab is subject to the Terms of Use on page 29 of this document.

Goals for this lab

 <p>What you'll learn:</p> <ul style="list-style-type: none">• Create a Power Automate flow from the chatbot authoring canvas• Create a topic that can send information obtained by the chatbot to a user in Microsoft Teams	 <p>The time to complete this lab is [40] minutes.</p>
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Scenario

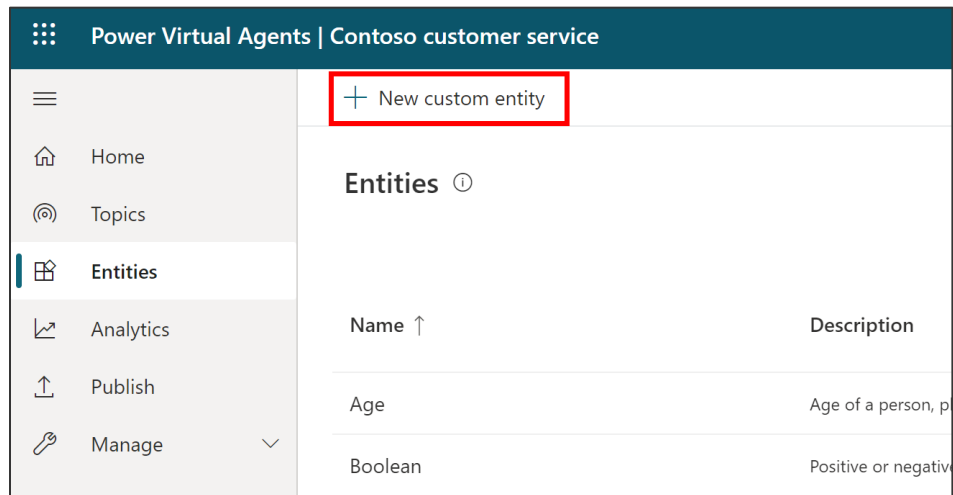
In this scenario, you will be creating a new topic for the chatbot for handling customer issues with their devices that they have purchased from the store. In this topic, the chatbot will collect information such as the customer's name, email address, what device they have, and a description of the issue. A flow will then send these details as a message in Microsoft Teams to the user who handles these issues.

Before we start...

Navigate to <https://powerva.microsoft.com/> and sign in with your credentials.

Task 1: Create a new entity

1. Click **Entities** in the left navigation pane.
2. You will create an entity for Device Manufacturers. To do this, click on **New custom entity**.



3. Enter **Device Manufacturer** as the **Entity Name**. Ensure Smart matching is turned on. Add each of the following as an item in the entity:

Acer
Asus
Dell
HP
Microsoft
Lenovo
Samsung
Sony
Toshiba

Device Manufacturer

Name *

Device Manufacturer

Description

Description (optional)

Method

List

The bot will try to match an item on the list based on what the customer says.

Modified by

2 minutes ago

Smart matching

☒ on

The Smart matching option enables the bot's understanding of natural language. This can help match misspellings, grammar variations, and words with similar meanings.

If the bot isn't matching enough related words, enhance the bot's understanding further by adding synonyms to your list items.

[Learn more about entities](#)

List items

Enter item Add

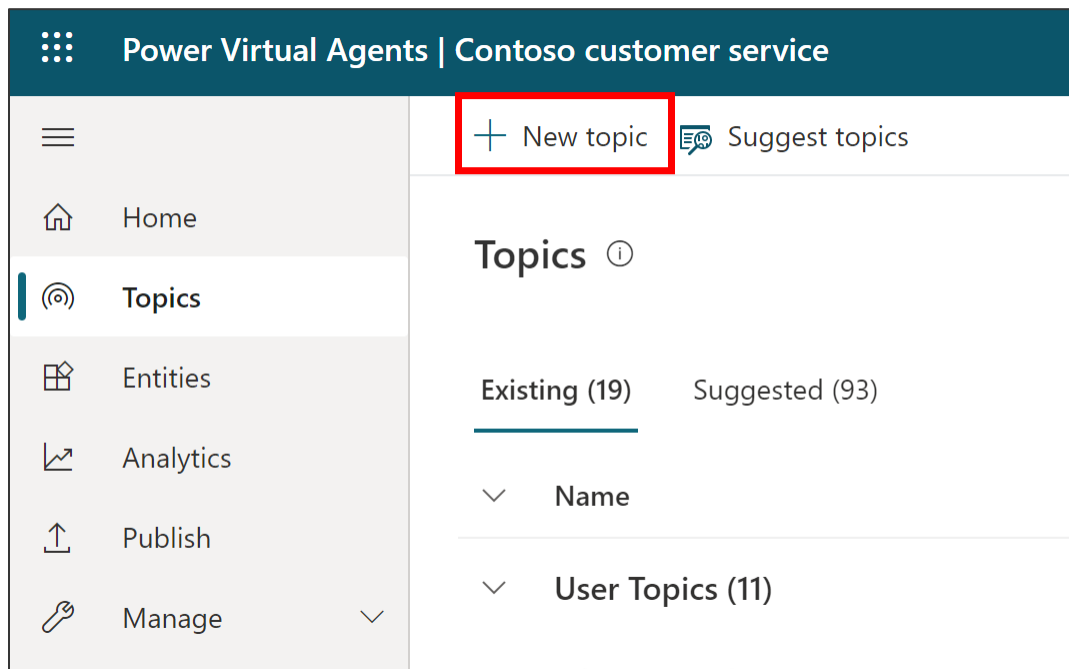
Item	Synonyms
Acer	+ Synonyms
Asus	+ Synonyms
Dell	+ Synonyms
HP	+ Synonyms
Microsoft	+ Synonyms
Lenovo	+ Synonyms
Samsung	+ Synonyms
Sony	+ Synonyms
Toshiba	+ Synonyms

Save Close

4. Save the entity

Task 2: Create a new topic

1. Click **Topics** in the left navigation pane and click on **New topic**.



2. Enter **Device Complaints** as the topic name
3. Add **I have a problem with my device** as a trigger phrase
4. At the top right, click **Save topic**.

Task 3: Author the conversation

1. Click on **Go to authoring canvas**

Device Complaints

Save topic Delete

Setup Analytics

Name *

Device Complaints

Description

Enter a description

Trigger phrases (1) ⓘ

How might your customers ask about this topic? Try to start with 5-10 diverse phrases.

Enter a trigger phrase Add

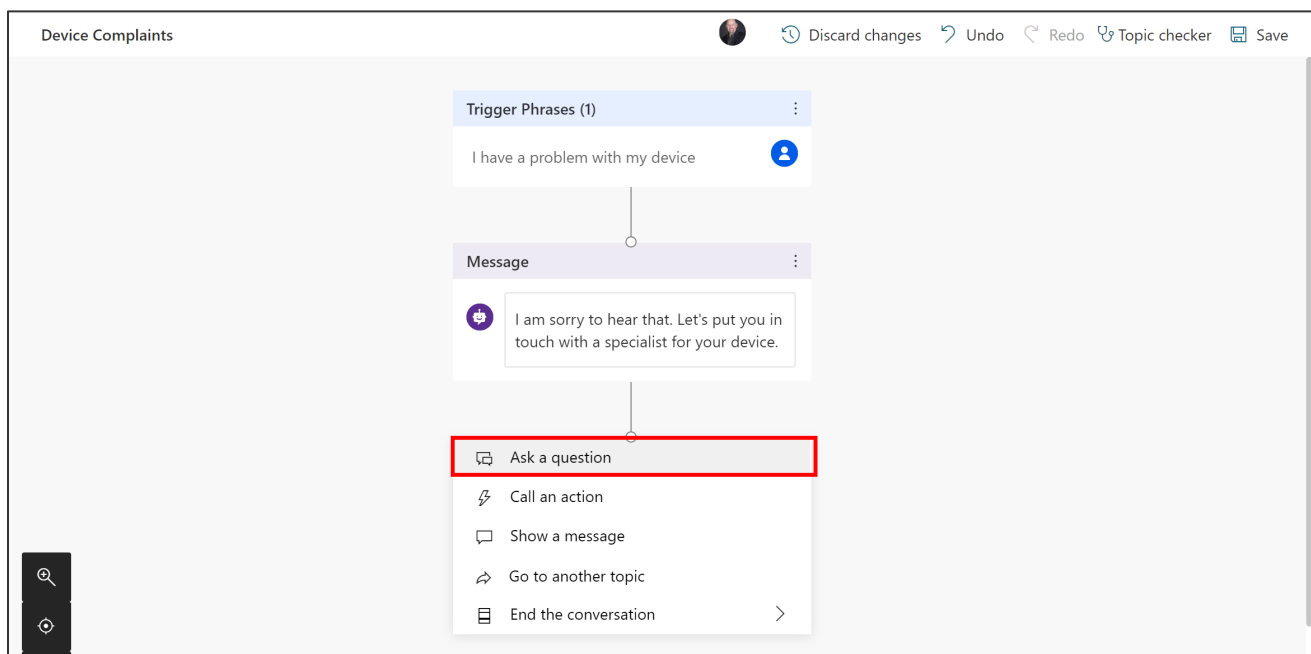
I have a problem with my device

Status

-

Go to authoring canvas

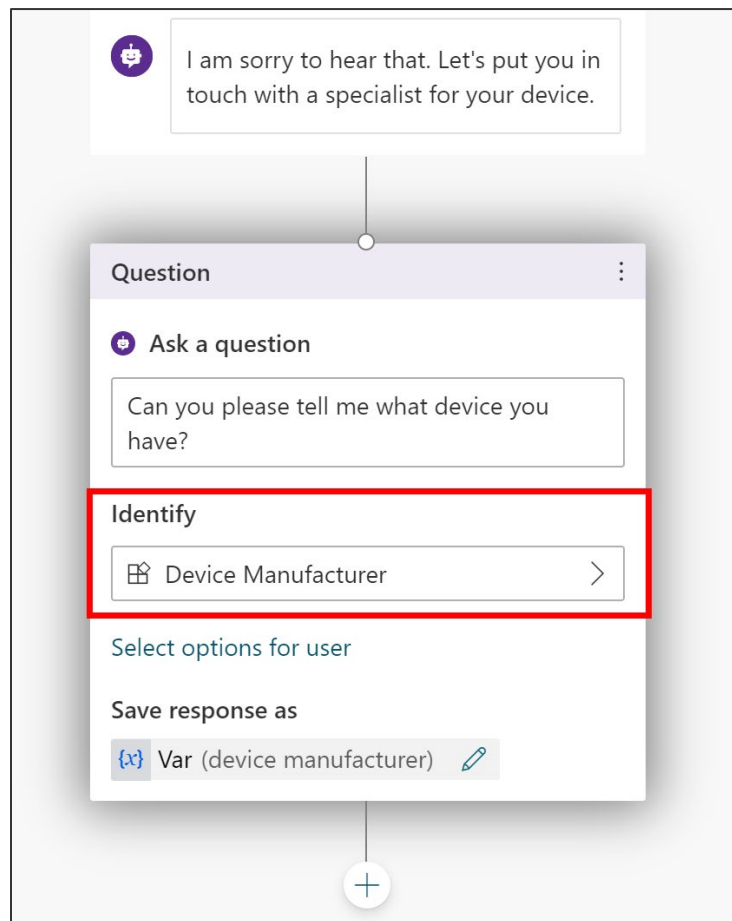
2. In the first **Message node**, copy and paste the following text:
I am sorry to hear that. Let's put you in touch with a specialist for your device.
3. Under the **Message node**, click the **Add node** button and select **Ask a question**.



4. In the **Ask a question** area of the **Question node**, copy and paste the following text:
Can you please tell me what device you have?

5. In the **Identify** area of the same Question node, select **Device Manufacturer**.

The chatbot will use the entity created in Task 1 to identify who the manufacturer of the device is based on the customer's response.

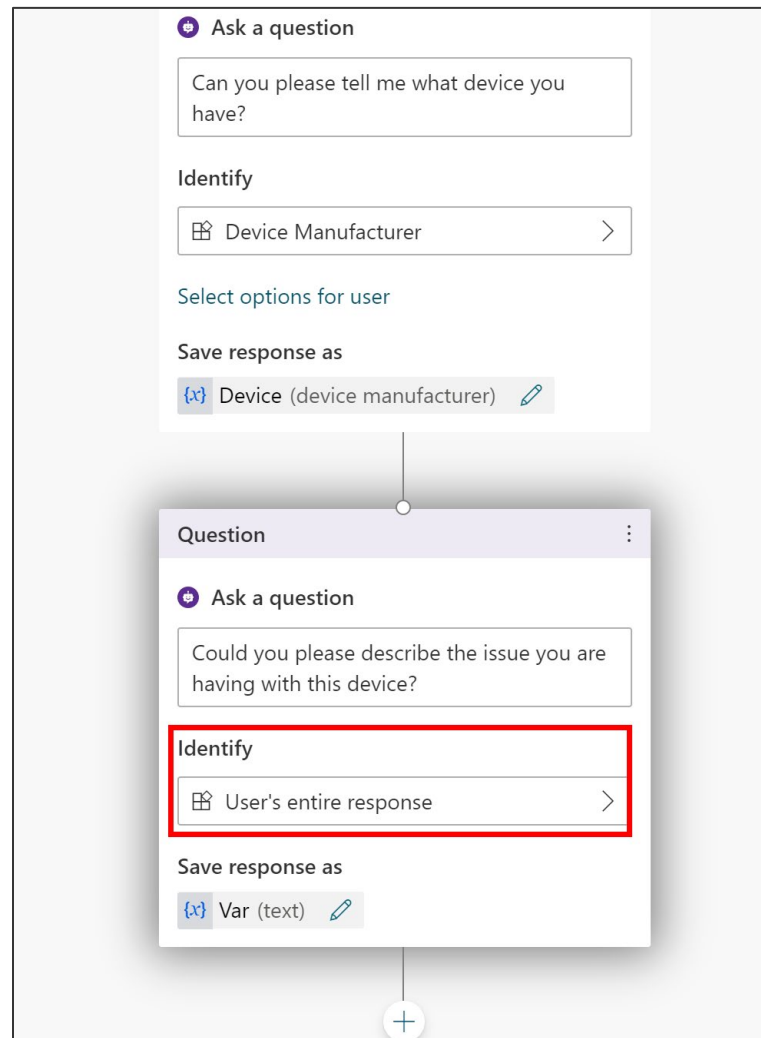


- In the **Save response as** field, click **Var 1 (device manufacturer)** to open the renaming pane. Rename the variable from **Var** to **Device**. Close the pane to save the new variable name.

The screenshot displays the Power Virtual Agent interface. On the left, a 'Question' node is shown with a message box containing the text: 'I am sorry to hear that. Let's put you in touch with a specialist for your device.' Below this, the 'Ask a question' section contains the text: 'Can you please tell me what device you have?'. The 'Identify' section shows 'Device Manufacturer' as the selected option. The 'Save response as' section shows a variable named 'Device (device manufacturer)' with a red box highlighting the edit icon. On the right, the 'Variable Properties' pane is open, showing the variable's details. The 'Name' field is highlighted with a red box and contains the text 'Device'. The 'Type' is 'Device Manufacturer'. The 'Source' is 'Go to Source'. The 'Usage' section shows 'Topic (limited scope)' as the selected option. The 'Used by' section shows '(0)'.

- Add a new **Question node** underneath. Copy and paste this text in the **Ask a question** area of the new node.
Could you please describe the issue you are having with this device?

8. In the **Identify** area of the node, select **User's entire response**.



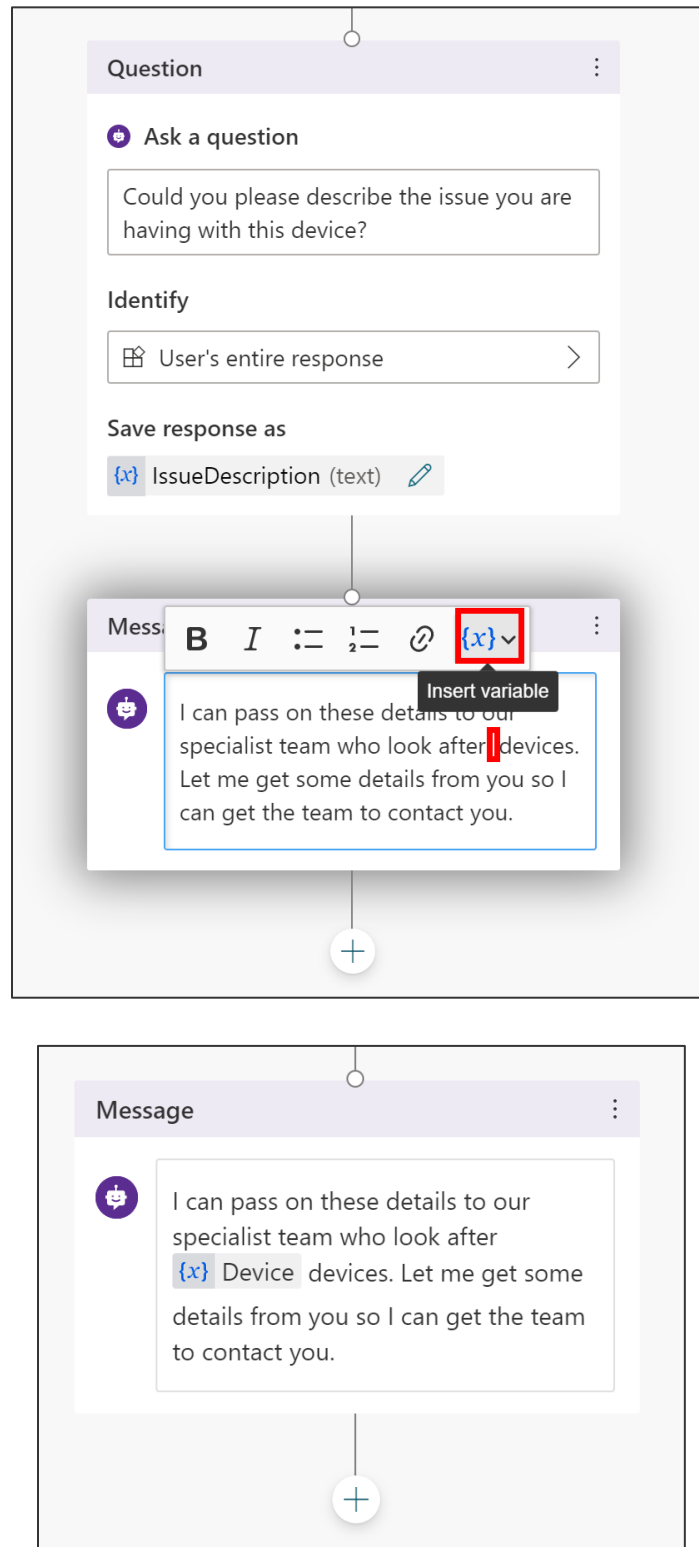
9. In the **Save response as** field, click **Var (text)** to open the renaming pane. Rename the variable from **Var** to **IssueDescription**. Close the pane to save the new variable name.

The screenshot displays the Power Virtual Agent configuration interface. On the left, a 'Question' node is shown with the text 'Can you please tell me what device you have?'. Below this, the 'Identify' section shows 'Device Manufacturer'. The 'Save response as' section shows 'Device (device manufacturer)'. A red box highlights the 'Var (text)' icon next to the variable name. On the right, the 'Variable Properties' pane is open, showing the 'Name' field with the value 'IssueDescription'. A red box highlights the 'Name' field. The 'Type' is 'Text' and the 'Source' is 'Go to Source'. The 'Usage' section shows 'Topic (limited scope)' selected. The 'Used by' section shows '(0)'.

10. Add a new **Message node** underneath. Copy and paste this text in the new Message node.

I can pass on these details to our specialist team who look after devices. Let me get some details from you so I can get the team to contact you.

11. In the same **Message node**, place your cursor in between the words **after** and **devices**. You will insert the **Device variable** in between these two words. It should appear as below.

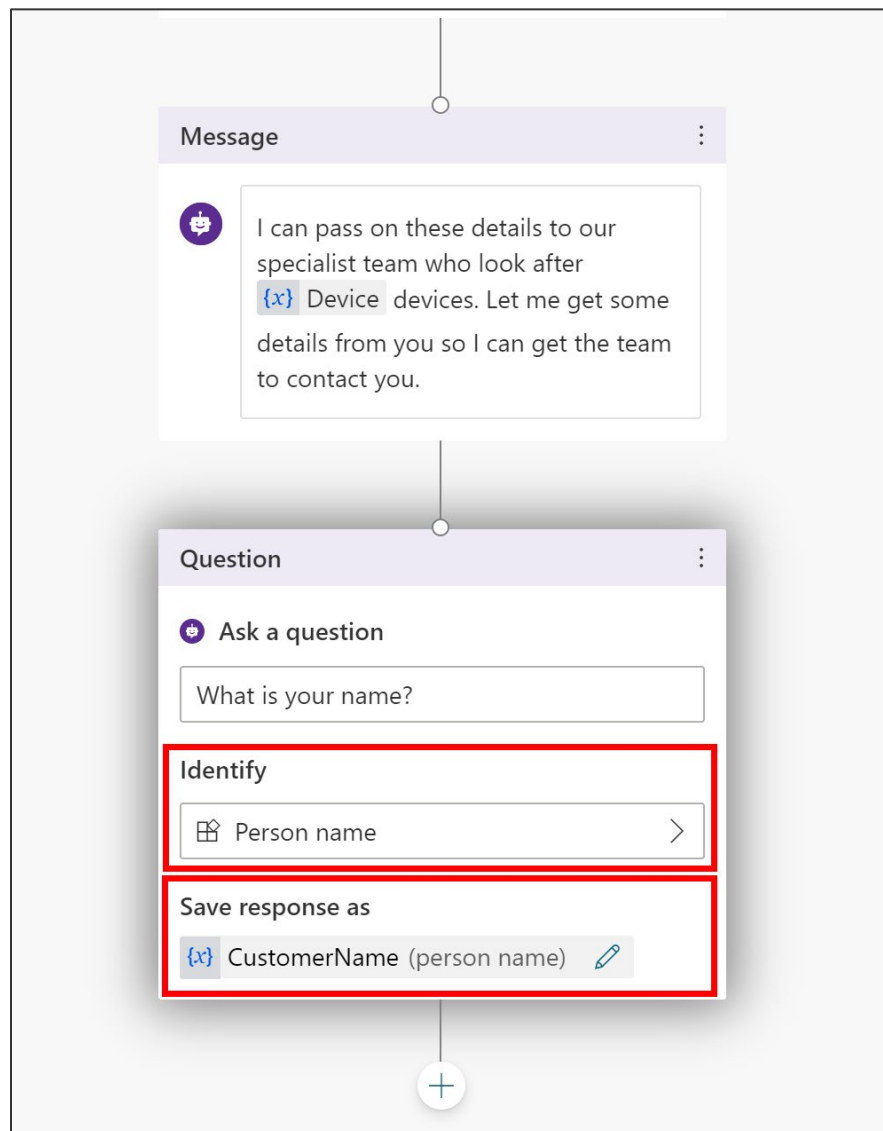


12. You will now add a few more questions to get information about the customer which will be sent to the user handling device complaints. Add a new **Question node** underneath the last Message node.

13. In the new **Question node**, copy and paste the following text in the **Ask a question** area.

What is your name?

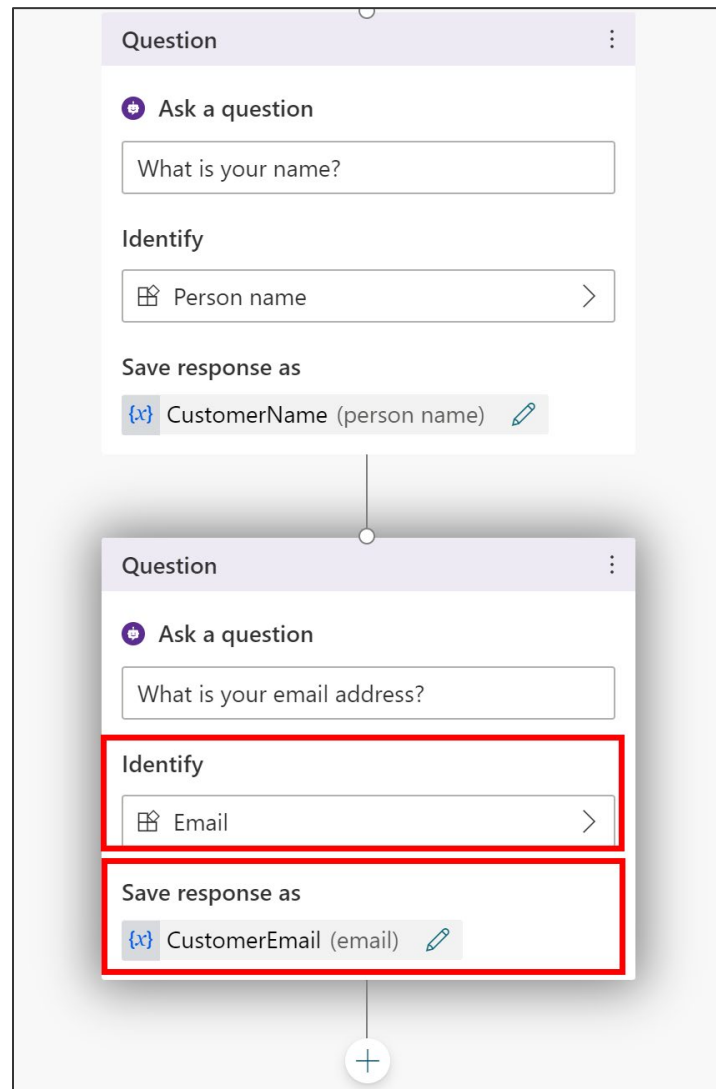
14. In the **Question node**, change the value of the **Identify** area to **Person name**. Rename the variable to **CustomerName**. It should appear as below.



15. Add a new **Question node** underneath. Copy and paste the following text in the **Ask a question** area.

What is your email address?

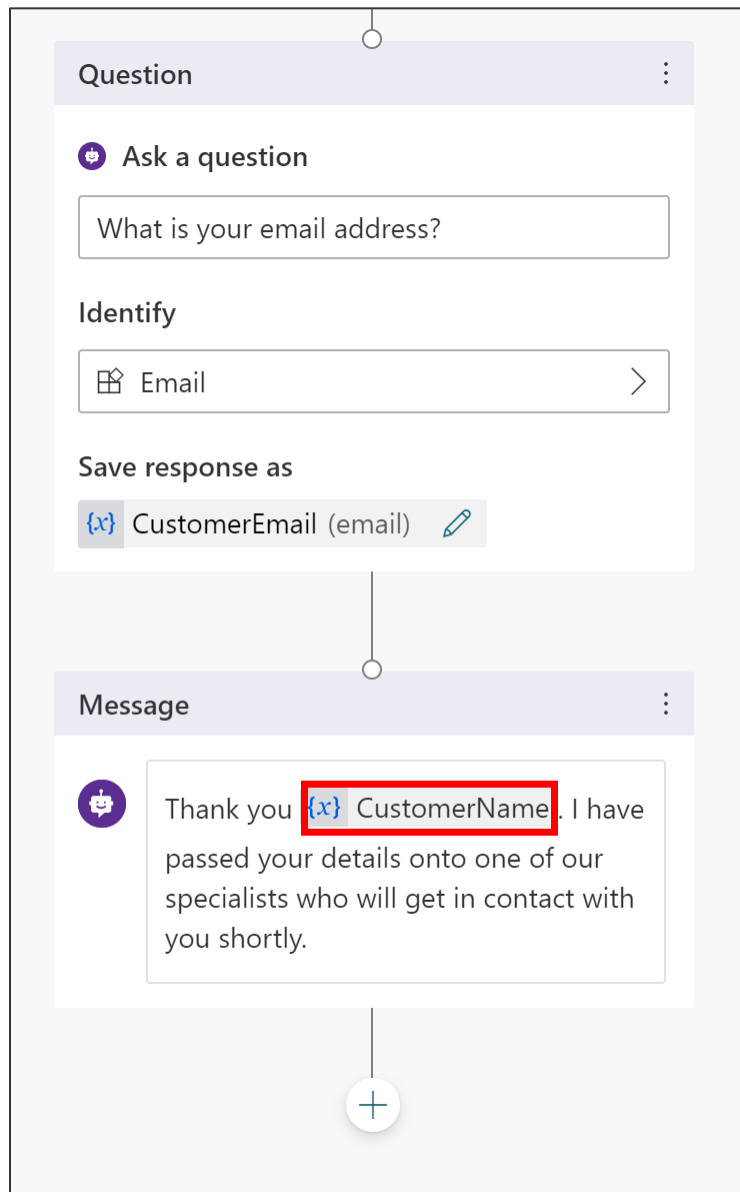
16. In the **Question node**, change the value of the **Identify** area to **Email**. Rename the variable to **CustomerEmail**. It should appear as below.



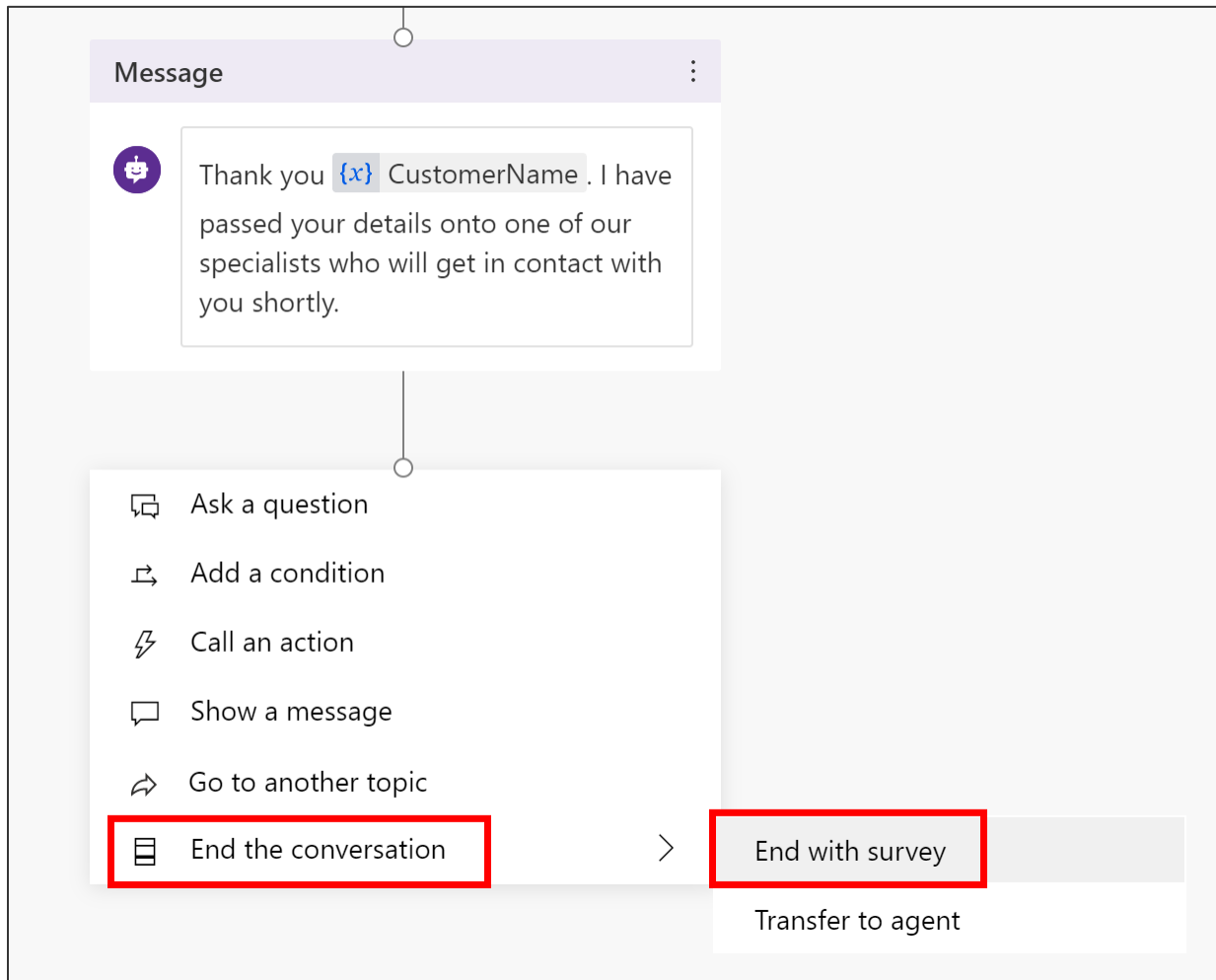
17. Add a new **Message node** underneath. Copy and paste the following text in the Message node.

Thank you. I have passed your details onto one of our specialists who will get in contact with you shortly.

18. In the same **Message node**, place your cursor after the space after the word **Thank you**. You will insert the **CustomerName** variable here. It should appear as below.



19. Add an **End the conversation > End with survey node** at the end.

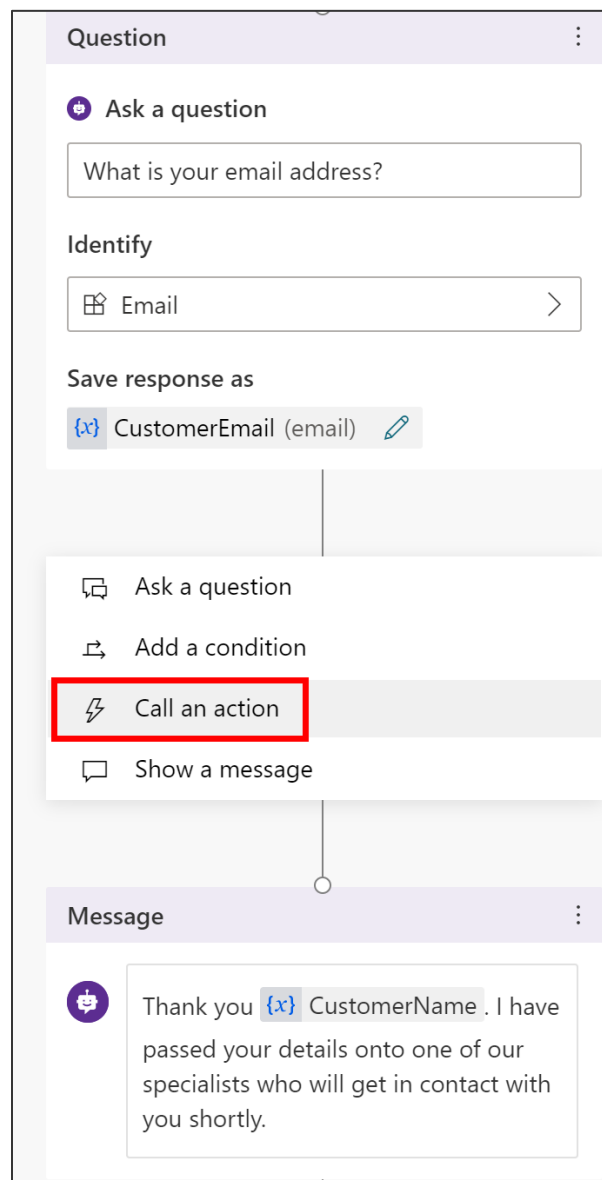


20. **Save** your chatbot

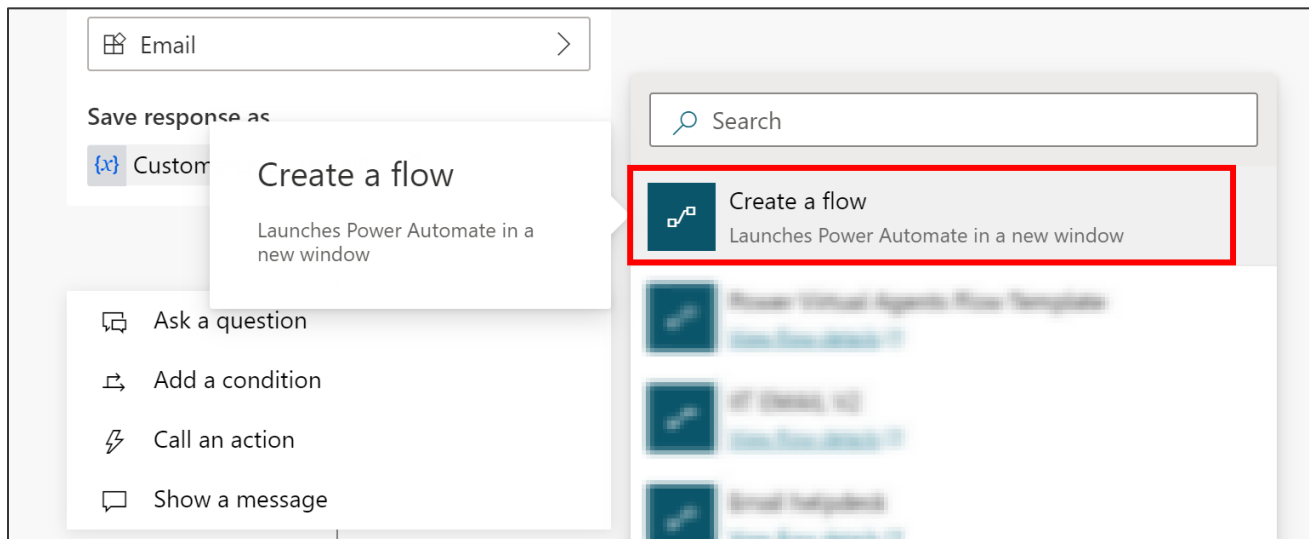
Task 4: Create a flow to send the customer's details to a user in Microsoft Teams

Now that you have created the conversation for this topic, you will add in steps to trigger a flow that you will build in Power Automate. This flow will take the details that the customer has submitted during the conversation, and send these details as a message to a user in Microsoft Teams (i.e. the Specialist in this scenario). For the purpose of this lab, the message in Teams will be sent to you as the logged in user for this lab.

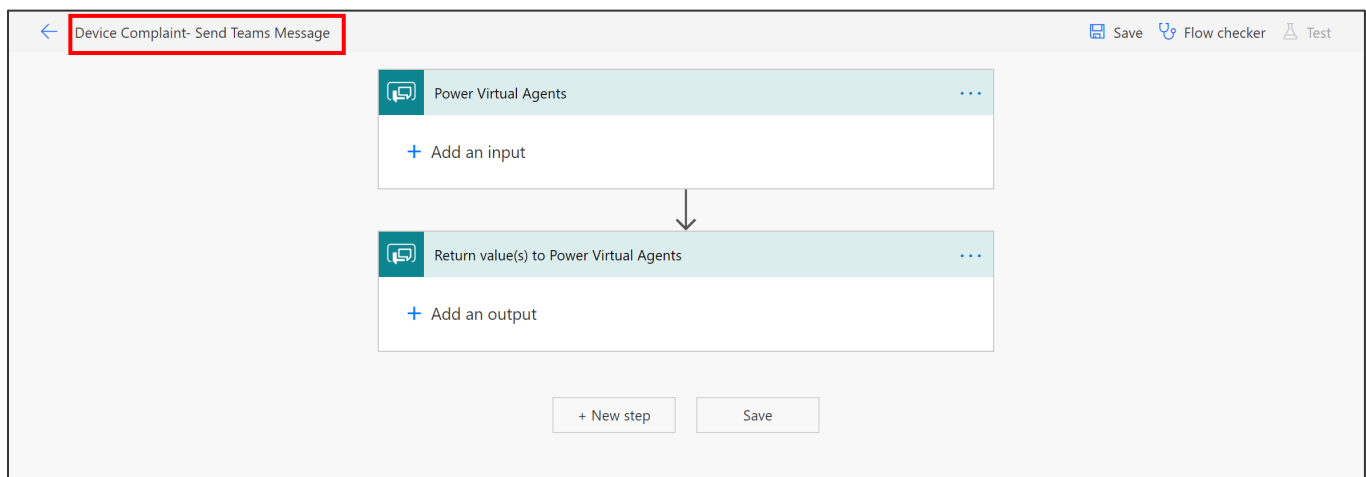
1. In your authoring canvas, add a new step in between the **Question node What is your email address?** and the last **Message node**. Click on **Call an action**.



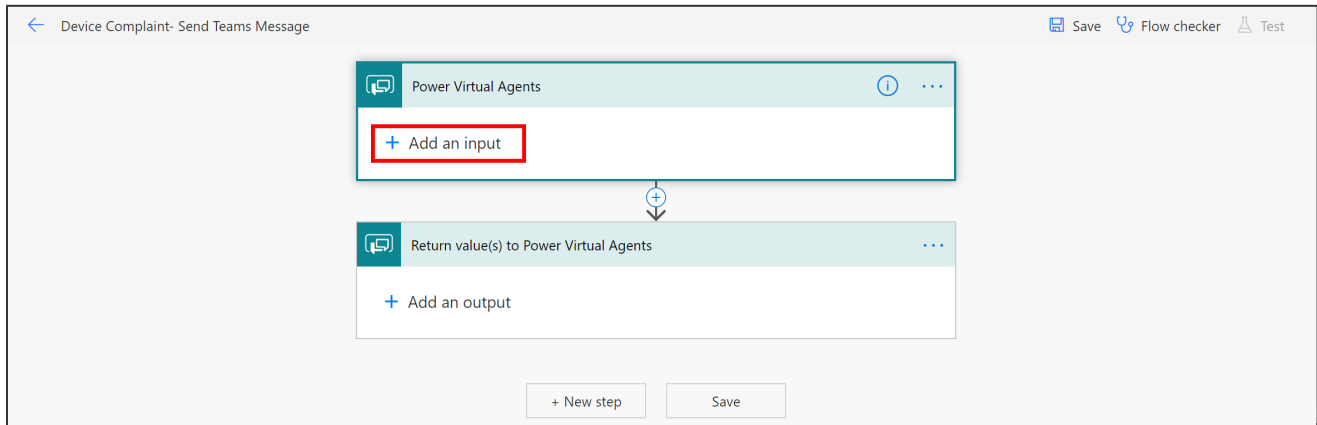
- In this task, you will be building the flow from scratch. Click on **Create a flow**. This will launch Power Automate in a new tab.



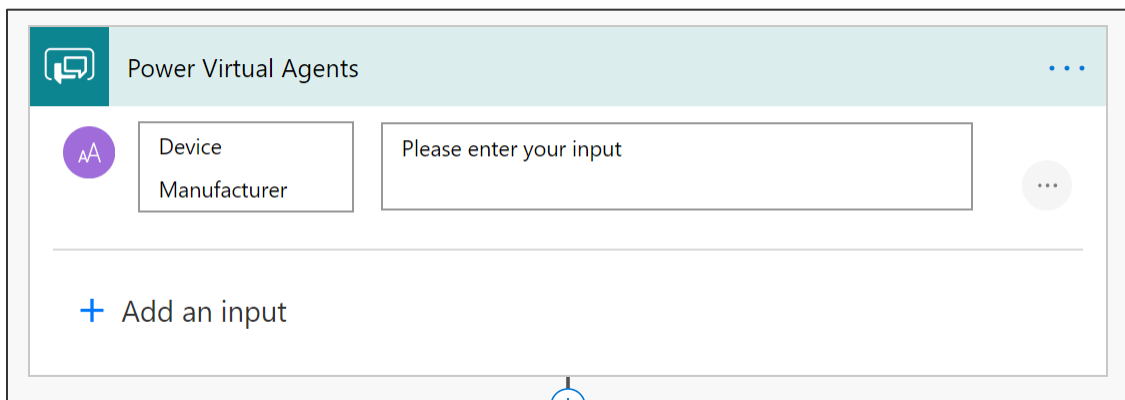
- Go to the Power Automate tab that launched. You will notice that this flow already has a trigger for Power Virtual Agents. You can now add in actions that you want the chatbot to take during the conversation with the customer.
- First, click on **Power Virtual Agents Flow Template** written on the top left of the flow canvas. Backspace this text and rename it to **Device Complaint- Send Teams Message**.



5. In the trigger (first step of the flow), you will add inputs that you want the flow use. These are the variables that the customer has provided us during the conversation with the chatbot. In the **first step of the flow**, click on **Add an input**.



6. Select **Text** as the **input type**. Backspace the word Input from the first textbox that appears, and replace it with **Device Manufacturer**.



7. You will now add more inputs. Repeat step 5 & 6 to add the following inputs.


Customer Name

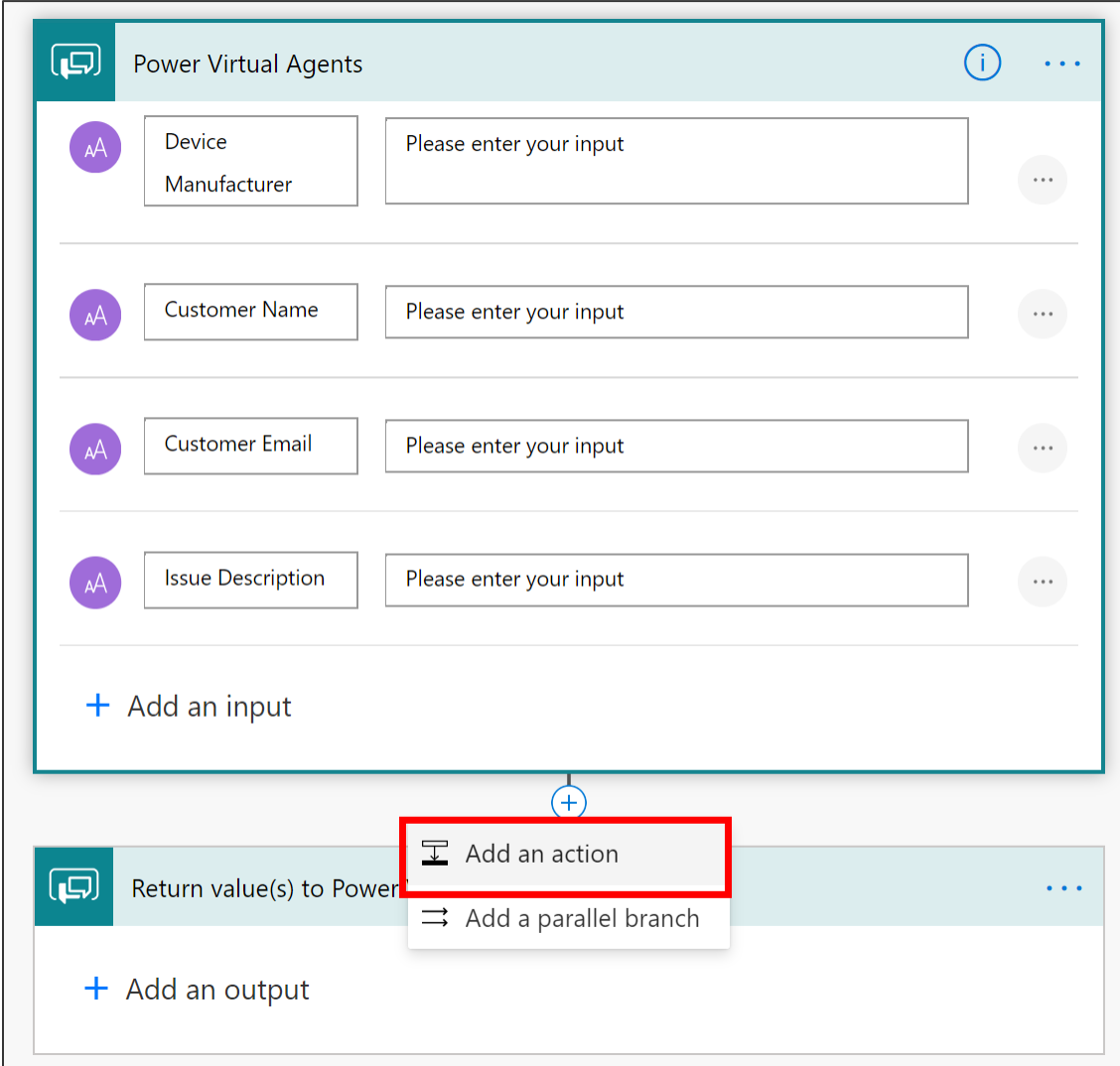
Customer Email

Issue Description

Your flow should appear as below.

The screenshot displays a Power Automate flow editor. The first step, titled 'Power Virtual Agents', contains four input fields: 'Device Manufacturer', 'Customer Name', 'Customer Email', and 'Issue Description'. Each input field is represented by a purple circle with 'AA' and a text box labeled 'Please enter your input'. Below these fields is a '+ Add an input' button. A connector with a plus sign and a downward arrow links this step to the second step, titled 'Return value(s) to Power Virtual Agents'. This second step has a '+ Add an output' button. At the bottom of the editor are two buttons: '+ New step' and 'Save'.

8. Click on the  button that appears between the two Power Virtual Agent steps. Click **Add an action**.



The screenshot displays the Power Virtual Agents console interface. The top section, titled "Power Virtual Agents", contains four input steps, each with a purple "AA" icon, a label, and a text input field:

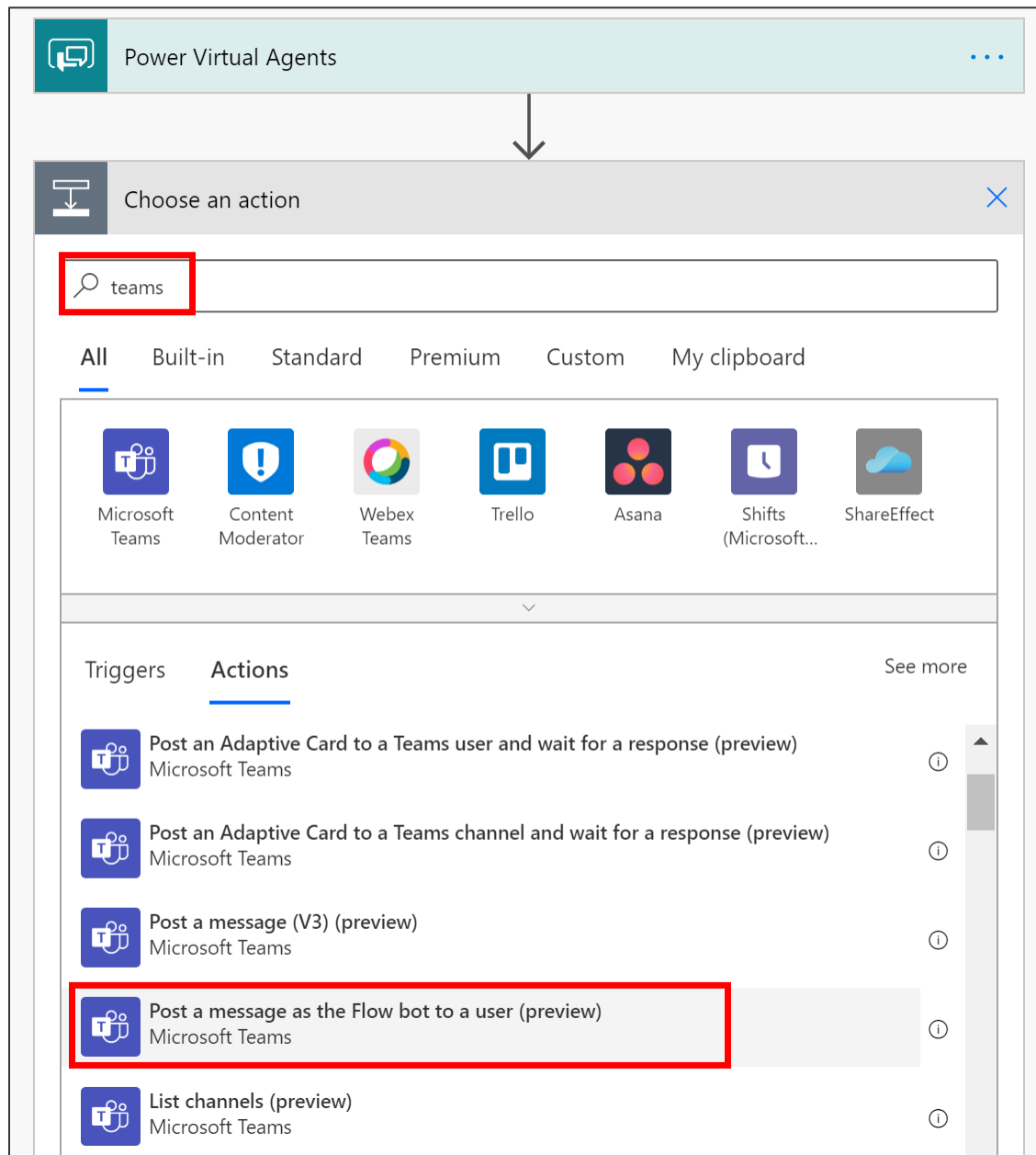
- Device Manufacturer: Please enter your input
- Customer Name: Please enter your input
- Customer Email: Please enter your input
- Issue Description: Please enter your input

Below these steps is a "+ Add an input" button. A blue circle with a "+" sign is positioned between the "Power Virtual Agents" section and the "Return value(s) to Power" section. A red rectangle highlights a dropdown menu that appears when this button is clicked, showing two options:

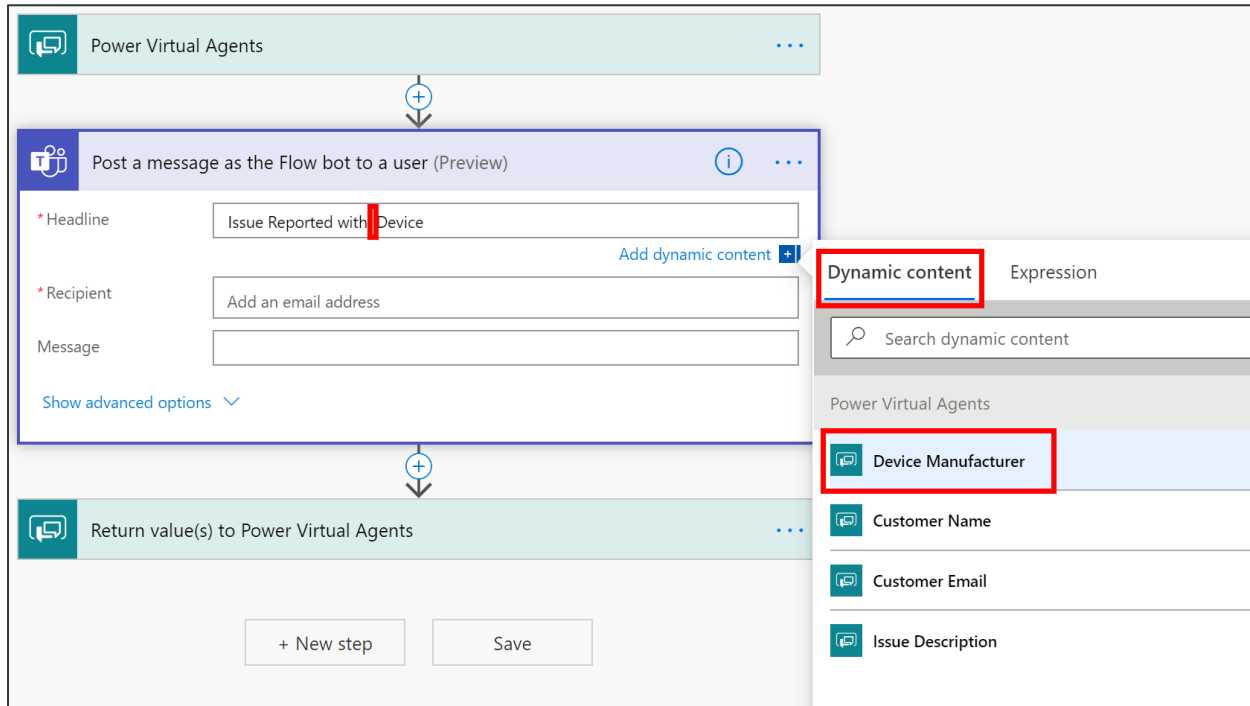
- Add an action
- Add a parallel branch

The bottom section, titled "Return value(s) to Power", includes a "+ Add an output" button.

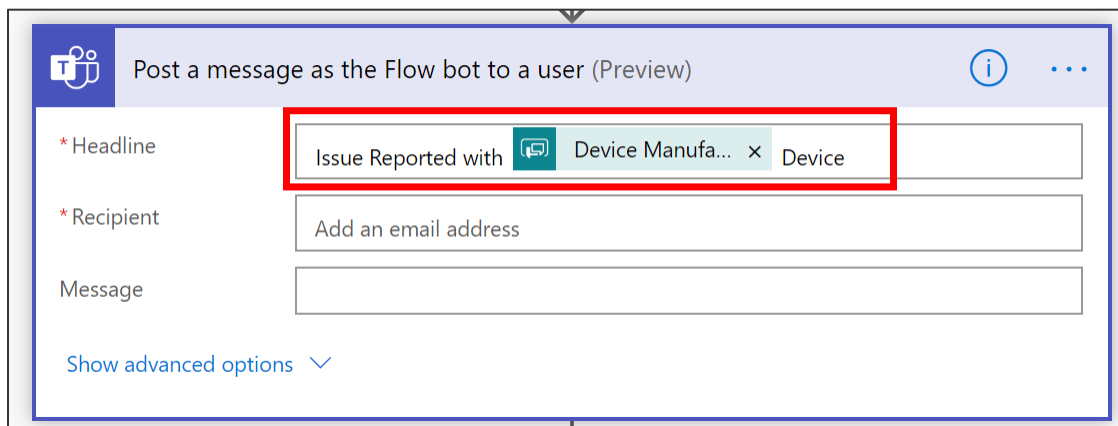
9. You will now add an action that will post a message to a Microsoft Teams user. In the search bar that appears, search **teams**. Select the Action called **Post a message as the Flow bot to a user**.



10. In the **Headline textbox**, type **Issue Reported with Device**. Place your cursor in between the words **with** and **Device**. You will enter dynamic content that will insert the customer's device manufacturer name here, which was identified during the chatbot conversation. You should see a pop out appear with dynamic content values. Click on **Device Manufacturer**. It should now appear as shown below.

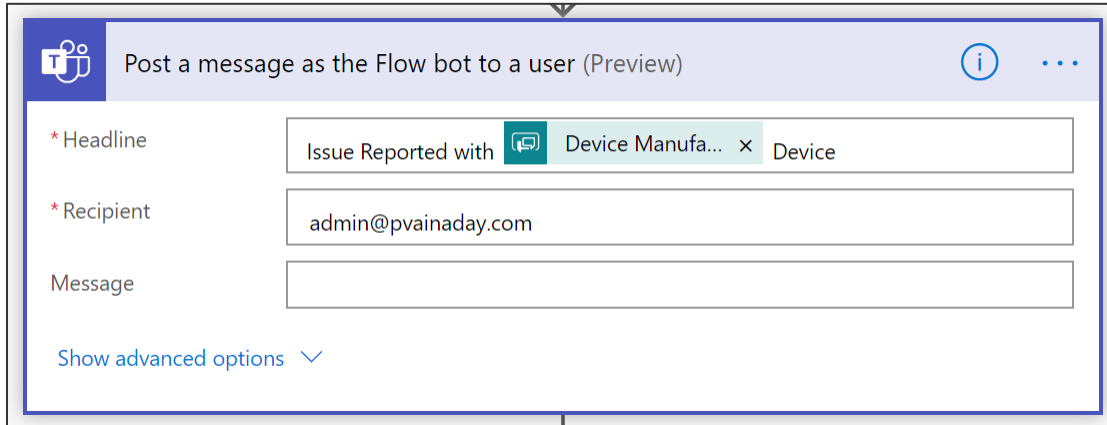


Note: If you do not see the dynamic content pop out, you may need to zoom out of your browser screen.



11. In the **Recipient textbox**, enter the email address of the user you are currently logged in as.

Note: The purpose of using your lab email address here is for training purposes only, so that you are able to see the result of the flow using your lab account.



Post a message as the Flow bot to a user (Preview)

* Headline Issue Reported with [Device Manufacturer] Device

* Recipient admin@pvainaday.com

Message

Show advanced options

12. Copy and paste the following text in the **Message** textbox.

A customer has reported an issue with their device. Please contact the customer to discuss.

Name:

Email:

Issue:

13. You will now add the related dynamic content to this message. In the **Message** textbox, Place your cursor in between the words **their** and **device**. Add the **Device Manufacturer dynamic content**.

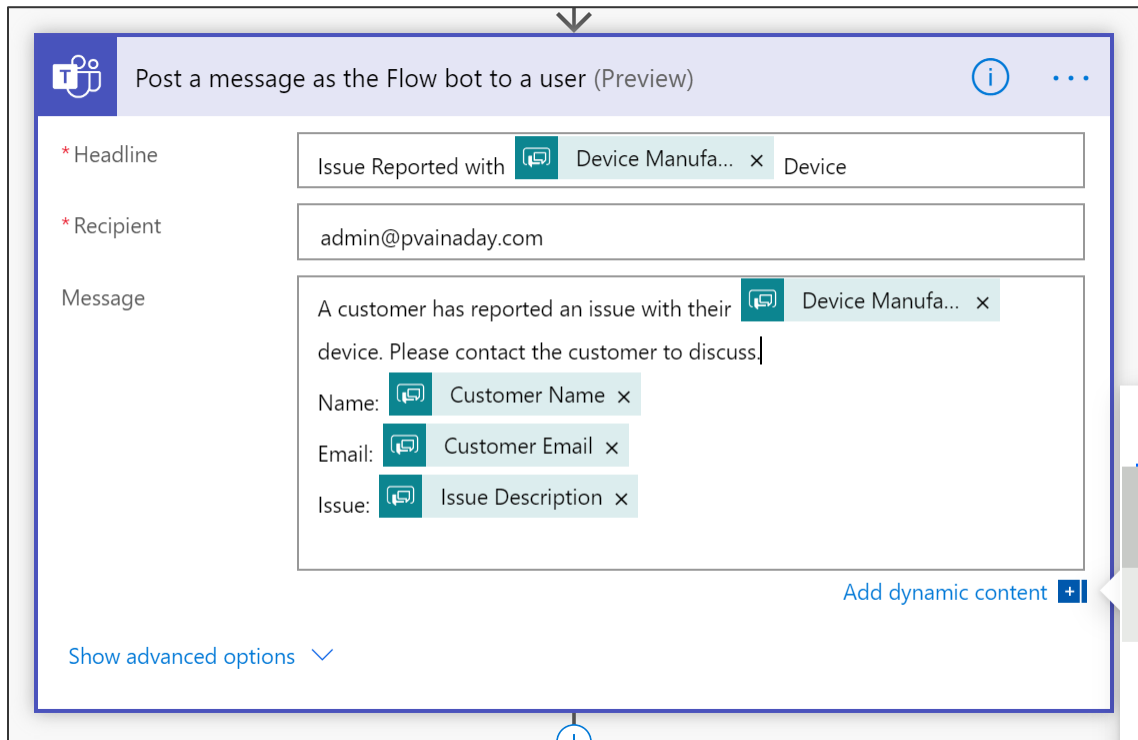
14. Add the following dynamic content next to the other words:

Name: **Customer Name**

Email: **Customer Email**

Issue: **Issue Description**

Your **Message** textbox should now appear as below.



The screenshot shows the 'Post a message as the Flow bot to a user (Preview)' window in the Power Virtual Agent console. The window has a header bar with the Microsoft Teams icon, the title, and an information icon. The main area is divided into three sections: 'Headline', 'Recipient', and 'Message'. The 'Headline' section contains the text 'Issue Reported with' followed by a dynamic content card 'Device Manufa...' and the word 'Device'. The 'Recipient' section contains the email address 'admin@pvainaday.com'. The 'Message' section contains a paragraph: 'A customer has reported an issue with their' followed by a dynamic content card 'Device Manufa...', then 'device. Please contact the customer to discuss'. Below this paragraph are three lines of dynamic content: 'Name: Customer Name', 'Email: Customer Email', and 'Issue: Issue Description'. At the bottom right of the message area is a link 'Add dynamic content' with a plus icon. At the bottom left is a link 'Show advanced options' with a downward arrow icon.

Post a message as the Flow bot to a user (Preview)

* Headline: Issue Reported with Device Manufa... x Device

* Recipient: admin@pvainaday.com

Message: A customer has reported an issue with their Device Manufa... x device. Please contact the customer to discuss

Name: Customer Name x

Email: Customer Email x

Issue: Issue Description x

Add dynamic content +

Show advanced options v

15. You will add spacing in between each line of the **Message textbox** to improve the formatting of the message once posted to Teams. Place your cursor at each of the marked spots below and press **Enter** on your keyboard to add a line space.

Post a message as the Flow bot to a user (Preview)

* Headline: Issue Reported with [Device Manufa... x] Device

* Recipient: admin@pvainaday.com

Message: A customer has reported an issue with their [Device Manufa... x] device. Please contact the customer to discuss. [Red bar]
Name: [Customer Name x] [Red bar]
Email: [Customer Email x] [Red bar]
Issue: [Issue Description x]

Show advanced options ▾

It should now appear as shown below.

Post a message as the Flow bot to a user (Preview)

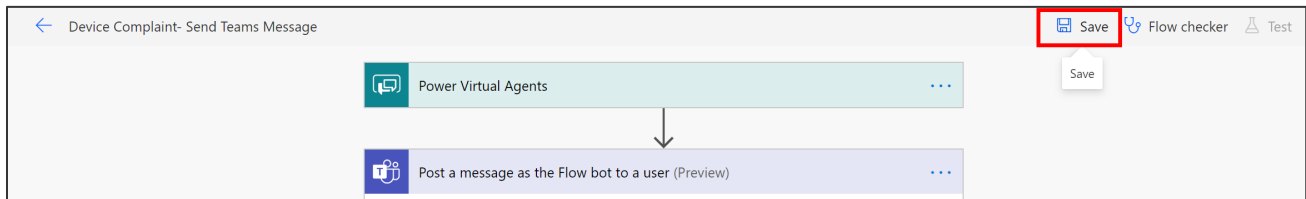
* Headline: Issue Reported with [Device Manufa... x] Device

* Recipient: admin@pvainaday.com

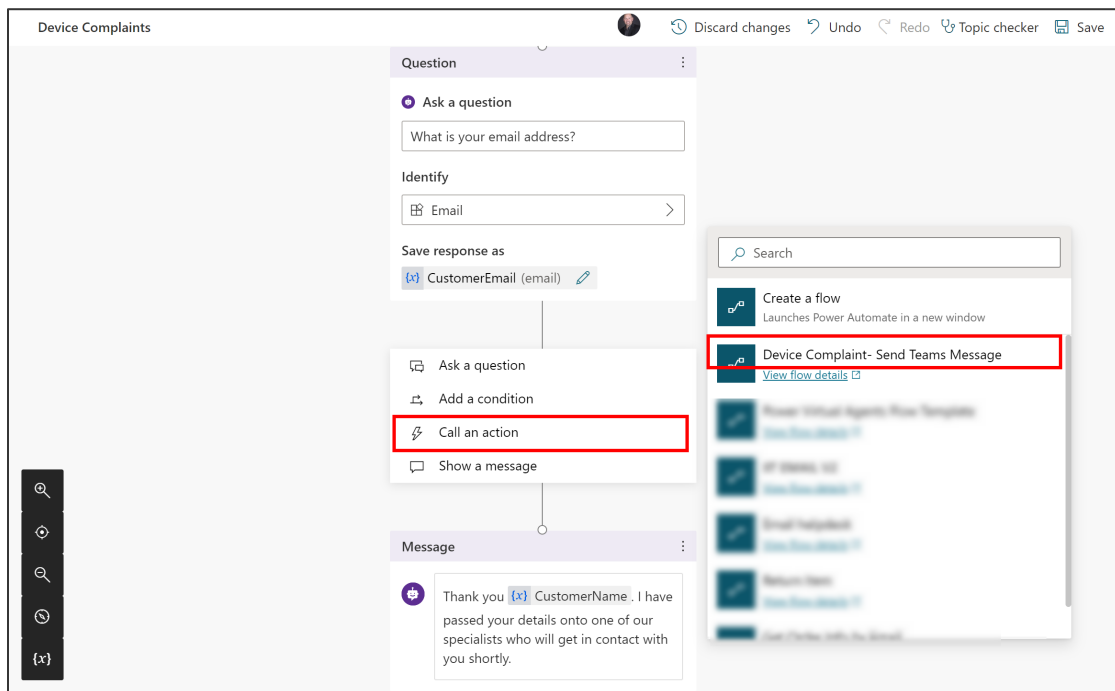
Message: A customer has reported an issue with their [Device Manufa... x] device. Please contact the customer to discuss.
Name: [Customer Name x]
Email: [Customer Email x]
Issue: [Issue Description x]

Show advanced options ▾

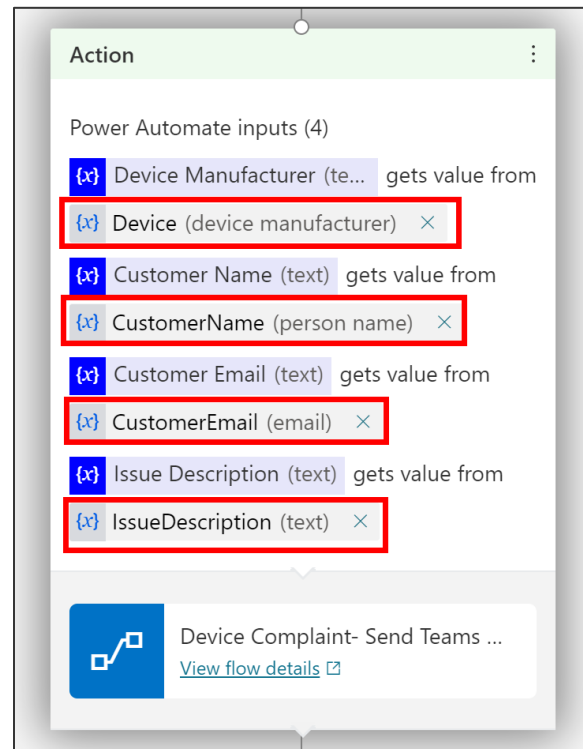
16. Click **Save** in the top right of your page



17. Go back to your Power Virtual Agents tab with your Device Complaints authoring canvas. Click on **Call an action** in between your **What is your email address? Question node** and the last **Message node**. You should now see your newly created flow **Device Complaint- Send Teams Message** appear in your list of flows. Click on it.






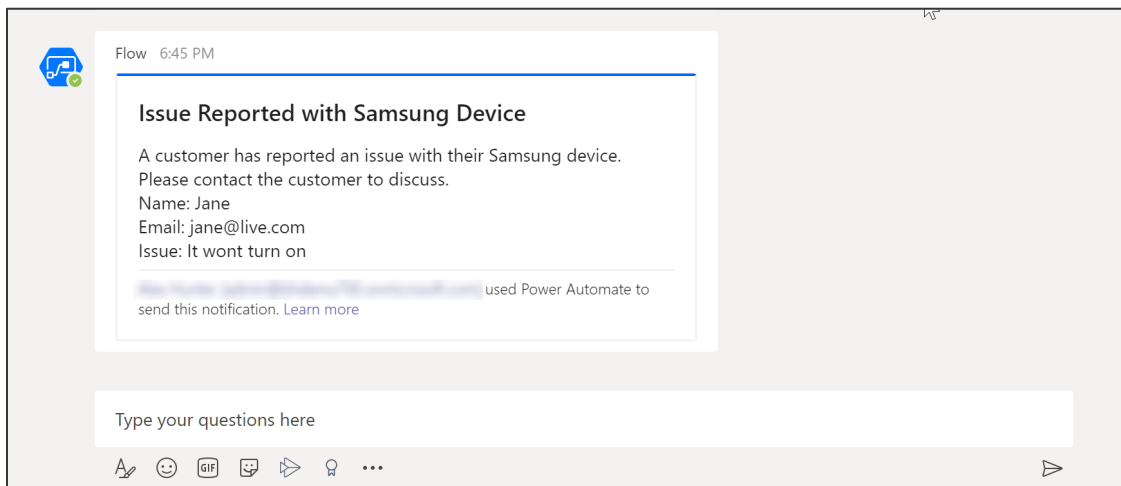
18. You will see an **Action node** appear containing the inputs you identified at the start of the flow. You will need to match these inputs to the variables obtained by the chatbot. Select the corresponding value for each of the 4 inputs as shown below.



19. **Save** your chatbot.

Task 5: Test your chatbot

1. First, you will open Microsoft Teams in a new tab so you can see the flow work while testing your chatbot. Click on the **waffle icon**  in the top left of your screen to view your Microsoft applications. Click on the  icon next to Teams, and click **Open in a new tab**.
2. Go back to your Power Virtual Agents tab with your Device Complaints authoring canvas open. Test your chatbot using the following steps:
 - i. Enter the trigger phrase **I have a problem with my device**
 - ii. Use **Samsung Series 7** as your device (you can try another device based on the Device Manufacturer entity created in Task 1)
 - iii. Describe the issue you are having, e.g. **It won't turn on**
 - iv. Enter your name
 - v. Enter an email address (this can be any email address)
3. Check your Microsoft Teams tab. In the **Chat**  section, you should see a message posted from Flow that contains the details you entered during your chatbot session.



You will see that the chatbot has identified the manufacturer of the device based on the Device Manufacturer entity created at the start of the lab.

Lab survey

We would appreciate your feedback on Power Virtual Agents and on this hands-on-lab, such as the quality of documentation and the usefulness of the learning experience.

Please use the survey at <https://aka.ms/PVAiaDSurvey> to share your feedback.

You may provide feedback for each module as you complete it or at the end once you've completed all the modules. Thank you!

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