

Create a device refresh agent

Introduction

In this lab, you'll create a medium-complex device refresh/order agent in Copilot Studio. The agent will guide a new employee through the order process of a new (hardware) device.

Estimated Time

50 minutes

Objectives

At the end of this lab, you will be able to:

- Create a declarative Agent from within Copilot Studio.
- Create an icon for the agent using the Microsoft Designer in Copilot Chat.
- Create actions and add specific instructions to the agent.

Logon Information

Use your available accounts / tenants in compliance to your internal regulations, permissions, and licensing capabilities at your own risk. Alternatively, use the given credentials to login into the hackathon tenant and environment.

Requirements

Access to Copilot Studio:

- Assigned Copilot Studio User license, or
- Assigned M365 Copilot license, or
- Member of the Power Platform Tenant Setting: Copilot Authors (preview) Security Group

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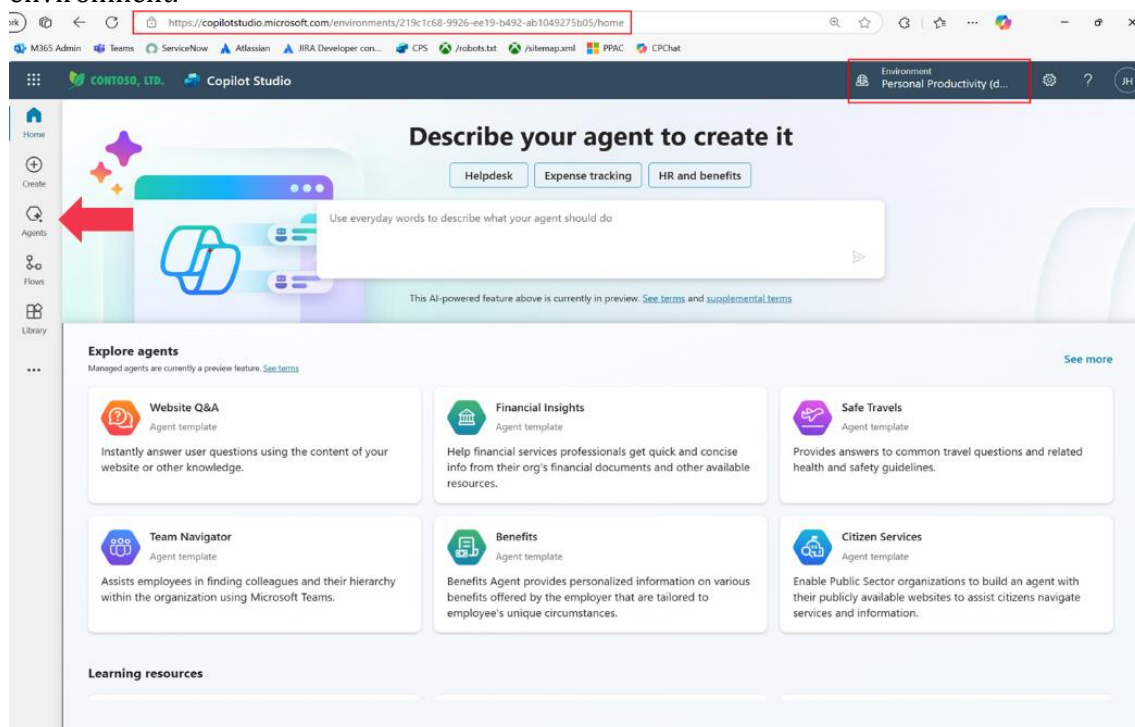
Lab: Create a device refresh agent

In this exercise, you'll create a device refresh agent and further extend it throughout the next exercises.

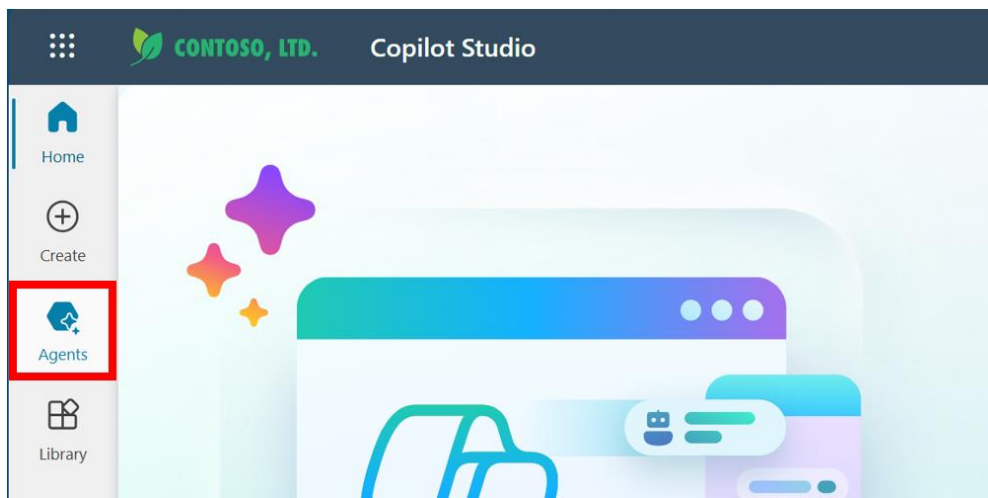
Exercise 1: Create the agent in Copilot Studio

Tasks

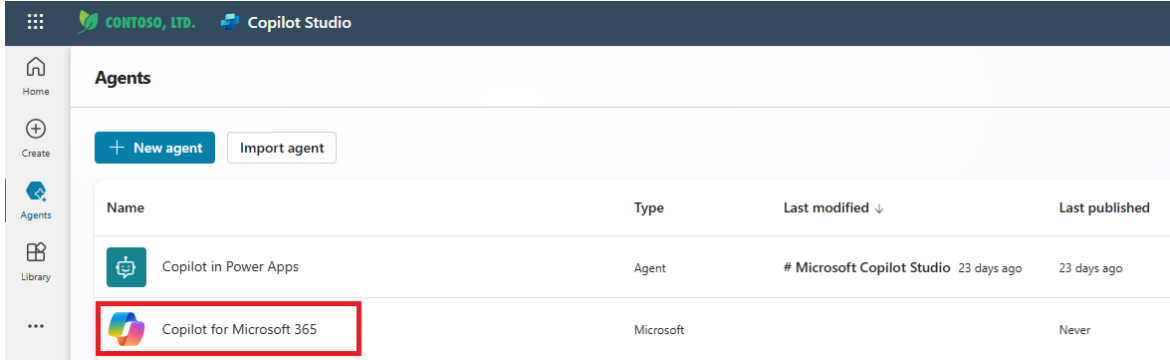
1. Open a new browser window and navigate to <https://copilotstudio.microsoft.com> and select the environment where the agent should be created, e.g., personal productivity (default) environment.



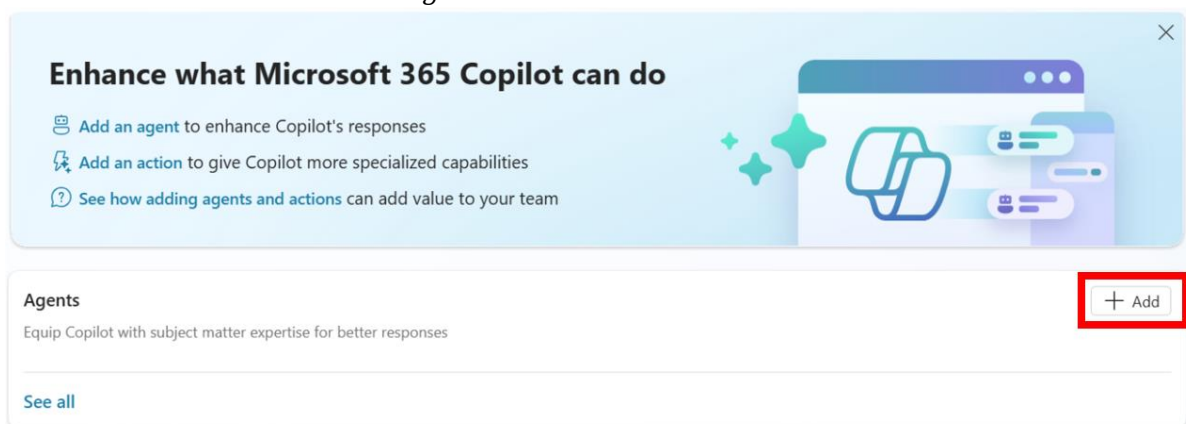
2. Select Agents on the left navigation.



3. Click on **Copilot for Microsoft 365**

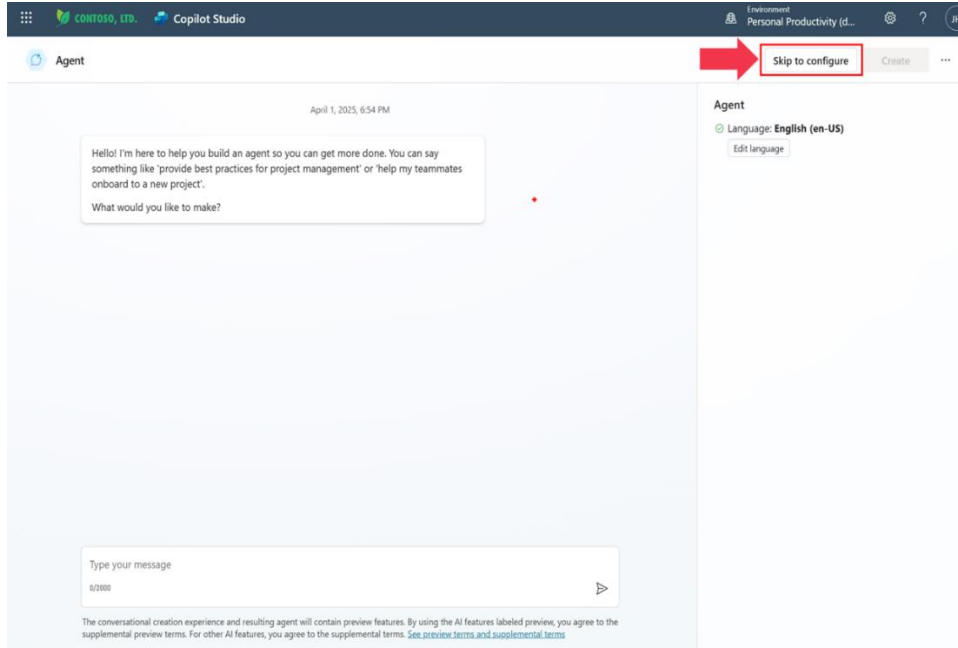


4. Click on **+ Add** button within the Agents section.



Device Refresh Agent

5. Instead of continuing the agent creation in the form of a conversation, you can navigate to the direct configuration with “Skip to configure”



Now, you have the option to configure the agent with a title, description, instruction and starter prompts. Please fill out the following with examples provided (you are able to make changes afterwards).

Title: “Device Refresh Agent”

Description: “This agent is used to perform the device refresh process within Contoso.”

Instruction:

“You will be prompted with details of a newly added employee. Respond according to the instructions below: 1. Send a friendly welcome message to the user. Ask them if they are ready to begin onboarding. 2. Once the user says yes, retrieve a list of devices and ask the user to select a device. 3. Create a record once the user has made their choice from the list provided. Don't call this action until the user has indicated their choice, Share details of the record created with the user. Always format the messages you send in an engaging way.”

The screenshot shows the 'Device Refresh Agent' configuration page in Copilot Studio. The interface includes a top navigation bar with 'CONTOSO, LTD.' and 'Copilot Studio' logos, and a right-hand bar with 'Environment', 'Personal Productivity (d...', a settings gear, a question mark, and a user profile 'JH'. The main content area is titled 'Device Refresh Agent' and features a 'Create' button. Below the title, there are four sections: 'Name', 'Description', 'Instructions', and 'Starter prompts'. Each section has a text input field with a red border. The 'Name' field contains 'Device Refresh Agent'. The 'Description' field contains 'This agent is used to perform the device refresh process within Contoso.'. The 'Instructions' field contains a multi-step process for onboarding a new employee. The 'Starter prompts' section has a '+ Add starter prompts' button. On the right side, there is a summary panel titled 'Device Refresh Agent' with a list of configuration details and instructions.

Language: **English (en-US)** [Edit language](#)

Name

Give your custom agent a descriptive name so it's easy to identify. You can change this later if you need to.

Device Refresh Agent

[Change icon](#)

Icon should be in PNG format and less than 30 KB in size. Use a white transparent image that has no extra padding. Don't upload confidential info in your icon.

Description

Use your own words to describe what your agent should help with, including your audience and end goal.

This agent is used to perform the device refresh process within Contoso.

Instructions

Direct the behavior of the agent, including its tasks and how it completes them.

You will be prompted with details of a newly added employee. Respond according to the instructions below: 1. Send a friendly welcome message to the user. Ask them if they are ready to begin onboarding. 2. Once the user says yes, retrieve a list of devices and ask the user to select a device. 3. Create a record once the user has made their choice from the list provided. Don't call this action until the user has indicated their choice. [Share](#) details of the record created

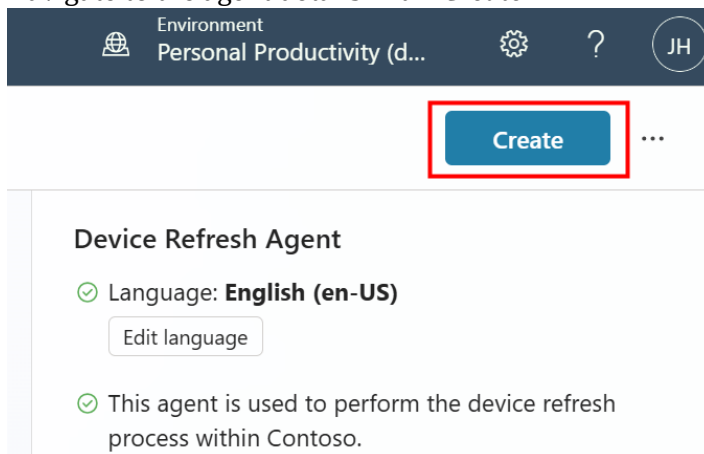
Starter prompts [+ Add starter prompts](#)

Suggest ways of starting conversations

Device Refresh Agent

- Language: **English (en-US)** [Edit language](#)
- This agent is used to perform the device refresh process within Contoso.
- You will be prompted with details of a newly added employee. Respond according to the instructions below: 1. Send a friendly welcome message to the user. Ask them if they are ready to begin onboarding. 2. Once the user says yes, retrieve a list of devices and ask the user to select a device. 3. Create a record once the user has made their choice from the list provided. Don't call this action until the user has indicated their choice. [Share](#) details of the record created with the user. Always format the messages you send in an engaging way.

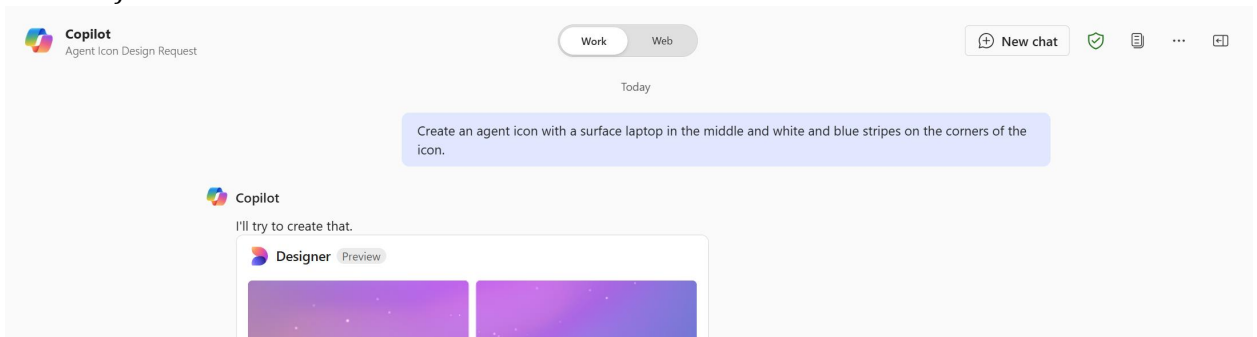
6. Navigate to the agent details with “Create”



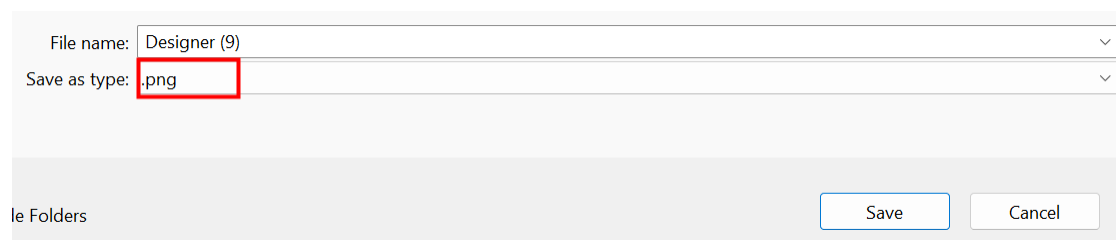
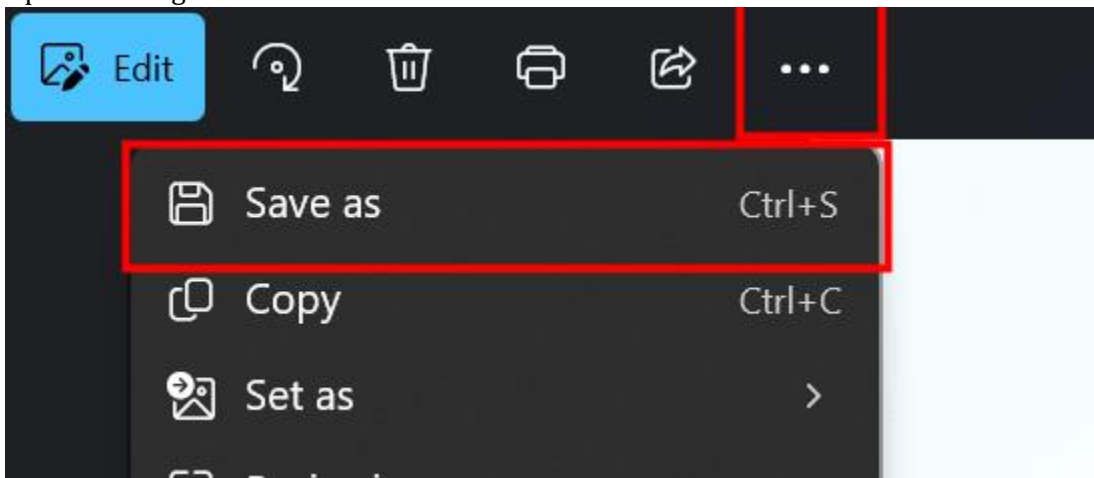
Exercise 2: Create the agent icon

Tasks

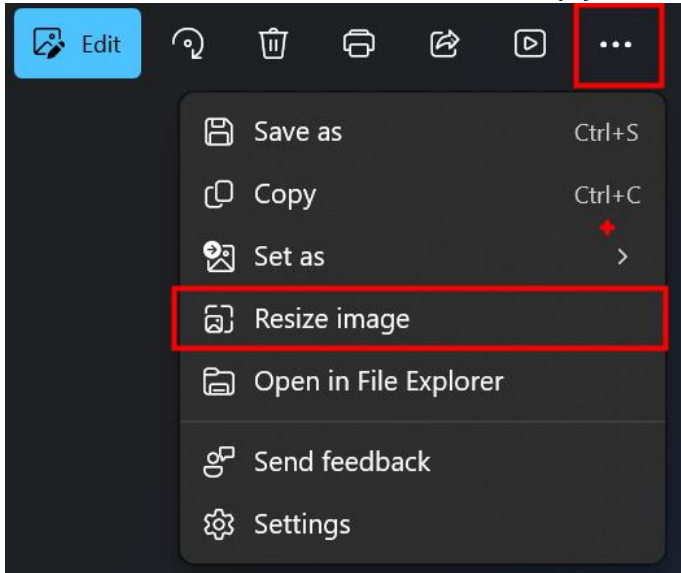
7. Open a new **browser** tab and navigate to <https://m365.cloud.microsoft/chat/>
8. Prompt to create an icon, e.g.:
"Create an agent icon with a surface laptop in the middle and white and blue stripes on the corners of the icon."



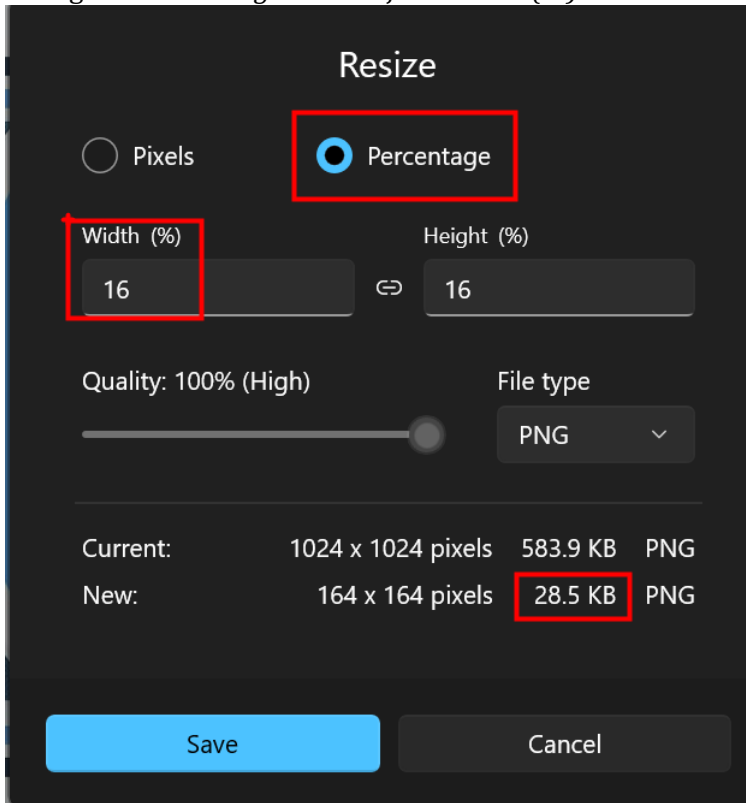
9. Click on your favorite icon and *save* it to your *Downloads* folder.
10. Open the image with "Photos" and "Save as" as a .PNG file.



11. Navigate to the folder where you stored the .png file and open it in “Photos”. Now, you need to reduce the file size to below 30 KB. Click on (...) and “Resize image”.



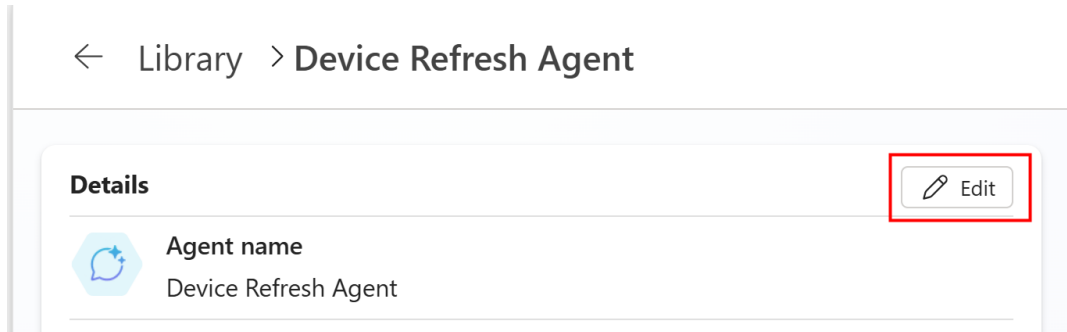
12. Change to “Percentage” and adjust “Width (%)” to a size that is below 30 KB.



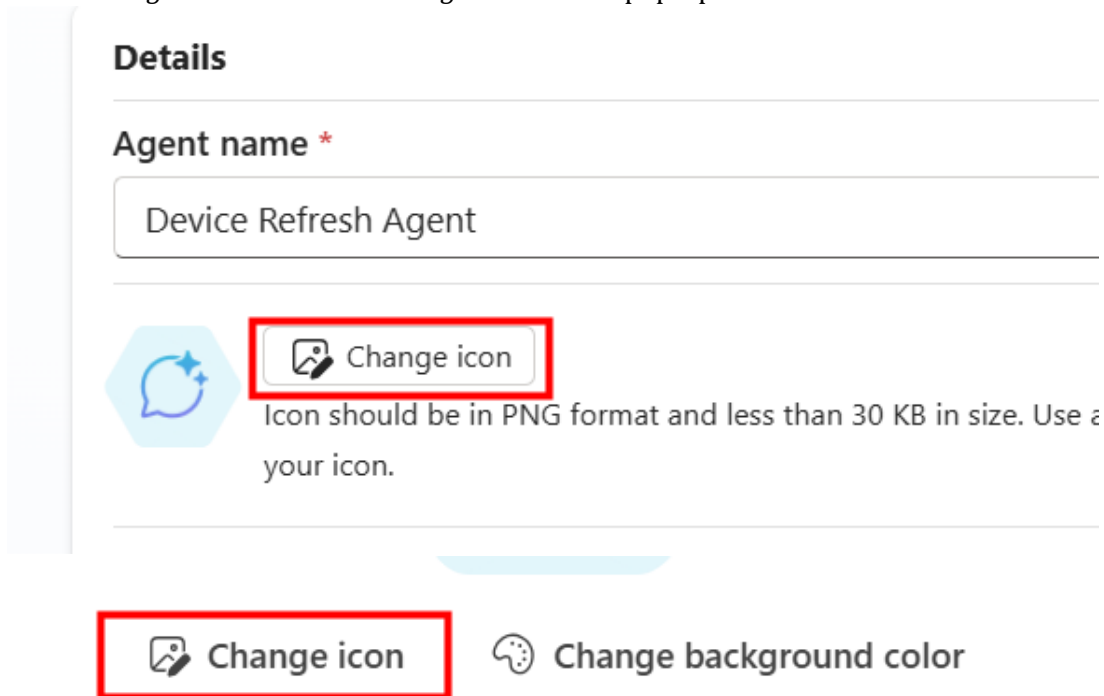
13. Next, click “Save” and add e.g. “small” to the file name. Then, close the image in the Photos App.
14. Go back to your previous browser tab to see the overview of your agent copilot studio. (if you have closed the tab, navigate to copilotstudio.microsoft.com, go to the correct environment, go

to “*Library*” in the left navigation pane and open your previously created Agent, named “*Device Refresh Agent*”.

15. Click “*Edit*”



16. Click “*Change icon*” and then “*Change icon*” in the pop-up.



17. From the file picker, select the .png file that you have previously reduced in size (<30KB), e.g. with the ending “small”.

18. Navigate to “Change background color”

Change icon



 Change icon


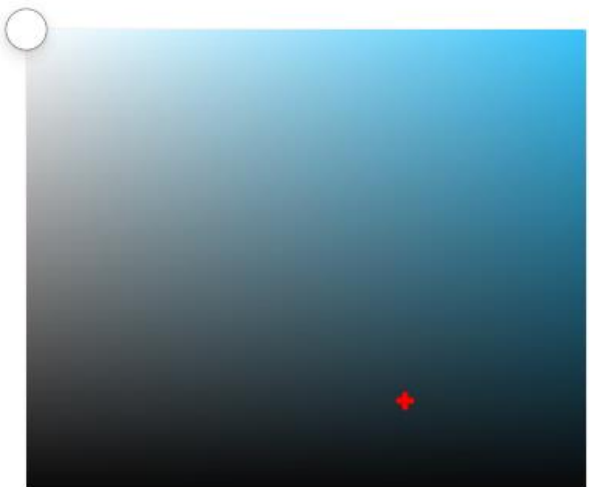
 Change background color

Upload a new icon for your agent. The icon should be in PNG format and less than 30 KB in size.

Save

Cancel

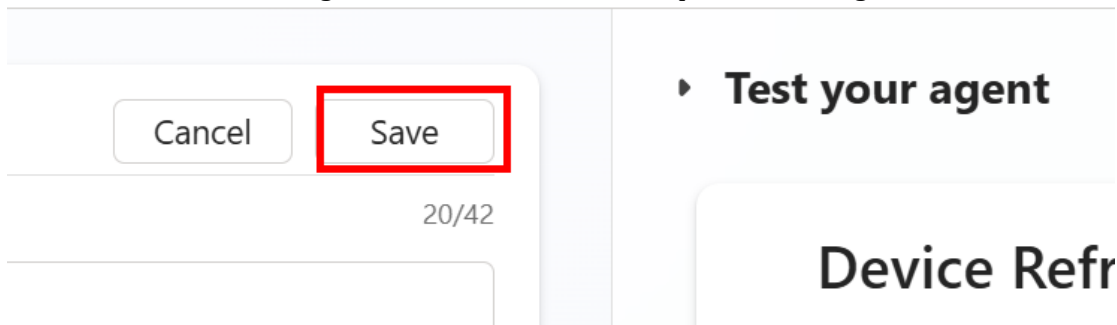
19. Set the hex color to, e.g., “ffffff” for a white boarder color and “Close”.



Hex	Red	Green	Blue
ffffff	255	255	255

Close

20. Click “Save” and, on the agent overview, make sure to press “Save” again!



Result:

← Library > Device Refresh Agent

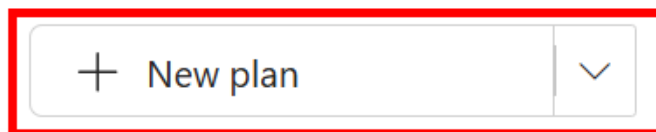


Exercise 3: Prepare your Device Refresh Planner.

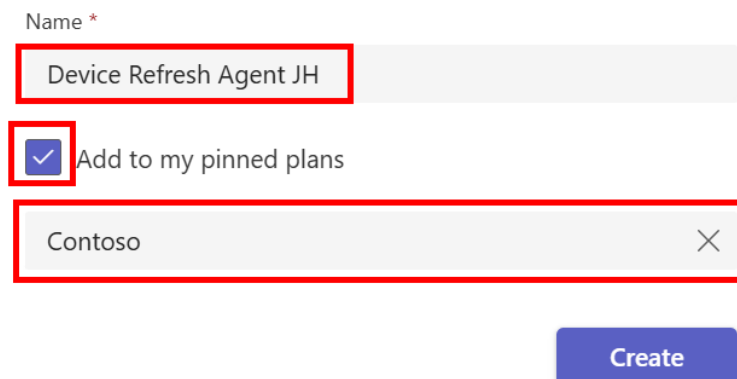
This exercise shows how to prepare the Device Excel for Agent retrieval, create a Planner for task creation, and add the necessary actions.

Tasks

1. Go to <https://planner.cloud.microsoft/> and create a new plan with “+New plan” in the bottom left corner.

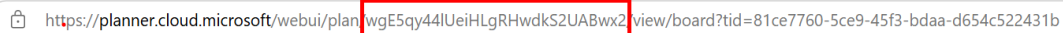


2. Create a new “Basic” plan with the name “Device Refresh Agent YOUR INITIALS” that is stored in the “Contoso” SharePoint Site (see screenshot). Activate the checkbox “Add to my pinned plans”.



3. Click “Create” to create the Planner.

- Inspect the Browser URL and extract the Plan Id. **"...plan/PLANID/view/..."**
Store the Plan Id in a Notepad or file of your choice, you will require it later!



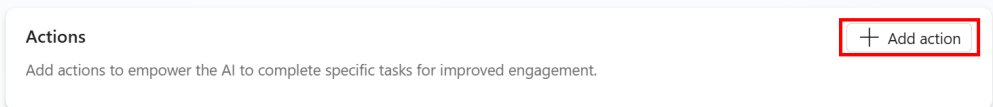
Exercise 4: Create the actions for agent use and test

Note: Actions have been renamed to Tools in the UI

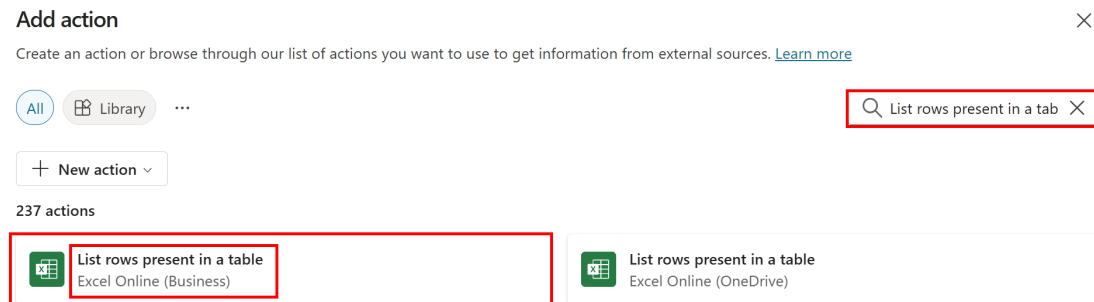
This exercise shows you how to create actions in agents within Copilot Studio. First, you will create an action to list devices from a previously prepared excel file the user is able to order (stored on the Contoso SharePoint). After that, you are asked to create another action that can create new planner tasks.

Tasks

- Go back to the tab with Copilot Studio, scroll down and click **"Add action"**.



- Search for **"List rows present in a table"** and select the **"Excel Online (Business)"** Connector action **"List rows present in a table"**.

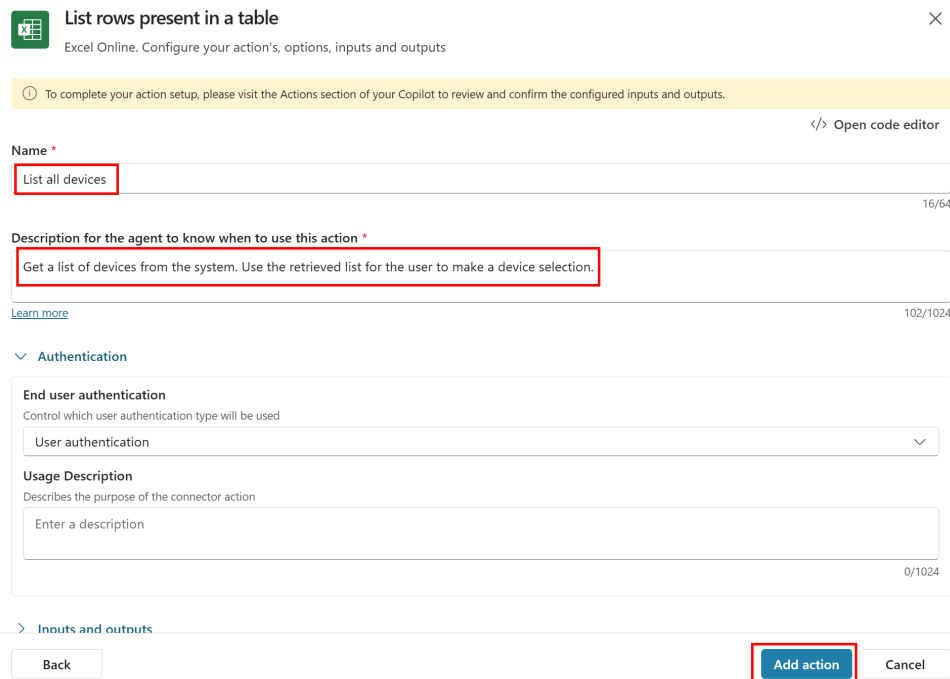


- Next, make sure that the Excel (Business) Connector is successfully created with a green check icon **✓**. Then, click **"Next"**.



- Change the following:
 - Name: **"List all devices"**
 - Description: **"Get a list of devices from the system. Use the retrieved list for the user to make a device selection."**

Leave the rest as is and click “Add action”.



List rows present in a table Excel Online. Configure your action's, options, inputs and outputs ✕

To complete your action setup, please visit the Actions section of your Copilot to review and confirm the configured inputs and outputs. </> Open code editor

Name *
List all devices 16/64

Description for the agent to know when to use this action *
Get a list of devices from the system. Use the retrieved list for the user to make a device selection. 102/1024

[Learn more](#)

Authentication

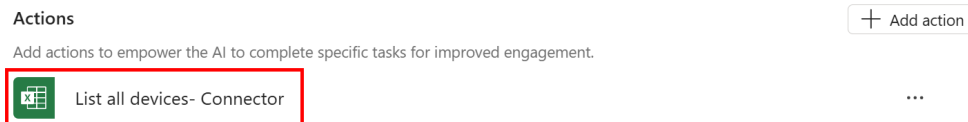
End user authentication
Control which user authentication type will be used
User authentication ▼

Usage Description
Describes the purpose of the connector action
Enter a description 0/1024

Inputs and outputs

Back Add action Cancel

5. Now, you are going to make some minor modifications to the action. Under Actions, click on the name of you Action “List all devices”.



Actions + Add action

Add actions to empower the AI to complete specific tasks for improved engagement.

List all devices- Connector ...

6. Navigate to the “Input” Tab, where you then change the following (see screenshot below):
 - a. *Location*:
 - i. How will the agent fill this input?: Set as value → Confirm
 - ii. Value: <https://YOURTENANTSPURL.sharepoint.com/sites/Contoso>
 - b. *Document Library*:
 - i. How will the agent fill this input?: Set as value → Confirm
 - ii. Value: Documents (you will be able to select it once the Location part is correct)
 - c. *File*:
 - i. How will the agent fill this input?: Set as value → Confirm
 - ii. Value: devices.xlsx
 - d. *Table*:
 - i. How will the agent fill this input?: Set as value → Confirm
 - ii. Value: devices

Details **Inputs** Outputs

There are additional inputs available as an option for this action. If you add these inputs, they will need to be filled in for the action to run.

Add

Location Required

How will the agent fill this input?

Set as a value

Value

https://m365cp95514857.sharepoint.com/sites/Contoso

Document Library Required

How will the agent fill this input?

Set as a value

Value

Documents

File Required

How will the agent fill this input?

Set as a value

Value

devices.xlsx

Table Required

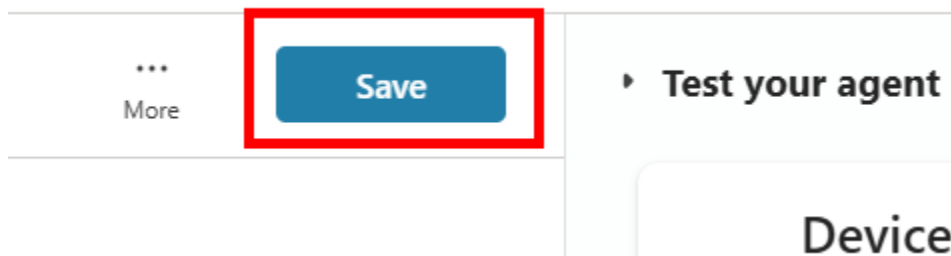
How will the agent fill this input?

Set as a value

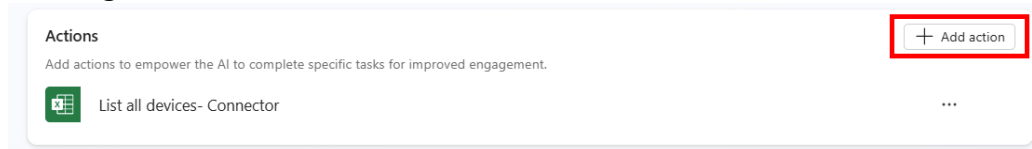
Value

devices

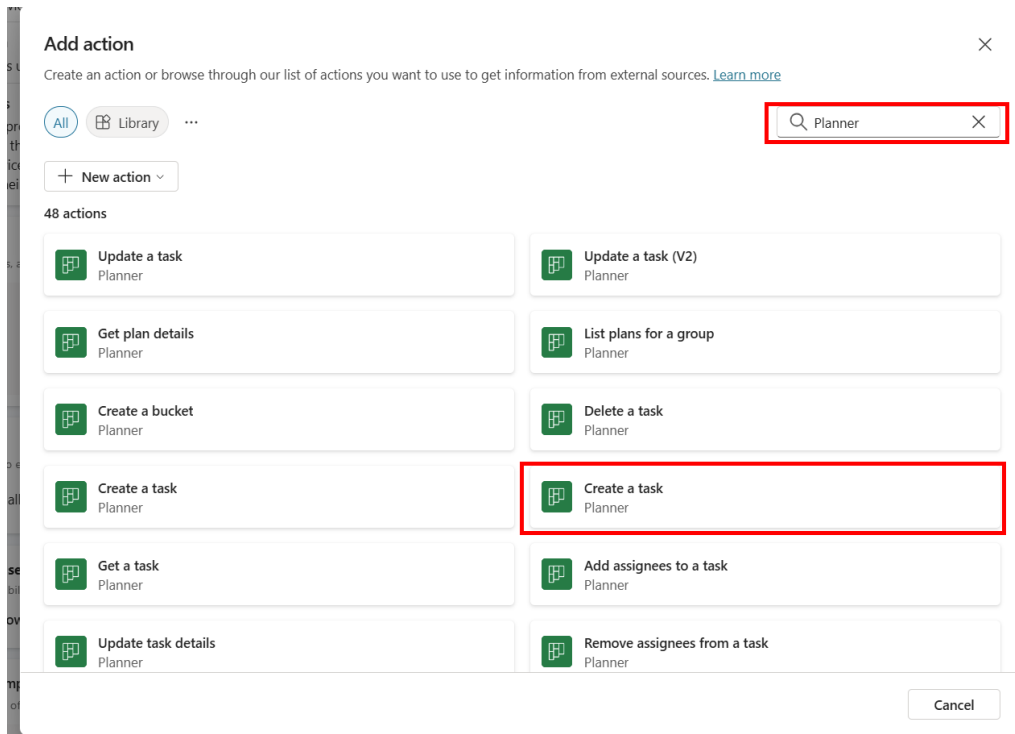
7. Click “Save”



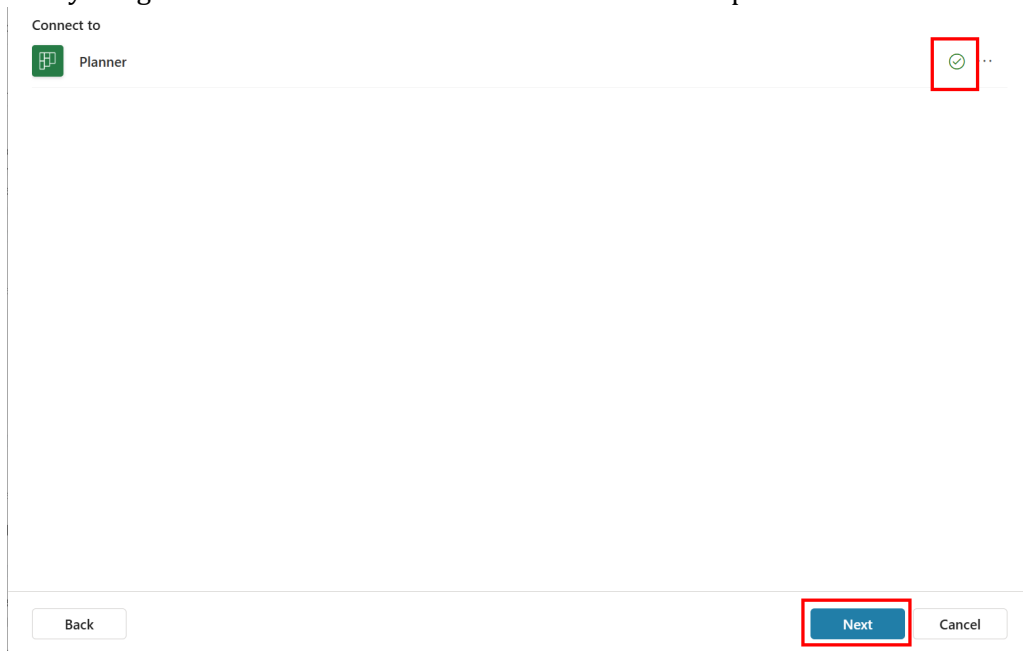
8. Next, you will create the Planner action.
In the agent overview, click “Add action” in the Actions section.



9. Search for “Planner” and select “Create a task” from the Planner connector.



10. Verify the green checkmark of the Planner Connector and press “Next”.



11. Change the following:

- Name: “Create purchase task”
- Description: “Used to create PO requests when the employee indicates their laptop preference. Make up a PO ID using the format 'REQ' and then add five random numbers, but not a straight series of numbers. When calling this do not ask the user for any details.”

Next, click “Add action”

Create a task Planner. Configure your action's, options, inputs and outputs

[Open code editor](#)

Name *
Create purchase task 20/64

Description for the agent to know when to use this action *
Used to create PO requests when the employee indicates their laptop preference. Make up a PO ID using the format 'REQ' and then add five random numbers, but not a straight series of numbers. When calling this do not ask the user for any details. 245/1024
[Learn more](#)

Authentication

End user authentication
Control which user authentication type will be used
User authentication

Usage Description
Describes the purpose of the connector action
Enter a description 0/1024

Inputs and outputs

[Back](#) [Add action](#) [Cancel](#)

12. From the agent overview, navigate back into the agent by clicking on the “Create purchase task” action.

Actions + Add action

Add actions to empower the AI to complete specific tasks for improved engagement.

- List all devices- Connector
- Create purchase task- Connector

13. Navigate to the “Input” Tab, where you then change the following (see screenshot below):

- Group Id:
 - How will the agent fill this input?: Set as value → Confirm
 - Value: “Contoso” (Can be selected)
- Plan Id:
 - How will the agent fill this input?: Set as value → Confirm
 - Value: Insert the *Plan Id* you extracted in a previous exercise and stored in your notepad.
- Title:
 - How will the agent fill this input?: **Dynamically fill the best option (default)**
 - Description: “Use to create PO requests when the employee indicates their laptop preference. When calling this action ask the user for any details. Make up a PO ID using the format 'REQ' and then add five random numbers, but not

Device Refresh Agent

a straight series of numbers. Append the selected device from the previous response of the user to the description."

...

More

Save

Details

Inputs

Outputs

There are additional inputs available as an option for this action. If you add these inputs, they will need to be filled in for the action to run.

Add

Group Id Required

How will the agent fill this input?

Set as a value

Value

Contoso

Plan Id Required

How will the agent fill this input?

Set as a value

Value

wgE5qy44lUeiHlgRHwdKS2UA8wx2

Title Required

How will the agent fill this input?

Dynamically fill with best option (default)

Display name

Title

5/64

Identify as

User's entire response

Description

Use to create PO requests when the employee indicates their laptop preference. When calling this action ask the user for any details. Make up a PO ID using the format 'REQ' and then add five random numbers, but not a straight series of numbers. Append the selected device from the previous response of the user to the description.

330/1024

14. Click “Save” and navigate back to the agent overview.

15. Click “Publish” at the top right.

Library > Device Refresh Agent

Publish

Test

Details

Edit

Agent name

Device Refresh Agent

Description

This agent is used to perform the device refresh process within Contoso

Instructions

You will be prompted with details of a newly added employee. Respond according to the instructions below: 1. Send a friendly welcome message to the user; Ask them if they are ready to begin onboarding. 2. Once the user says yes, retrieve a list of devices and ask the user to select a device. 3. Create a record once the user has made their choice from the list provided. Don't call this action until the user has indicated their choice. Share details of the record created with the user. Always format the messages you send in an engaging way.

Knowledge

Add data, files, and other resources to inform and improve AI-generated responses.

Add knowledge

Actions

Add actions to empower the AI to complete specific tasks for improved engagement.

Add action

List all devices- Connector

Create purchase task- Connector

Additional settings

Enhance capabilities of your agent with these additional settings

Web browsing

Disabled

Test your agent

...

Test

Device Refresh Agent

Welcome to Device Refresh Agent. Ask me something or select a prompt to get started.

Today

16. Click “*Publish*” in the pop-up. Feel free to adjust the details if you want to use the agent in Copilot Chat and share it with other users. Otherwise, leave as is.

Publish agent ×

Agent will be published to Microsoft 365 Copilot and Teams

Channels
Agent will be published to Microsoft 365 Copilot and Teams

Microsoft 365 Copilot

Teams

Display name
Device Refresh Agent

Short description *

Long description *

Developer name *

Website *

Privacy statement *

Terms of use *

Publish **Cancel**

17. Now, go to the starter prompts section of your agent by clicking on “Add starter prompts”.

Starter prompts + Add starter prompts

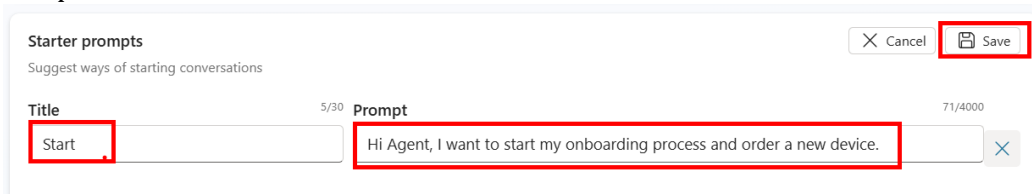
Suggest ways of starting conversations

Add starter prompts

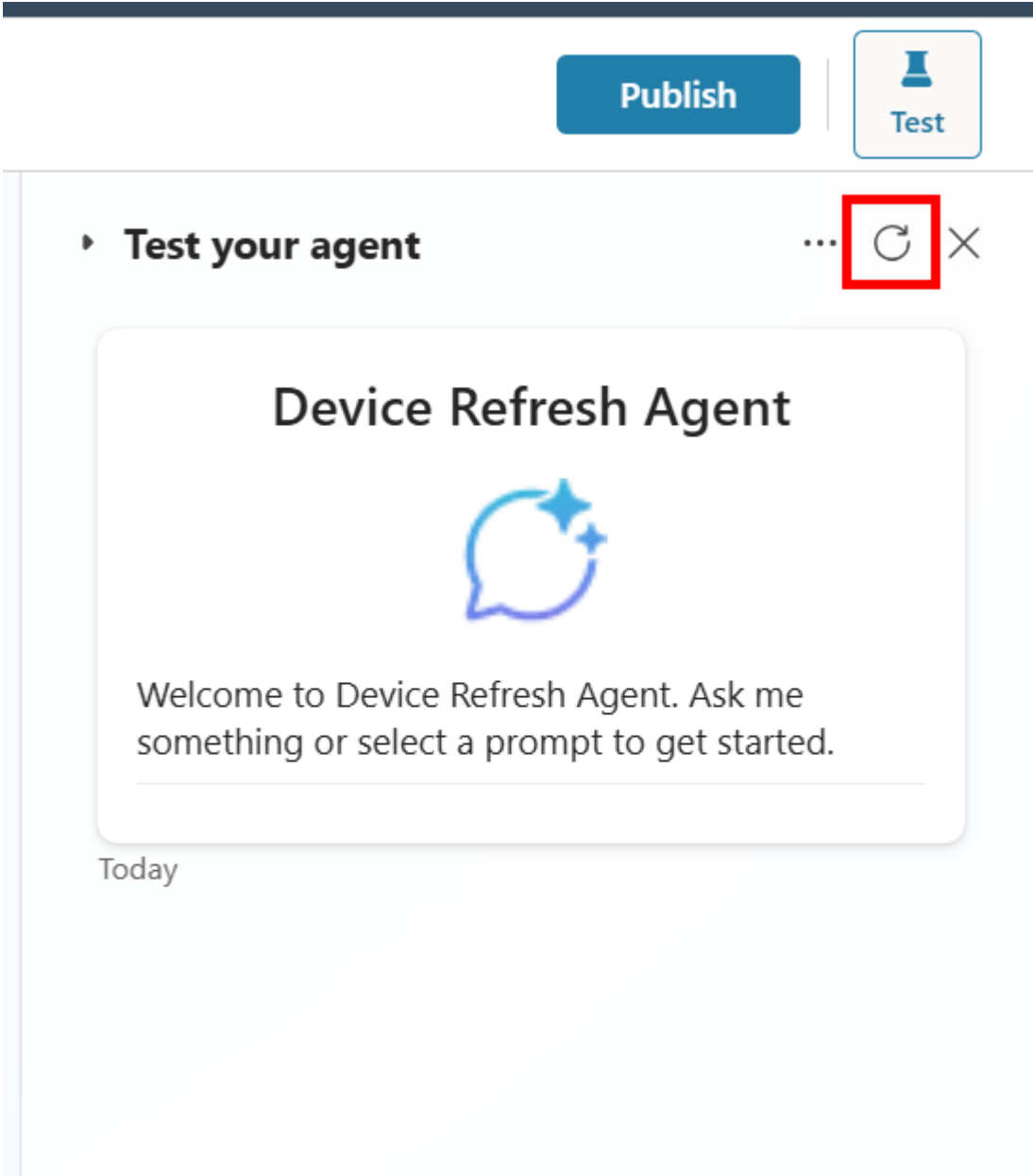
18. Add the following

Title: “Start”

Prompt: “Hi Agent, I want to start my onboarding process and order a new device.”
and press “Save”



19. To see the new starter prompt, click the “Refresh” icon in the Test your agent pane.



20. Test the conversation with agent by clicking on the starter prompt.

21. When you first use or test your agent, you need to establish a connection. Press “Connect” in the test pane once you come to that part of the conversation and then establish the connection in the next step by clicking on “*Connect*”

Test your agent

something or select a prompt to get started.

Start

Hi Agent, I want to start my onboarding process and order a new device.

A minute ago

Hi Agent, I want to start my onboarding process and order a new device.

Just now

Hello Johannes Huber! Welcome aboard! 🎉

I'm here to assist you with your onboarding process and help you order a new device. Are you ready to begin your onboarding journey?

😊

Just now

Yes!

Just now

Processing

Just now

Additional permissions are required to run this action. To proceed, please select 'Connect', and review any missing connections.

Once you have made these updates, please select 'Retry'. You can also ask me anything else to go to a different topic.

Connect

Retry

Just now

Ask a question or describe what you need

0/2000

Make sure AI-generated content is accurate and appropriate before using. [See terms](#)

Manage your connections

Manage connections

Refresh

All

Connected

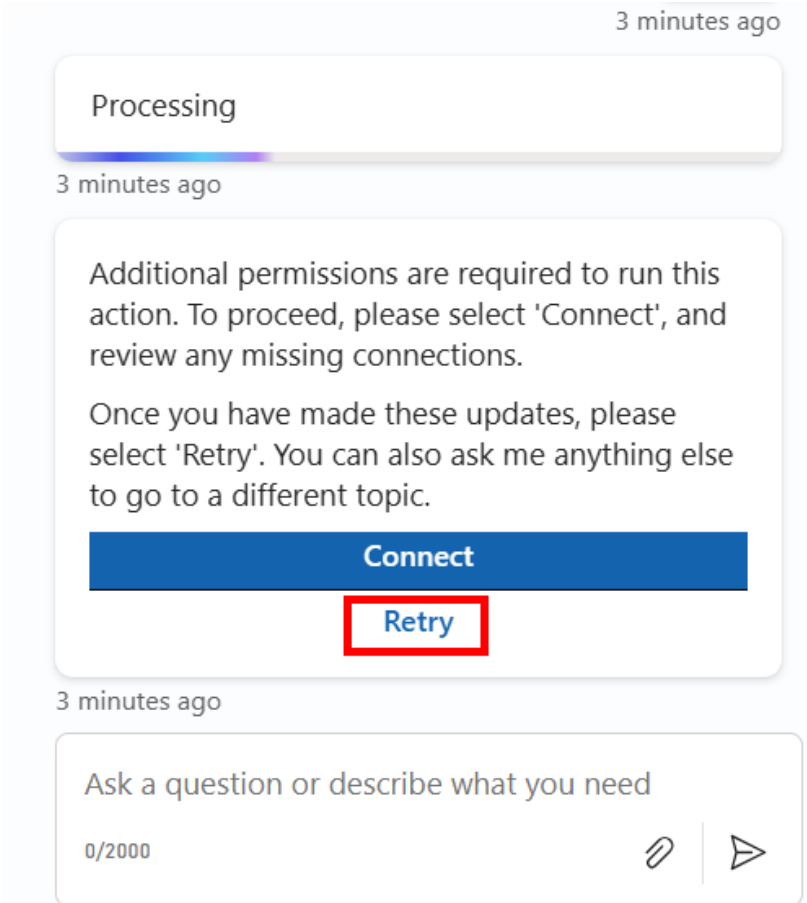
Expired

Not Connected

Stale

<input type="checkbox"/>	Name	Used By	Status
<input type="checkbox"/>	<div>Excel Online (Business)</div> <div>Excel Online (Business) connector lets you work with Excel files in document libraries suppo...</div>	1 action	<div>Not Connected</div> <div>Connect</div>
<input type="checkbox"/>	<div>Planner</div> <div>Microsoft Planner lets you easily bring together teams, tasks, documents, and conversation...</div>	1 action	<div>Not Connected</div> <div>Connect</div>

22. Close the “Manage your connection” tab once you established all connections and press “Retry” in the test your agent pane.



23. Select your laptop/hardware of choice by stating it in your next prompt in the test your agent pane.

24. Next, check the Planner for the created device order.

In case the agent does not orchestrate according to your preferred behavior, feel free to make adjustments to the instructions as necessary.