



Microsoft Power Virtual Agents in a Day Preview

Lab 02: Build your first chatbot Hands-on Lab Step-by-Step

November 2022

PVAID Preview

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Power Virtual Agents

This lab is subject to the Terms of Use on page 20 of this document.

Goals for this lab

After this lab you will be able to:

- Create a new chatbot using the Unified Authoring canvas
 - Become familiar with the User Interface (UI) for PVA Preview
 - Create your first custom topic and add content to the topic
 - Test your bot
 - Publish your bot to the demo website
- The time to complete this lab is **[40]** minutes.

Scenario: Contoso Coffee customer support

You can use the following scenario throughout the labs to build your bot around. You can also use your own scenarios if you so wish.

Welcome to Contoso Coffee! At Contoso Coffee, we are passionate about providing efficient, environmentally sustainable, and innovative coffee products, barista experiences, and services. With you as our newest Customer Support team member, we have no doubt that together we will reach higher levels of success and innovation!

Consumer sentiment is at an all-time high, but with increasing competition, it is more important than ever to minimize costs and focus on customer satisfaction so that we can maintain our competitive edge in having a robust customer base, while continuing to invest back into the customer experience and maximize our customer lifetime value.

Contoso Coffee are very interested in providing customers with the capability of asking questions about their order status, delivery time, and even the ability to be able to modify their order and cancel it. This will unlock a lot of capability for their call center staff and be able to help with deflecting common questions that take a lot of time on the phone, making both customers and agents happier and have more time. They also highlighted briefly that in B2B scenarios where they often work with other manufacturers, they would like to provide access for those partners the ability to view and ask questions around latest invoices or payments or be escalated to live agents if they are in a specific tier of manufacturer.

Customer support costs have continued to rise as the customer base has grown, and the company can no longer continue to expand the Customer Support team. You have been tasked with finding a solution using Power Virtual Agents.

Prerequisites

Please note that some labs, especially later labs, do reference previous labs in reference to capabilities and previous tasks. The labs have been designed so as long you have access to a Power Virtual Agent trial which has Unified Authoring Preview available, you can get started from any lab without having to complete the previous module to be able to move forward.

For Lab 02 – Creating your first chatbot, we recommend you completing the following labs to get the best experience:

- Lab 00 – Overview
- Lab 01 – Planning your first chatbot

Preview Material Notice

Please note that this material is provided is under continuous development and is targeted at the Preview version of Power Virtual Agents, Unified Authoring, released in public preview on November 10th. Please expect the product to change as the preview period continues and so some of the screenshots or text descriptions may not be what you experience in the latest version of preview in your environment.

We would appreciate your feedback on Power Virtual Agents Unified Authoring 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/pvaiadpreviewsurvey> 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!

Exercise 1: Build your first chatbot

Power Virtual Agents helps you quickly and easily create AI-powered solutions to some of your customer support challenges – no developers or data scientists required.

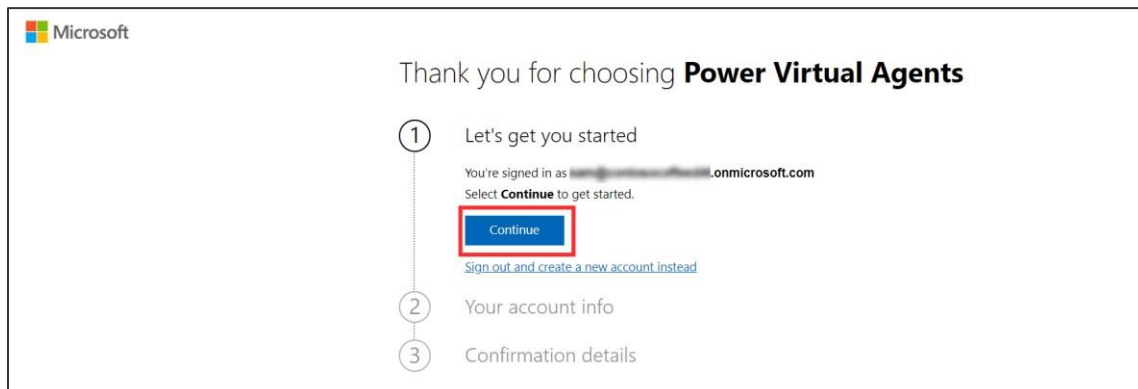
In this exercise, you will go through the steps of creating, deploying, and testing your first bot using a topic you planned in Lab 01 – Planning your first bot. If you have not completed that Lab, you can use the demo material in the Microsoft Excel provided in the Lab Materials.

Task 1: Sign in to create a bot

1. Go to <https://powervirtualagents.microsoft.com/> and click **Sign in**. Sign in with the lab credentials you have been given by your instructor. (**Or with your own work or school account** if you are not working with an instructor)

Note, your account may already have been set up and if you do not see the screens as shown below, you can skip to step 6.

2. Click **Continue**.



3. Click **Get started**.

1 Setting up your account

2 Your account info

Hi **Sam**.
We need just a little more information before you get started

Your country or region
United States

I understand that Microsoft may contact me about my trial.

I will receive personalized information, tips and offers about Solutions for Businesses and Organizations and other Microsoft products and services. [Privacy Statement](#).

☐ I would like Microsoft to share my information with select partners so I can receive relevant information about their products and services. To learn more, view the [Privacy Statement](#).

By choosing **Get started**, you agree to our [terms and conditions](#) and [privacy statement](#).

Get started

3 Confirmation details

4. Click Get Started.

Thank you for choosing **Power Virtual Agents**

1 Setting up your account

2 Thanks for creating an account with us, Sam

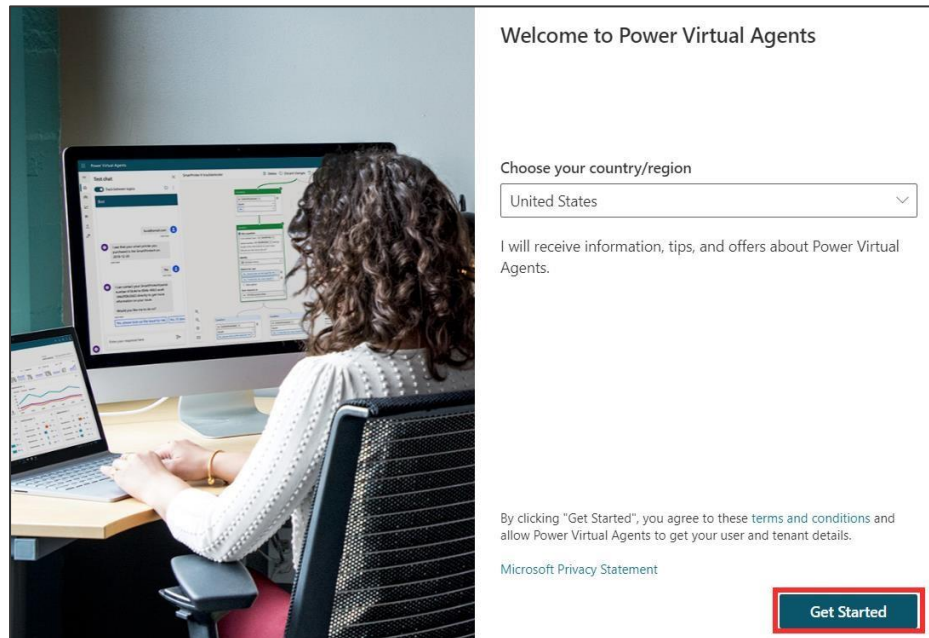
3 Confirmation details

Thanks for signing up.

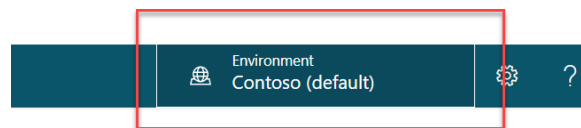
Your user ID is .

Get Started

5. Select your region/country and click **Get Started**.

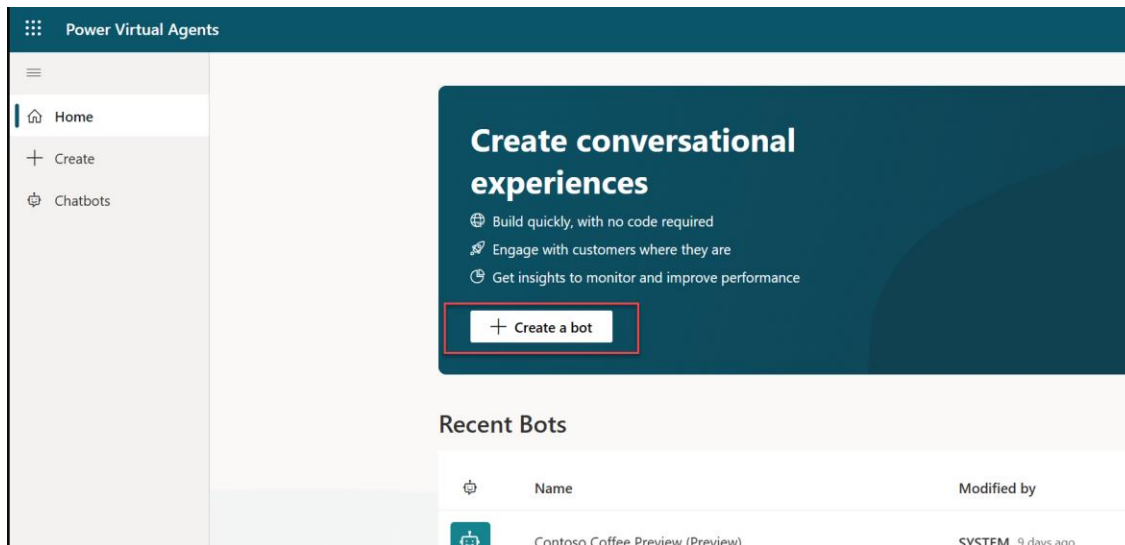


6. You should be redirected to powerva.microsoft.com. If not, navigate to that URL which is the maker environment for Power Virtual Agents. In the top right-hand corner, there is an Environment Selector. A bot environment is where your organization will store, manage, and share the bot, business data, apps, and Power Automate flows. You can select the Environment **to display the bots within that Environment**.

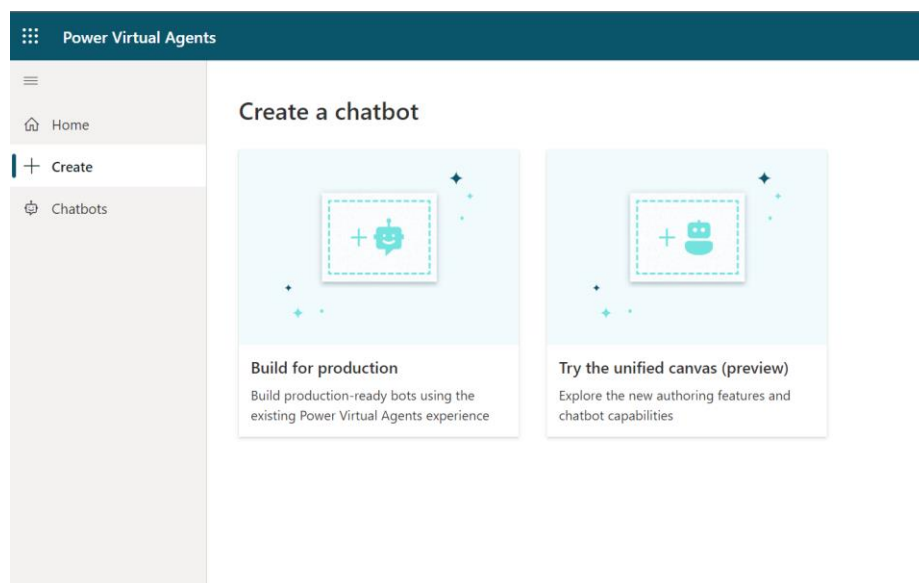


4. If you are working with an instructor, confirm with your instructor the environment to use. If you are not working with an instructor, and for example, are using your own environment, for the purposes of this course you can use the Default Environment or if your tenant allows, create your own environment to use in admin.powerapps.com.

5. With your environment selected, click on 'Home' and select 'Create a Bot' in the home screen as shown in the screenshot below.



6. You will be asked which chatbot you want to create. Click **'Try the unified canvas (preview)'**



Name your bot in the format User # - Contoso Customer Service – e.g. **User 1 Contoso Customer Service**. Select English (US) as the **Language** (*there will only be one language available at time of writing for preview*),



Create a chatbot (preview)

Name your bot* 

ex. Appointment Bot


What language will your bot speak?* 


English (US)

Creating a chatbot (preview) is currently only available in English

Signed in as PVABotUser102@PVAbot.onmicrosoft... [Sign out](#) [Create](#)

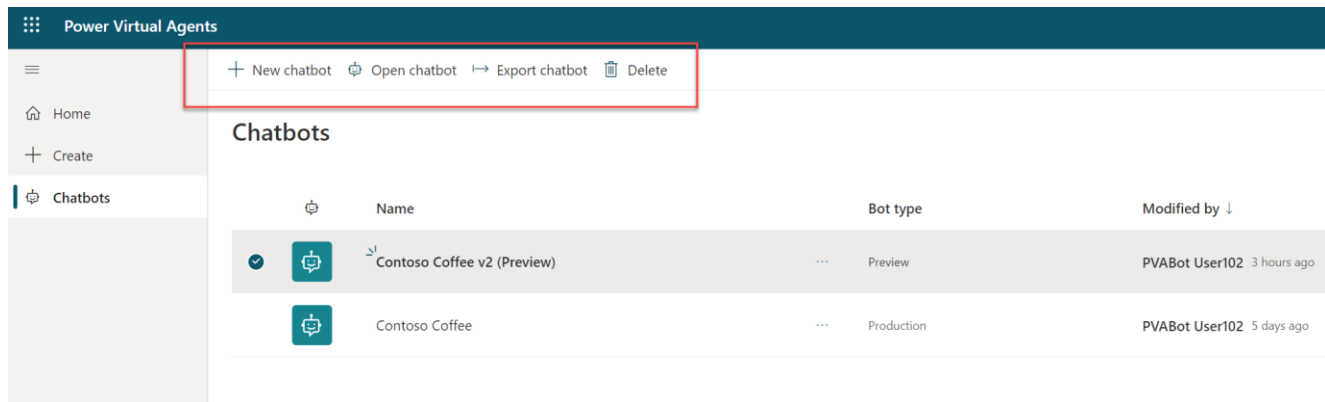
Note: Once you click **Create**, the process of creating the first bot within a new environment can take up to 15 minutes. Subsequent bots will be created much faster.

After you create your bot, it appears in the list under the chatbot menu item  Chatbots on the left-hand navigation bar.

Pro Tip: If you've created a bot in this environment before, to create another bot select the chatbot menu item  Chatbots on the navigation bar, and then select **Create bot**.

Second Pro Tip: In the 'Chatbots' menu area, this is brand new for Unified Authoring. You can now see which version your chatbot is on, for example production and preview by navigating to this chatbot menu.

7. In the 'Chatbots' menu, this is where you can select from your chatbots. By selecting a chatbot, you can see the contextual menu appears, highlighted in the screenshot below, giving you access to controls like opening the chatbot, export the chatbot and delete. You can also click the name of the chatbot, and it will open the bot.

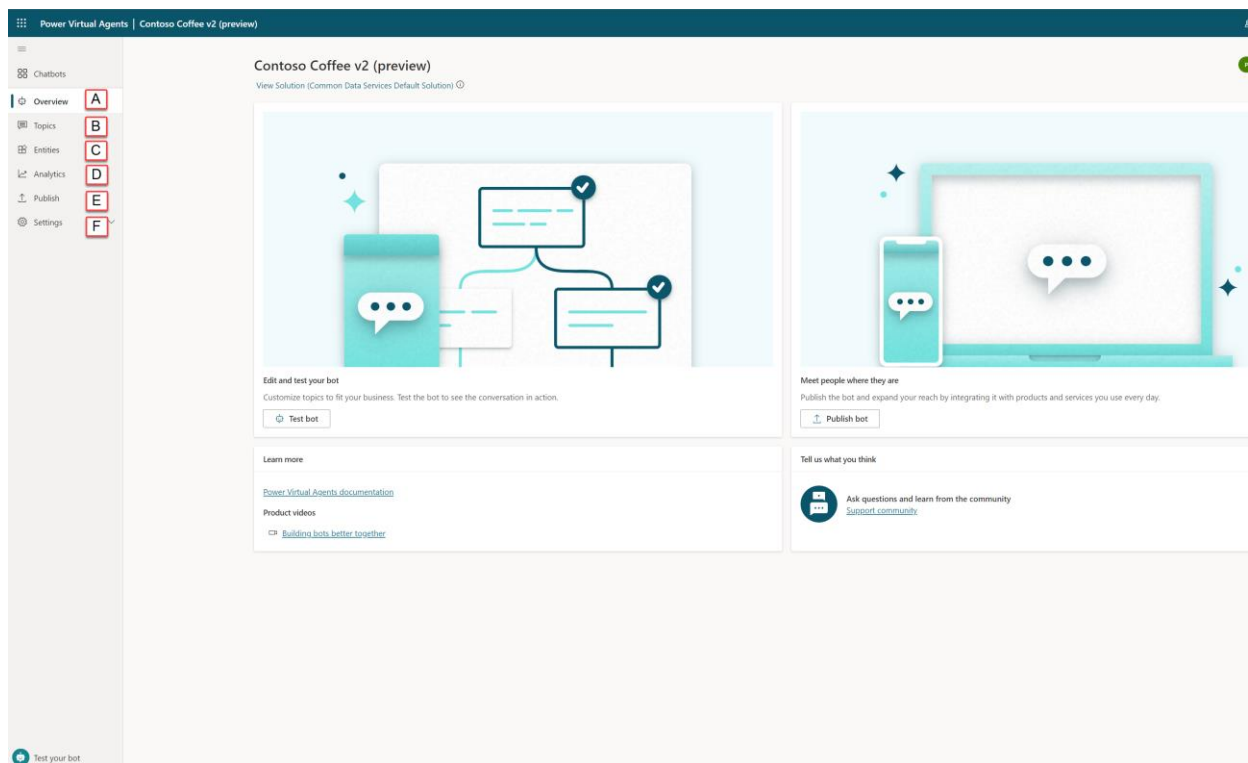


Pro Tip: In the 'Chatbots' menu area, a chatbot is not open, and so you cannot see the extended menu options that you may be familiar with when you have a chatbot open. See in the screenshot above that you only can see the menu items 'Home', 'Create' and 'Chatbots'.

Task 2: Take a quick tour of the user interface

Power Virtual Agents preview makes it easy to build basic to advanced bots. Let's review the six main pages of the maker experience for Power Virtual Agents.

Before we do this, we already covered the 'Chatbot' area in the section above, which will always be at the top of the screen above these six main options available once a bot has been selected.

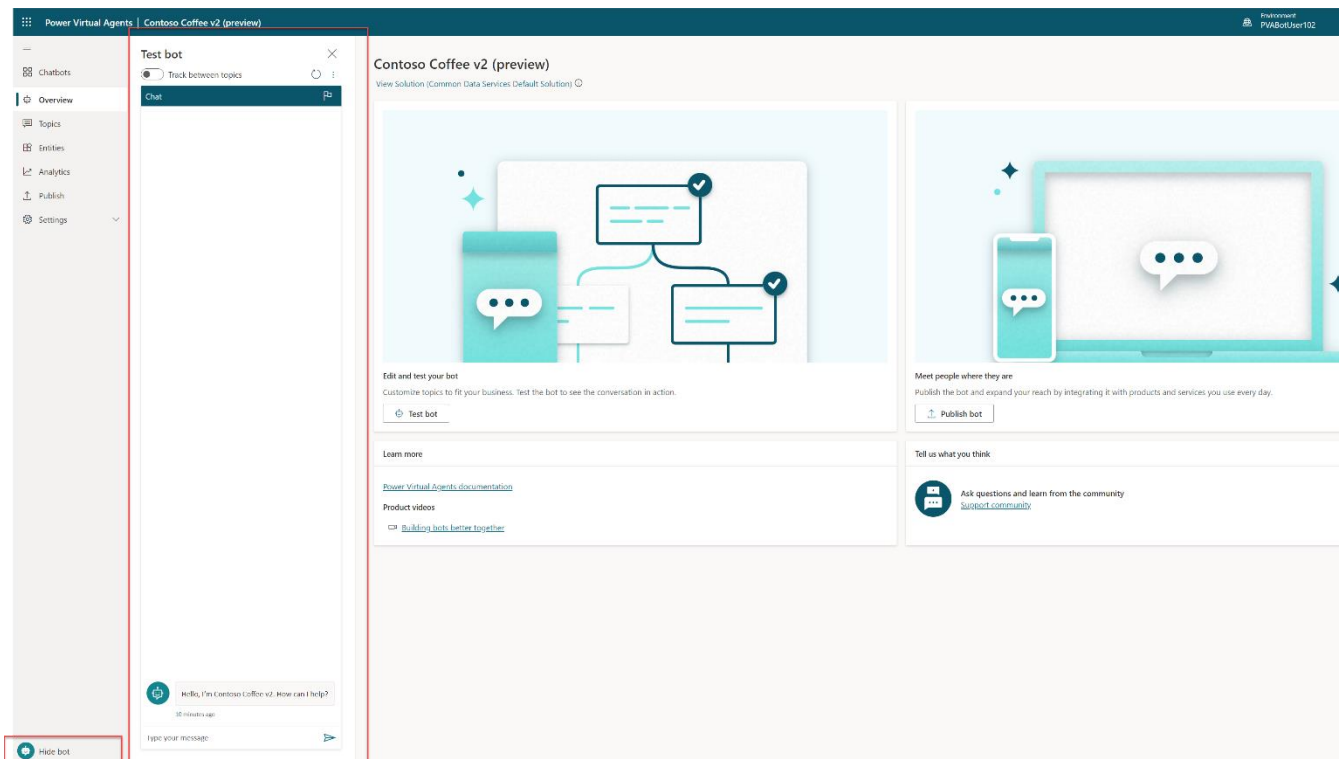


- A. **Overview** page: Displays your homepage including links to Test your bot, publish bot and links to documentation
- B. **Topics** page: Where you view, delete, create and edit conversation topics.
- C. **Entities** page: Where you view and create entities that Power Virtual Agents can recognize in customer conversations and load into variables.
- D. **Analytics** page: Where you view metrics to monitor how well your bot is serving your customers and find ways improve it.
- E. **Publish** page: Where you can publish the bot for team testing or to engage with your customers.
- F. **Settings** page: Where you can select General to change your chatbots name, image and get data like environment ID, Tenant ID and Bot app ID. **Channels** (such as your website or Facebook) you want customers to interact with your bot, **Agent Transfer** to configure connecting Power Virtual Agents to engagement hubs, configure **Security** to let your users sign into their account with you when using the bot, and extend your bot's conversational capabilities **AI Capabilities**

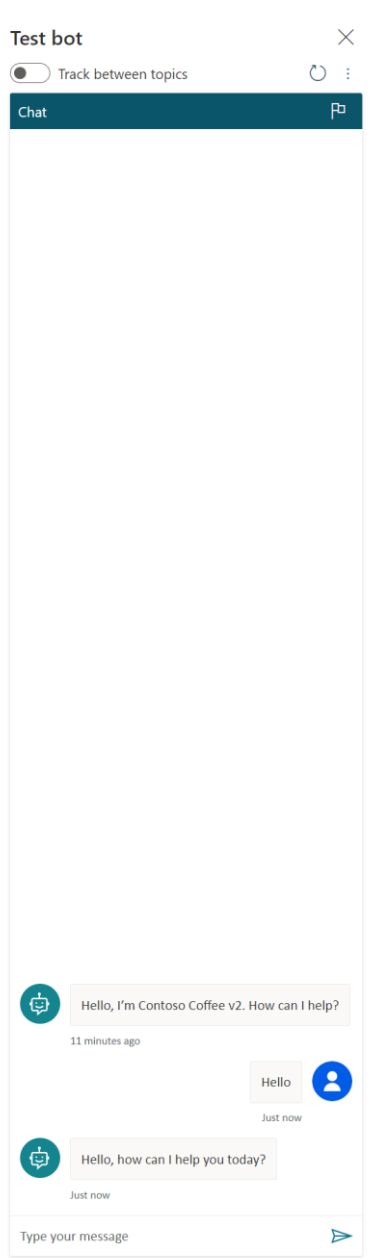
Exercise 2: Try out a conversation in the Test Bot pane (Hello!)

Let's try out the bot using one of the 4 pre-built lessons included when you create a new bot.

1. To show the Test bot, in the bottom left corner of the screen, click Test your bot. (If the button says, "Hide bot", then your Test bot is already showing.)



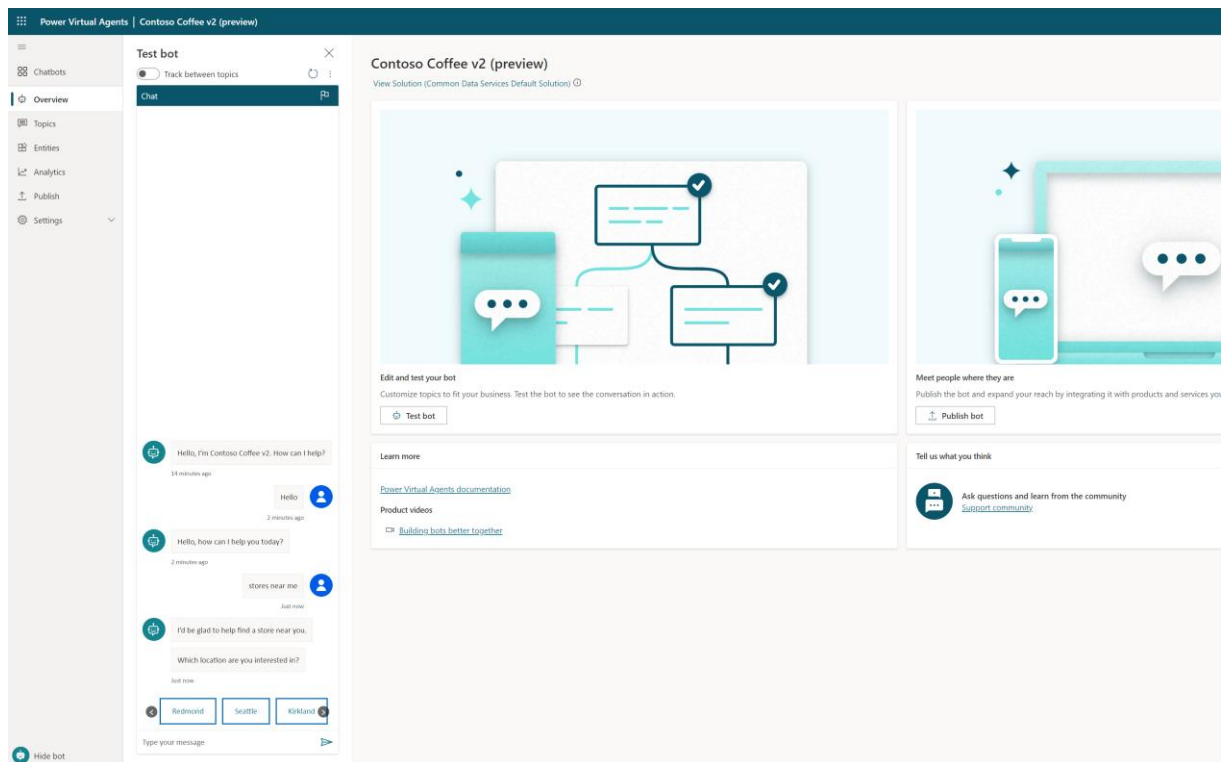
2. You will see in the Test bot pane; a message has already been sent to you from the bot. This message was sent from the **Conversation Start topic** which begins automatically. At the **Type your message** prompt at the bottom of the Test bot, type: **Hello** and then click the **Send** ➤ button.



The bot will offer a greeting in the Test bot pane.

1. In the Test bot, enter the following message and press Send: **'stores near me'**. This will trigger one of the pre-built topics (Lesson 2 Topic) in the bot, and the bot will ask you what location you are interested in.

- Now, in the test chat, pick the store location you want by clicking on it. You will see it responds with specific information based on your selection.



Now you have reviewed an existing topic, let's complete the next exercise to create a brand-new topic.

Exercise 3: Create your first topic

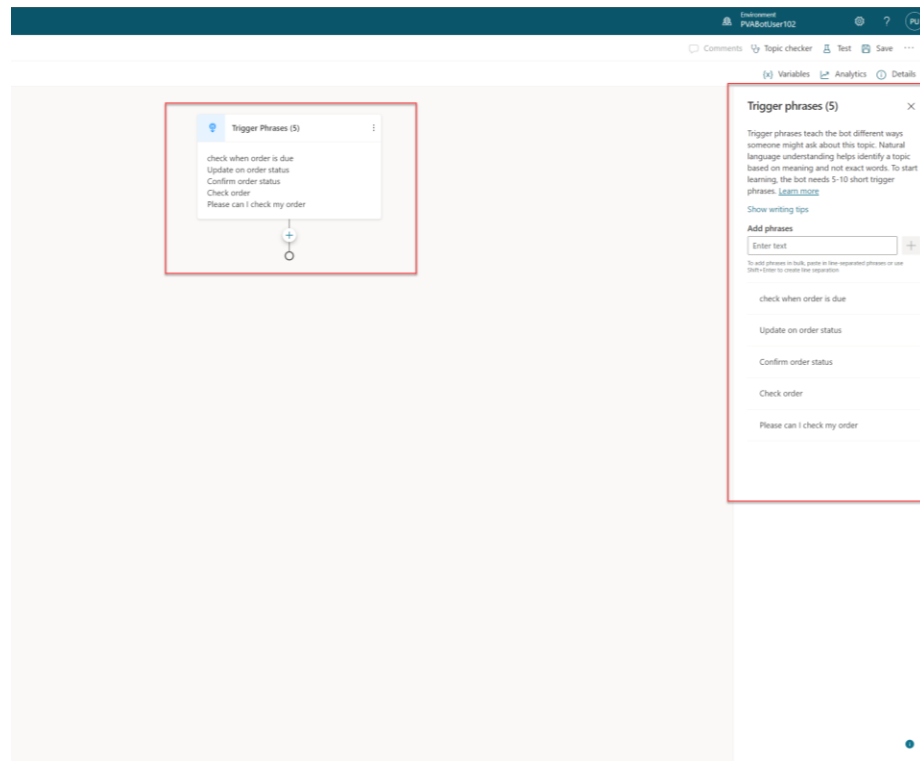
Let's take the planning completed from Lab 01 to create your first topic. This will not be a full topic, just a basic topic to create a simple experience, then test and publish to a demo website. The next lab will go into more detail on the authoring capabilities available to expand and build on the topic you create in this exercise.

If you have not completed the Lab 01 exercises, that is okay – you can use the suggested examples in the planning sheet provided in the Power Virtual Agent in a Day materials to move along in the tasks.

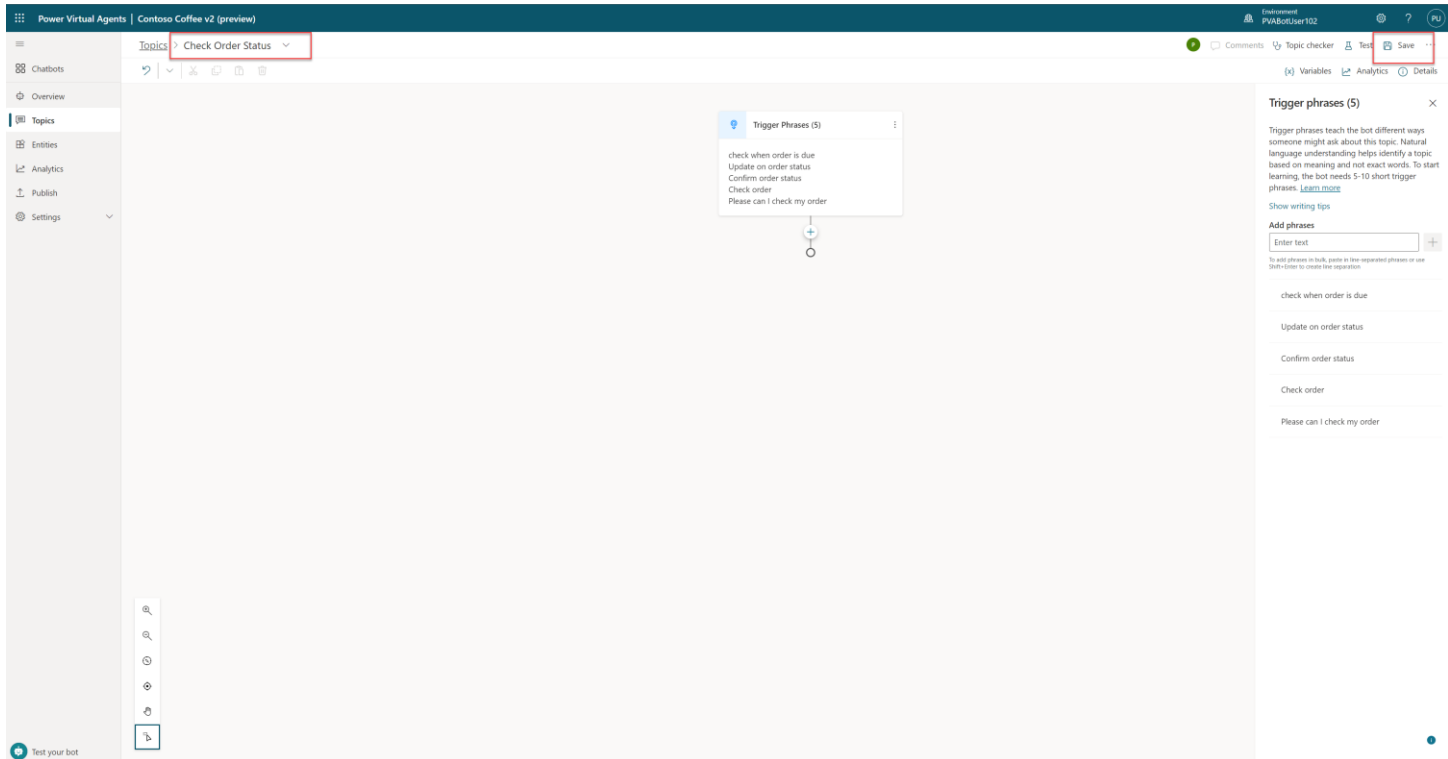
Task 1: Make a new topic

- Click Topics on the left-hand side menu.
- Click New Topic
- Enter at least 5 phrases that you created in your planning document. If you are stuck, use the sample phrases included in the requirements gathering template as part of this material. These phrases are added on the right-hand

side panel (as shown in the screenshot below) and you will begin to notice the phrases are also visible in the 'Trigger Phrases' node as well.

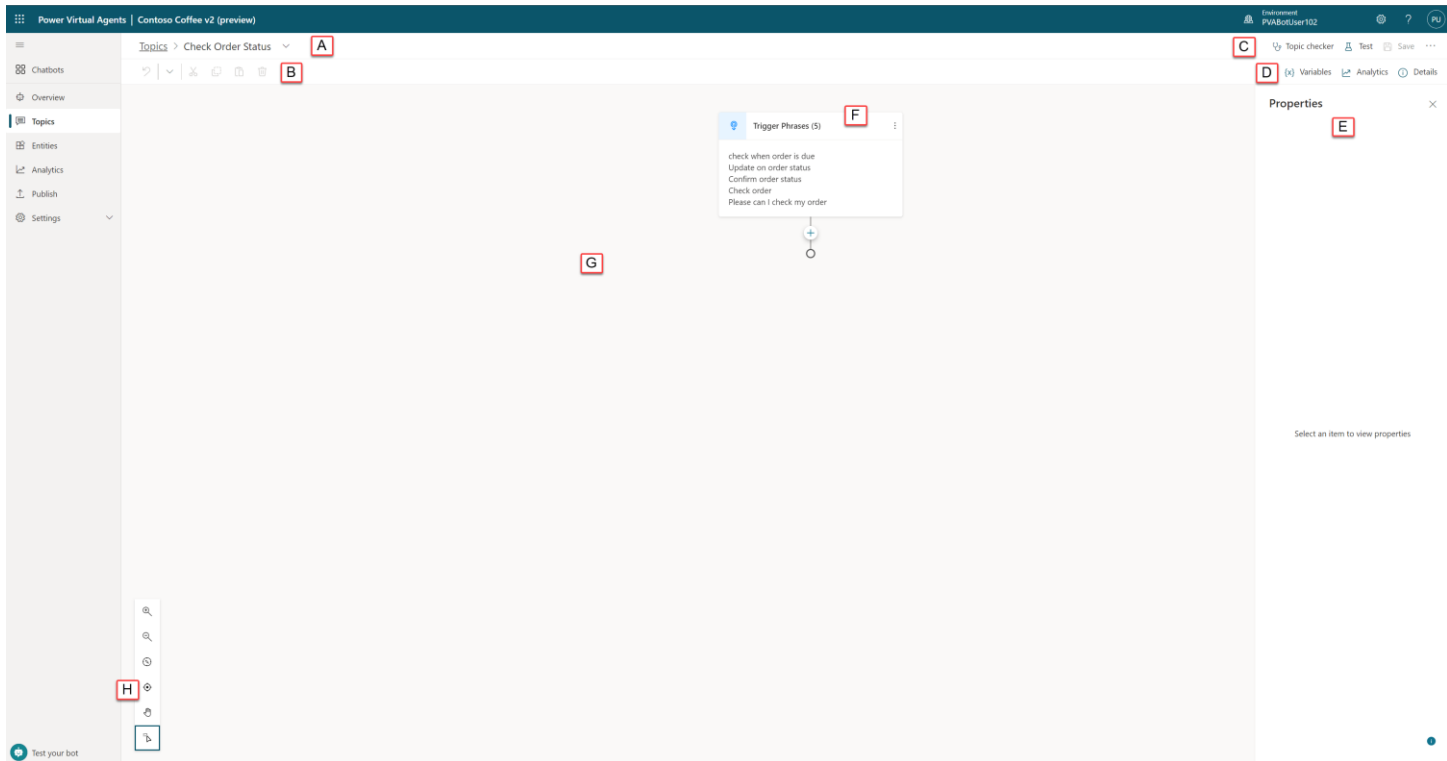


4. Name your topic, for example, '**Check Order Status**' and click 'Save'



Task 2: Review the Topic UI

1. Now you have created your first topic, albeit without any content except trigger phrases, now is a good time to take a look at the authoring User Interface (UI) to become more familiar with it.



- A. Topic Title:** The name of the topic you are currently authoring and is visible in the Topics page.
- B. Productivity Bar:** Where you have access to productivity tools like copy and paste which is available in Preview
- C. Topic Checker, Test and Save buttons:** Include the **Topic Checker** which can be run anytime from the authoring canvas to check if there are any errors in your topic that the platform can detect , example include missing messages in message nodes. Test opens the bot testing panel on the left side of the screen, and the save icon which is available when there are unsaved changes, saves the topic. There is an extended menu '...' button available here as well, which opens the code editor in Power Virtual Agents preview, allowing users to switch from the graphical view and the code view seamlessly
- D. Variables, Analytics and Topic Details buttons:** Provide three areas to access all the **variables** available in this topic and globally, **analytics** shows key metrics that are tracked within a time period including sessions and abandon rate, and the **details** menu allows you to change the name and description of the topic, and turn it on or off.
- E. Properties:** Are an extended menu item that allows for additional information or control depending on what is selected. Some items will not have any extended options and so this area can sometimes be empty, or for example selecting a question node's properties, additional options become available in this section such as 'Question Behaviour'
- F. Nodes:** Are what are referred to as the items within an authoring canvas in Power Virtual Agents and often have a type which drives what options are available and required. Examples include the message node, question node, or topic node.

- G. The Authoring Canvas:** Where you would author your topic and is referred to a canvas due to the empty space that is gives you to build and connect nodes. It may look empty to begin with but as soon as you start adding nodes such as conditions, it will fill up fast!
- H. Authoring Canvas Controls:** What can be used to navigate the authoring canvas, which can become large for extensive topics. Controls included are zoom, grab and selection.


Task 3: Add content to your Topic

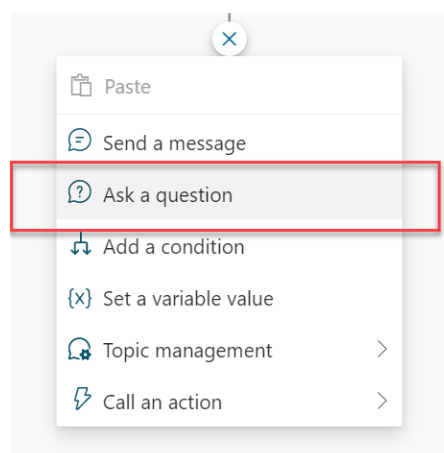
This Lab won't cover adding a large amount of content to your topic, only a single question node, message node and topic redirection to become familiar with the process of creating a topic, testing and publishing in Power Virtual Agents.

Fundamental Knowledge: Understand the Question Node

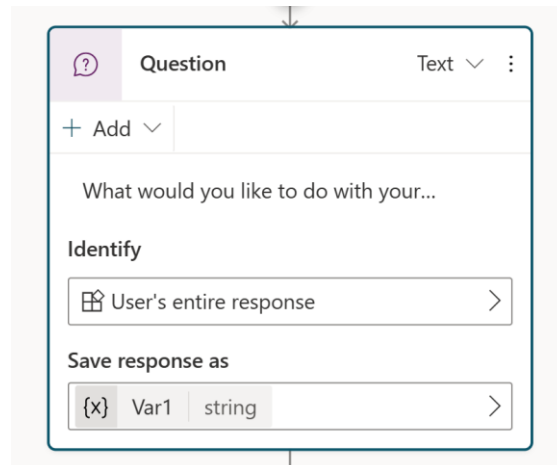
The Question Node should be used where a bot author is expecting a response from the user of the bot and wishes to do something based on that information. The user response is stored in a variable and question nodes can also use entities and slot filling features, both covered later in this lab.

The question node uses many of the functions that a Message node does, such as rich text, speech authoring, and rich text response types such images, videos, and adaptive cards.

1. In the topic you have open from the previous task, click on the 'add node' button in the canvas, , selecting '**Ask a Question**' to add a new question node. Type 'What would you like to do with your order?' ensure 'identify' is set to 'User's entire response'. This is asking the question after the topic is triggered what they want to do. *You will see in Lab 3 we will extend this to use Entities and Slot Filling!*

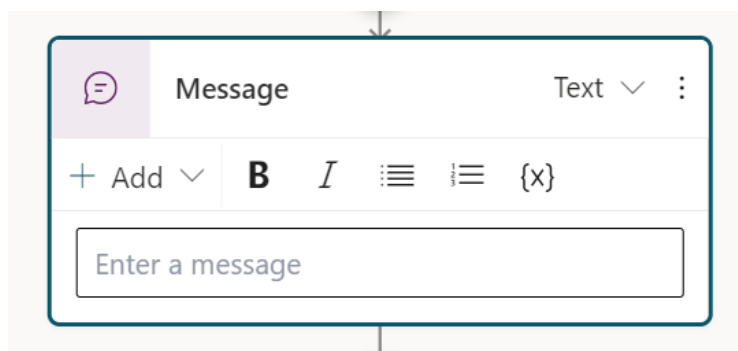


2. Select 'Users entire response' where you see the heading 'Identify' to be able to store the entire response sent by the customer. In this scenario, we won't use entities or slot filling and instead save the response as the out of the box variable the system generates, so you don't need to change anything else (Keep the Variable Name as 'Var1')

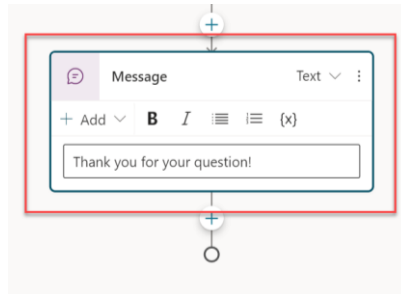


Fundamental Knowledge: Understanding the Message Node

The 'Message' node is used to display a message to the user. This can be a simple message based on the topic of the conversation. It is important to recognize in direct contrast to the Question Node that the Message node does not expect or store an answer from the user. The message node has rich text options that can be displayed in text, and variables can also be used within message nodes in the body of text displayed to the user, which are dynamic based on the data stored within them. This allows messages to be more personal, such as 'Hello {name}, I can get those order details for you, one moment'. Variables can also store data to perform automation or calculations on them. We cover variables in more depth later in the labs.

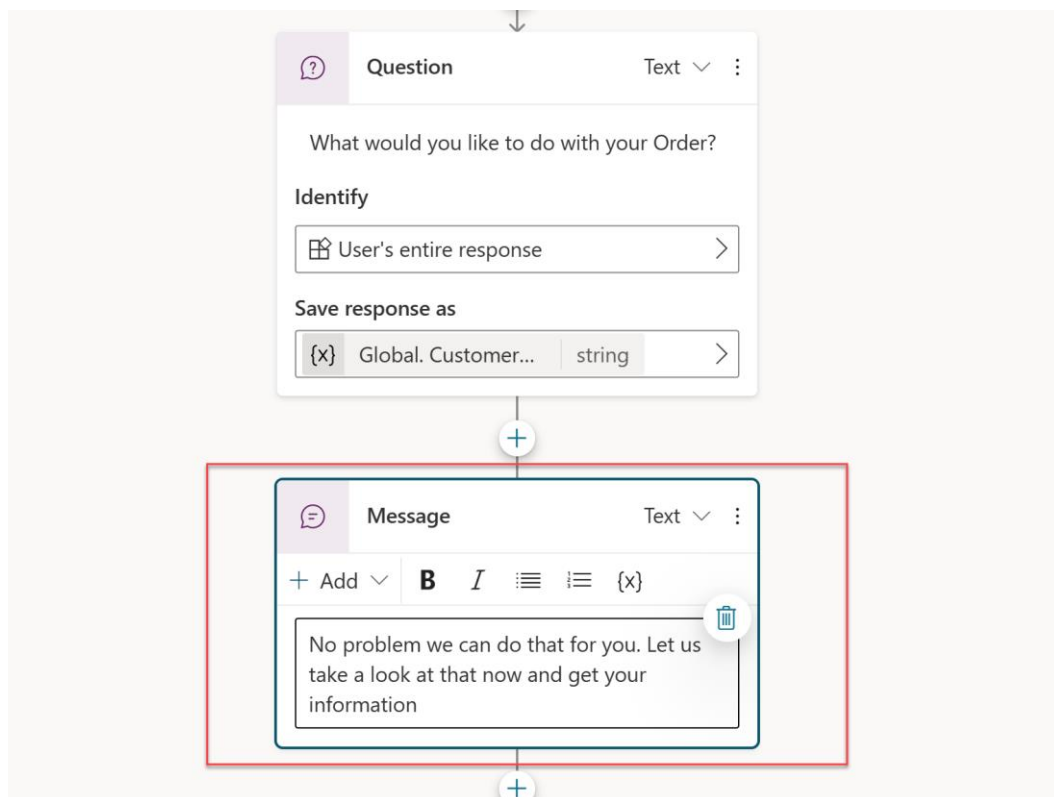


3. Next, add an additional node. Click the 'add node' + button and select 'Send a message' and enter a simple message acknowledging the customer's question e.g., 'Thank you for your question'.



4. Now, let's end the conversation for the customer in this demo scenario. Select the '+' in the authoring canvas to add a new node, click '**Topic Management**' and select '**End Conversation**'. This will end the conversation.

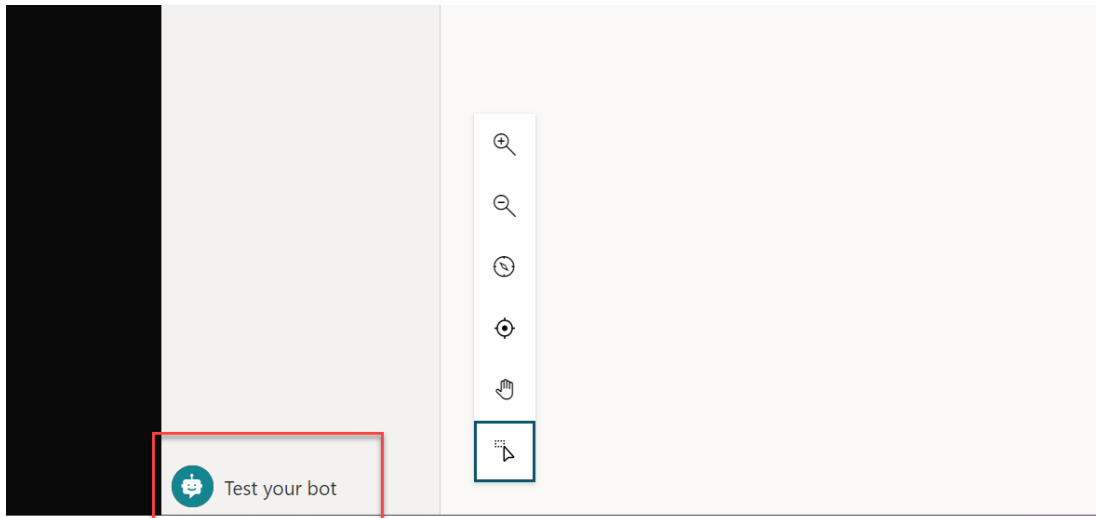
There are other ways to end a conversation, such as directing to a feedback topic or transferring the conversation, but they will not be covered in this lab.



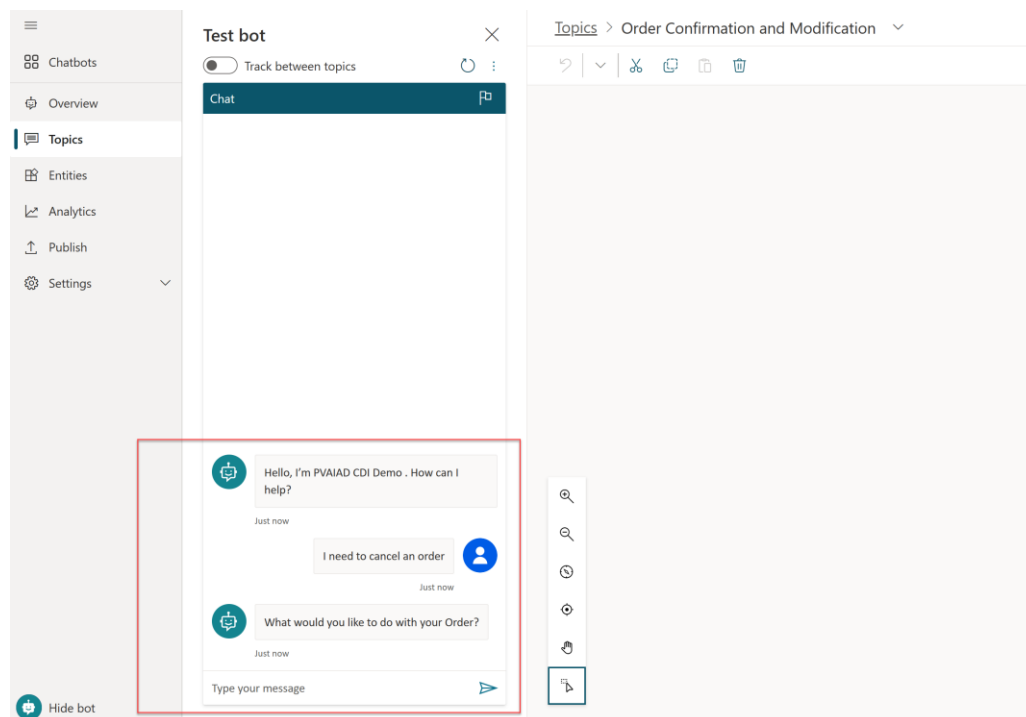
Task 3: Testing and Publishing your bot

Now let's test the topic you just created in the test pane first and then publish those changes.

1. Click the **Test Your Bot** button at the bottom left of the screen to open the testing panel



2. You will notice the **Conversation Start** message has appeared and your bot has started a conversation. In response, enter a trigger phrase for the topic you have just created

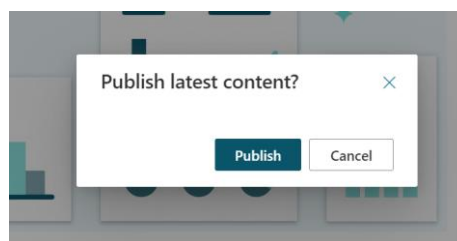
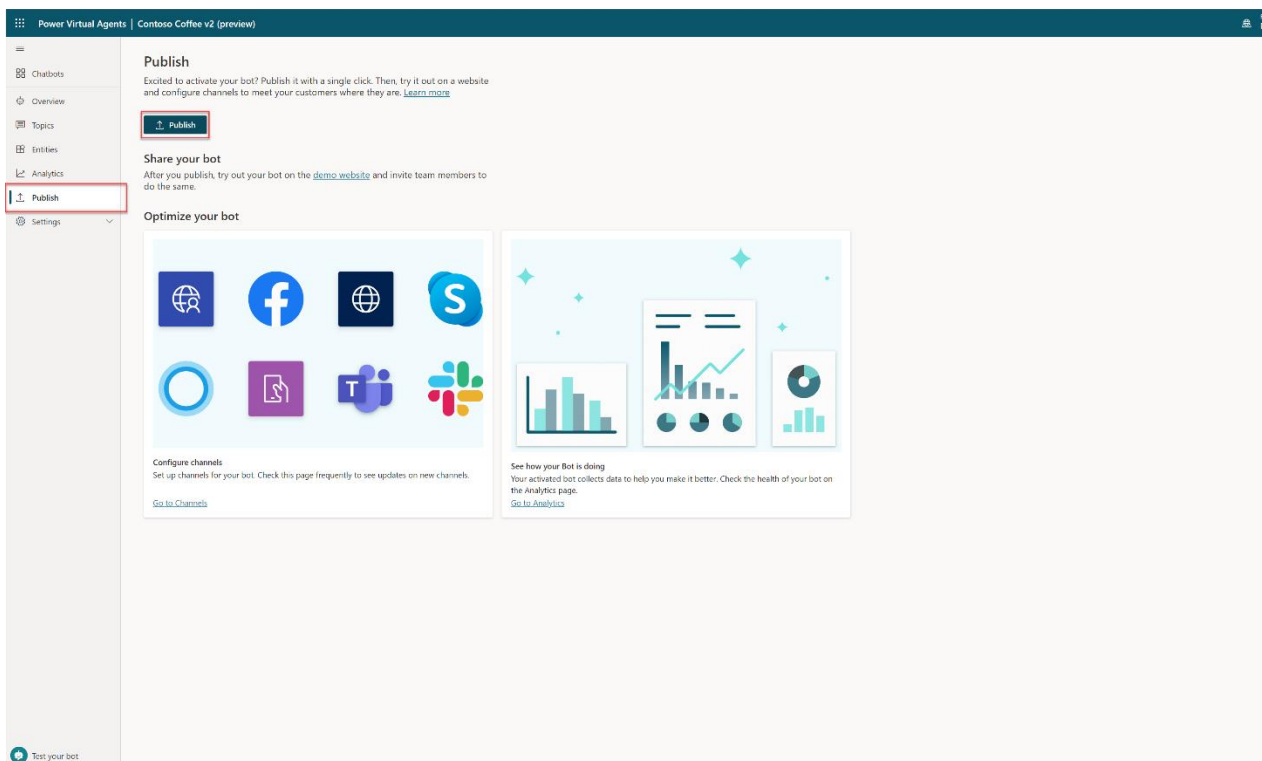


3. You will see your message appear and then the bot will end the conversation, as instructed by the topic designer in the previous steps. Now the topic is working as it should, it is time to publish your bot.

Exercise 4: Publish your bot to the demo site for testing

Power Virtual Agents provides a demo website so that you can invite anyone to test your bot by sending them the URL. This demo website is useful to gather feedback to improve the bot content before you activate the bot for your real customers.

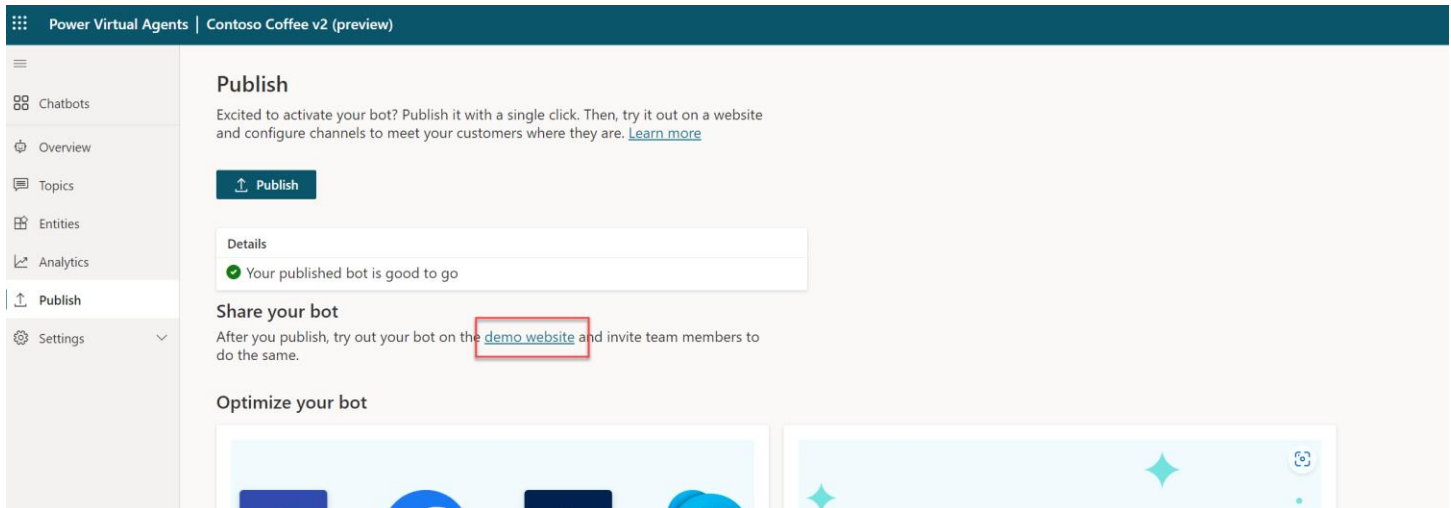
1. In Power Virtual Agents, navigate to the **Publish** tab on the left navigation pane.
2. Click **Publish** to push the latest bot topics to the demo website. You will need to do this before you use the demo site the first time and after you make changes to the bot topics that you want people to test on the demo website. (When you've created your real chatbot, you will Publish each time you want to make updated topics available to your customers.)



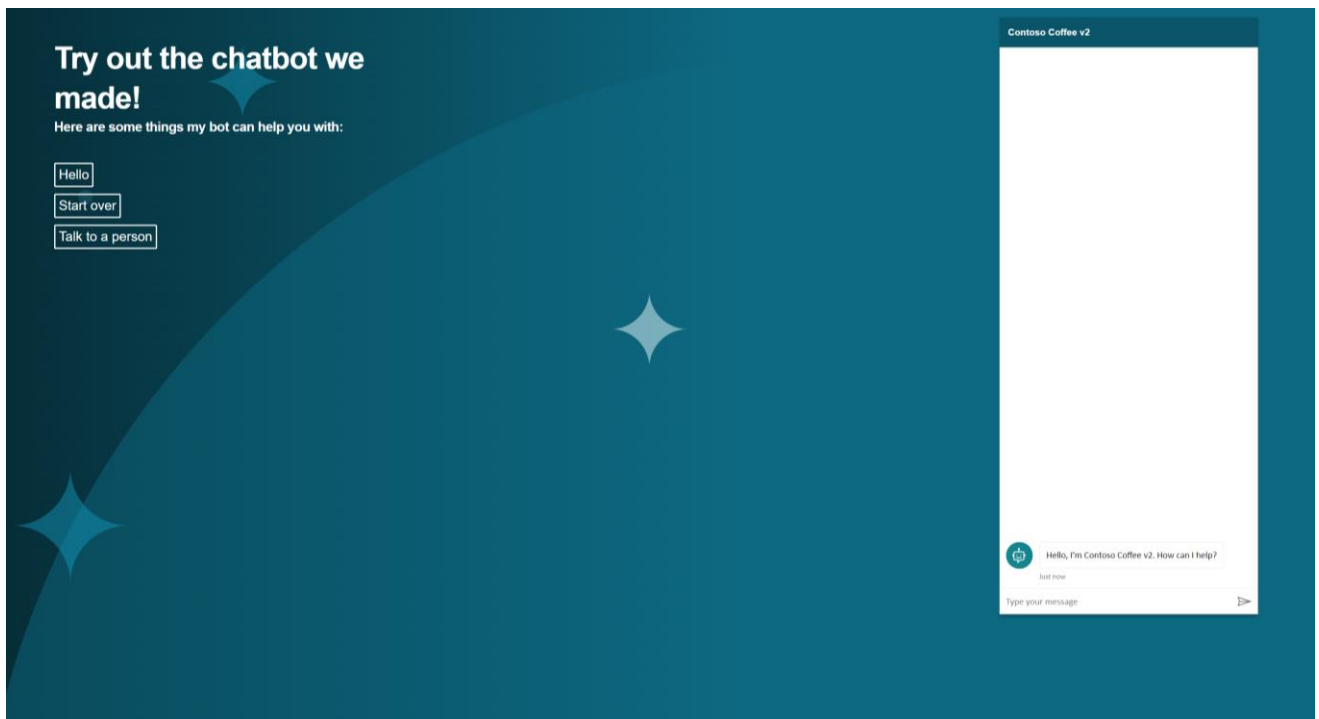
The publishing process will check for errors in the bot topics whose **Status is On**. Publication should take only a few minutes.

Once you have selected You will see a **green banner notification** at the top of the screen when publishing is complete.

3. Click the link for the **demo website** as shown in the screenshot below.



4. When the demo site window opens, you can interact with the bot canvas by typing at the **Type your message** prompt or by selecting a starter phrase from the provided options.



5. You can share the URL of the **demo website** with your team.

Congratulations! You have built and published your first chatbot!

Summary

Thank you for completing Lab 02 'Creating your first chatbot'. You have successfully:

- Accessed your Power Virtual Agent Preview Bot which uses the latest Unified Authoring Canvas
- Reviewed the new User Interface (UI) and became familiar with how to navigate the bot maker experience
- Created your first custom topic
- Added nodes to your first custom topic
- Tested your bot
- Published your bot to the demo website

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/pvaiadpreviewsurvey> 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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