

# Custom engine agent with Copilot Studio

## Setup Azure

### Step 1: Create Azure OpenAI service resource

- Open the browser of your choice and navigate to Azure Portal.
- Select Create a resource, then search for Azure OpenAI. Select the Azure OpenAI service and then Create.
- Fill out the following details and select Next:
- Subscription: The Azure subscription for your Azure OpenAI Service
- Resource group: The Azure resource group to contain your Azure OpenAI resource. You can create a new group or use a pre-existing group.
- Region: The location of your instance. (Make sure that the deployment model is available in your region).
- Name: A descriptive name for your Azure OpenAI Service resource, such as MyOpenAIResource.
- Pricing Tier: The pricing tier for the resource. Currently, only the Standard tier is available for the Azure OpenAI Service.
- Select the network configuration of your choice and select Next.
- Leave the Tags section as default and select Next.
- Finally, review your Azure OpenAI service details and select Create.

Once your Azure OpenAI service is created successfully, navigate to your resource, select Keys and Endpoint from the left side panel. Copy and save KEY 1 and Endpoint that will be required later in Exercise 2.

### Step 2: Create a deployment model

In your Azure OpenAI service, click **Open Azure AI Foundry Portal**. This will direct you to Azure AI Foundry where you can create your deployment model.

In Azure AI Foundry, select **Deployments** tab, **Deploy model** and then **Deploy base model**. Search for the model you prefer to use such as gpt-4 and **Confirm**. Fill out the following details and select **Deploy**:

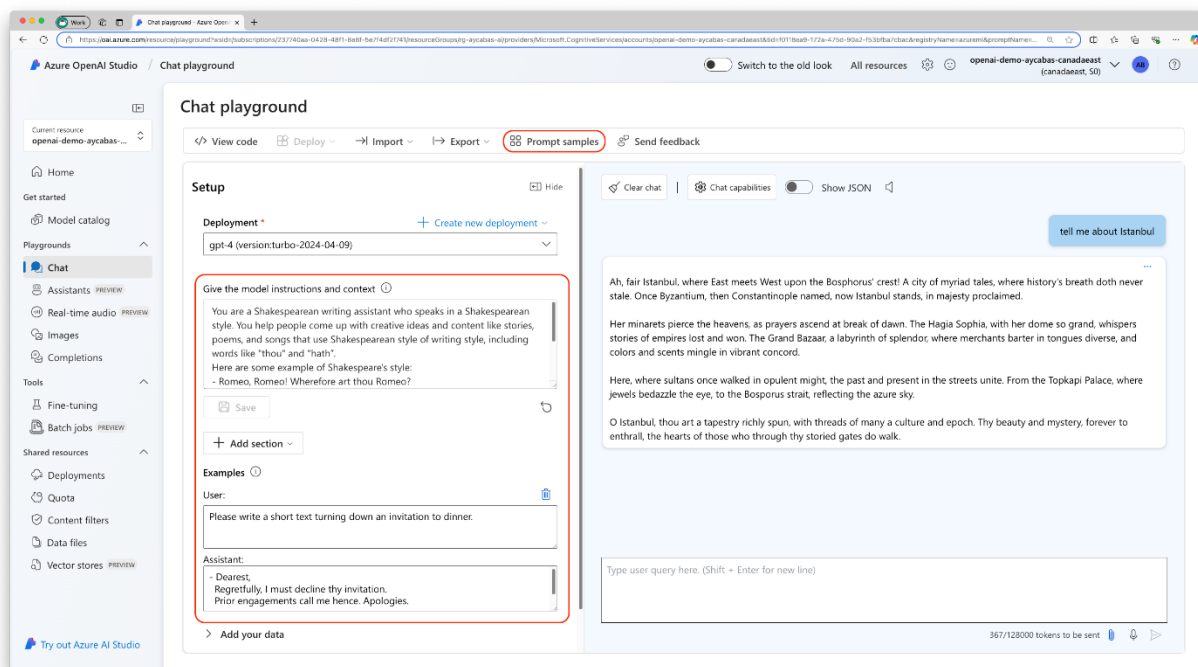
- **Deployment name:** Recommended to use the same name with the selected deployment model, such as gpt-4.

- **Select a model:** Select a model, gpt-4 is recommended.
- **Deployment type:** Global Standard.

### Tip: Handling no quota available message

Once your model is successfully created, select **Open in playground**, and test your model by selecting **Prompt samples** from the top and choose one of the prompts available.

For example, choose "Shakespearean Writing Assistant" and select **Use prompt**. and ask questions such as "tell me about Istanbul". You'll be amazed by the descriptive and poetic style of the response 🙌.



## Create Custom Engine Agent

Step 1: Use Teams Toolkit to create a new custom engine agent

1. Open Teams Toolkit on Visual Studio Code and select **Create a New App > Custom Engine Agent > Basic AI Chatbot**.
2. Select **TypeScript** as a programming language choice and **Azure OpenAI** as Large Language model of your choice.
  - a. Paste the Azure OpenAI key and press enter.

- b. Paste the Azure OpenAI endpoint and press enter. (Endpoint shouldn't include forward slash at the end of its URL.)
  - c. Type Azure OpenAI deployment model name and press enter.
3. Select a folder for your project root.
4. Provide a name for your project such as LearningCoach and press enter.

After providing all the details mentioned above, your project will be scaffolded successfully in seconds.

## Step 2: Customize prompt and test the app

Prompts are essential for interacting with AI language models and directing their behavior. They serve as the inputs or questions we provide to the model to obtain specific responses. By crafting prompts carefully, we can guide the AI to generate desired outputs. Let's customize the prompt of our custom engine agent and define the behavior Learning Coach!

In your project folder, navigate to `src/prompts/chat/skprompt.txt` and replace the existing text with the following prompt from [copilot-pro-dev-samples/samples/da-LearningCoach/appPackage/instruction.txt at main · pnp/copilot-pro-dev-samples · GitHub](https://github.com/microsoft/copilot-pro-dev-samples/tree/main/packages/learning-coach-app/src/prompts/chat/skprompt.txt)

If you have completed this successfully, you can always continue your journey with the next exercises in our Copilot Developer Camp: [Welcome - Copilot Developer Camp](#)