

Quickstart: Chat with Azure OpenAI models using your own data

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In this quickstart, you can use your own data with Azure OpenAI models. Using Azure OpenAI's models on your data can provide you with a powerful conversational AI platform that enables faster and more accurate communication.

Prerequisites

The following resources:

- [Azure OpenAI](#)
- [Azure Blob Storage](#)
- [Azure AI Search](#)
- An [Azure OpenAI resource](#) deployed in a [supported region and with a supported model](#).
 - Be sure that you're assigned at least the [Cognitive Services Contributor](#) role for the Azure OpenAI resource.
- Download the example data from [GitHub](#) if you don't have your own data.
- The [.NET 8 SDK](#)

Add your data using Azure AI Foundry portal

Tip

You can [use the Azure Developer CLI](#) to programmatically create the resources needed for Azure OpenAI On Your Data

Navigate to [Azure AI Foundry portal](#) and sign-in with credentials that have access to your Azure OpenAI resource.

1. You can either [create an Azure AI Foundry project](#) by clicking **Create project**, or continue directly by clicking the button on the **Focused on Azure OpenAI Service** tile.

Jump into a project [View all projects](#) [+ Create project](#)

Project	Hub	Description	Location	Created on
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Work outside of a project

Focused on Azure OpenAI Service?

Build specifically with Azure OpenAI models and features.

[Let's go](#)

Chat playground

When did Mona say that planning project and what is the timeline for Planning Document?

Chatbot

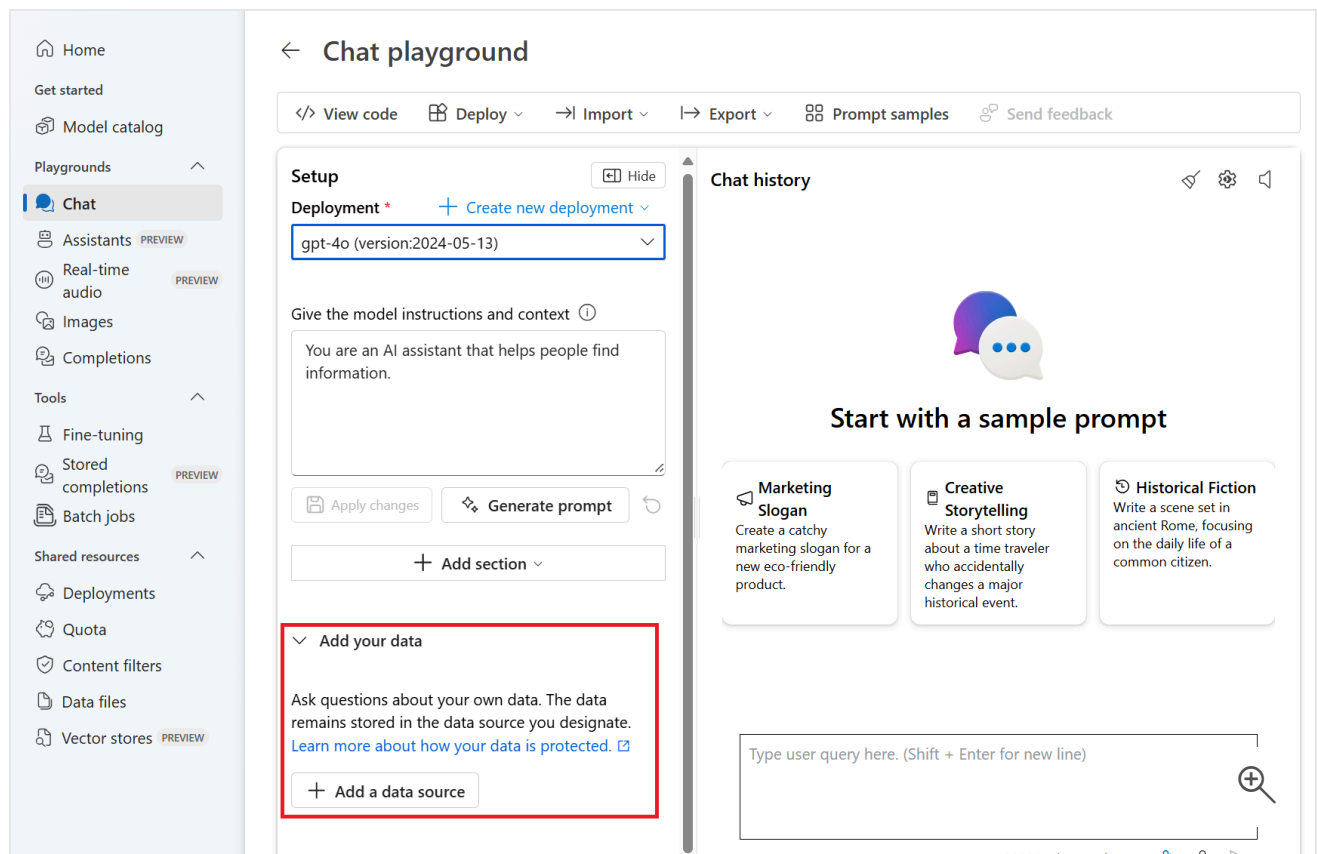
Mona said that Summit Center project is set to start and site preparation for the new arena in Atlanta go into the following year.

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2. Select **Chat** under **Playgrounds** in the left pane, and select your model deployment.
3. In the **Chat playground**, Select **Add your data** and then **Add a data source**



4. In the pane that appears, select **Upload files (preview)** under **Select data source**. Azure OpenAI needs both a storage resource and a search resource to access and index your data.

Tip

- See the following resource for more information:
 - [Data source options](#)
 - [supported file types and formats](#)
- For documents and datasets with long text, we recommend using the available [data preparation script](#) .

- a. For Azure OpenAI to access your storage account, you will need to turn on [Cross-origin resource sharing \(CORS\)](#) . If CORS isn't already turned on for the Azure Blob Storage resource, select **Turn on CORS**.
- b. Select your Azure AI Search resource, and select the acknowledgment that connecting it will incur usage on your account. Then select **Next**.

Add data
×

Data source

Upload files

Data management

Review and finish

Select or add data source

Your data source is used to ground the generated results with your data. Select an existing data source or create a new data connection with Azure Blob storage, databases, search, URLs, or local files as the source the grounding data will be built from. [Learn more about data privacy and security in Azure AI.](#)

Select data source *

Upload files (preview)

Subscription *

Select Azure Blob storage resource ⓘ *

Select...

[Create a new Azure Blob storage resource](#)

Select Azure AI Search resource ⓘ *

Select...

[Create a new Azure AI Search resource](#)

Enter the index name ⓘ *

Index name

☐ Add vector search to this search resource. ⓘ

☐ I acknowledge that connecting to an Azure AI Search account will incur usage to my account. * [View Pricing](#)

Next

+
Cancel

- On the **Upload files** pane, select **Browse for a file** and select the files you downloaded from the [prerequisites](#) section, or your own data. Then select **Upload files**. Then select **Next**.
- On the **Data management** pane, you can choose whether to enable [semantic search](#) or [vector search](#) for your index.

ⓘ Important


- [Semantic search](#) and [vector search](#) are subject to additional pricing. You need to choose **Basic** or **higher SKU** to enable semantic search or vector search. See [pricing tier difference](#) and [service limits](#) for more information.
- To help improve the quality of the information retrieval and model response, we recommend enabling [semantic search](#) for the following data source languages: English, French, Spanish, Portuguese, Italian, Germany, Chinese(Zh), Japanese, Korean, Russian, and Arabic.

7. Review the details you entered, and select **Save and close**. You can now chat with the model and it will use information from your data to construct the response.

Retrieve resource information

You need to retrieve the following information to authenticate your application with your Azure OpenAI resource. This quickstart assumes you've uploaded your data to an Azure blob storage account and have an Azure AI Search index created. See [Add your data using Azure AI Foundry portal](#).

Microsoft Entra ID

 Expand table

Variable name	Value
AZURE_OPENAI_ENDPOINT	This value can be found in the Keys & Endpoint section when examining your Azure OpenAI resource from the Azure portal. An example endpoint is: <code>https://my-resoruce.openai.azure.com</code> .
AZURE_OPENAI_DEPLOYMENT_NAME	This value corresponds to the custom name you chose for your deployment when you deployed a model. This value can be found under Resource Management > Deployments in the Azure portal.
AZURE_AI_SEARCH_ENDPOINT	This value can be found in the Overview section when examining your Azure AI Search resource from the Azure portal.
AZURE_AI_SEARCH_INDEX	This value corresponds to the name of the index you created to store your data. You can find it in the Overview section when examining your Azure AI Search resource from the Azure portal.

Learn more about [keyless authentication](#) and [setting environment variables](#).

From the project directory, open the *Program.cs* file and replace its contents with the following code:

C#

```
using System;
using Azure.AI.OpenAI;
using System.ClientModel;
```

```

using Azure.AI.OpenAI.Chat;
using OpenAI.Chat;
using static System.Environment;

string azureOpenAIEndpoint = GetEnvironmentVariable("AZURE_OPENAI_ENDPOINT");
string azureOpenAIKey = GetEnvironmentVariable("AZURE_OPENAI_API_KEY");
string deploymentName = GetEnvironmentVariable("AZURE_OPENAI_DEPLOYMENT_NAME");
string searchEndpoint = GetEnvironmentVariable("AZURE_AI_SEARCH_ENDPOINT");
string searchKey = GetEnvironmentVariable("AZURE_AI_SEARCH_API_KEY");
string searchIndex = GetEnvironmentVariable("AZURE_AI_SEARCH_INDEX");

AzureOpenAIClient openAIClient = new(
    new Uri(azureOpenAIEndpoint),
    new ApiKeyCredential(azureOpenAIKey));
ChatClient chatClient = openAIClient.GetChatClient(deploymentName);

// Extension methods to use data sources with options are subject to SDK surface
// changes. Suppress the
// warning to acknowledge and this and use the subject-to-change AddDataSource
// method.
#pragma warning disable AOAI001

ChatCompletionOptions options = new();
options.AddDataSource(new AzureSearchChatDataSource()
{
    Endpoint = new Uri(searchEndpoint),
    IndexName = searchIndex,
    Authentication = DataSourceAuthentication.FromApiKey(searchKey),
});

ChatCompletion completion = chatClient.CompleteChat(
    [
        new UserChatMessage("What health plans are available?"),
    ],
    options);

ChatMessageContext onYourDataContext = completion.GetMessageContext();

if (onYourDataContext?.Intent is not null)
{
    Console.WriteLine($"Intent: {onYourDataContext.Intent}");
}
foreach (ChatCitation citation in onYourDataContext?.Citations ?? [])
{
    Console.WriteLine($"Citation: {citation.Content}");
}

```

For production, use a secure way of storing and accessing your credentials like [Azure Key Vault](#). For more information about credential security, see the Azure AI services [security](#) article.

Windows Command Prompt

```
dotnet run Program.cs
```

Output

Output

Contoso Electronics offers two health plans: Northwind Health Plus and Northwind Standard [doc1]. Northwind Health Plus is a comprehensive plan that provides coverage for medical, vision, and dental services, prescription drug coverage, mental health and substance abuse coverage, and coverage for preventive care services. It also offers coverage for emergency services, both in-network and out-of-network. On the other hand, Northwind Standard is a basic plan that provides coverage for medical, vision, and dental services, prescription drug coverage, and coverage for preventive care services. However, it does not offer coverage for emergency services, mental health and substance abuse coverage, or out-of-network services [doc1].

Intent: ["What are the available health plans?", "List of health plans available", "Health insurance options", "Types of health plans offered"]

Citation:

Contoso Electronics plan and benefit packages

Thank you for your interest in the Contoso electronics plan and benefit packages. Use this document to

learn more about the various options available to you...// Omitted for brevity

This will wait until the model has generated its entire response before printing the results.

Clean up resources

If you want to clean up and remove an Azure OpenAI or Azure AI Search resource, you can delete the resource or resource group. Deleting the resource group also deletes any other resources associated with it.

- [Azure AI services resources](#)

- [Azure AI Search resources](#)
- [Azure app service resources](#)

Next steps

- Learn more about [using your data in Azure OpenAI Service](#)
- [Chat app sample code on GitHub](#) .