

Lab 4: Build a web app with Azure open AI connected to Cosmos dB MongoDB Vcore

This document describes how to create and deploy an azure Web application using the data populates the Azure Cosmos DB for MongoDB collection.

Pre-requisites


Ensure that you have the following software installed on your system before proceeding with the lab:

- Azure cosmos dB mongo Vcore
- Optional an azure Speech service
- Azure OpenAI account registered in the Azure subscription used for this lab with deployment of azure open AI model. (Lab 3)
- Data on your Azure cosmos DB mongo Vcore environment (Lab3)

Configure the Chat environment in azure open AI.

Follow these steps to Create a chat conversation who will interact with your data in Azure Cosmos dB MongoDB Vcore

- Login to the Azure Portal
- Connect to the Azure OpenAI account.
- Click on Go to Azure OpenAI Studio, who will launch Azure Open AI studio A

 [Go to Azure OpenAI Studio](#)

-
- In the left menu, select “chat.”
- In assistant Setup select “add your own Data” and click on “add a data source “
- Click on select a data source and select Azure cosmos dB MongoDB Vcore
- Add your information’s (subscription, Database account name ...) like below.

Add data



- ☒ Data source
- ☐ Data field mapping
- ☐ 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, or local files as the source the grounding data will be built from. The data remains stored in the data source you designate.

[Learn more about data privacy and security in Azure AI.](#) 

Select data source *

Azure Cosmos DB for MongoDB vCore

Subscription *

Azure Pass - Sponsorship

Database account ⓘ *

hackcomsodb

Authentication

Username *

sa

Password *

.....



Next

Cancel

-
- Click next.
- Select the different information (database, collection, index ...)

Add data



- ☒ Data source
- ☐ Data field mapping
- ☐ Review and finish

Select Database

Enter the information below to set up your Azure Cosmos DB for MongoDB vCore as a data source

[Learn more about data privacy and security in Azure AI.](#)

Database name *

database_team1

Database collection *

products_team1

Index name *

vectorSearchIndex

Embedding model

To use a vector model as part of your data, select one below:

Select an embedding model ⓘ *

Azure OpenAI - text-embeddi...

☒ I acknowledge that adding vector embeddings will incur usage to my account. [View Pricing](#)

Back

Next

Cancel

- Click on next.
- In the content data add the following field for product: categoryId,categoryName,sku,name,description,price,tags.”
- Select the vector field.

Add data



☒ Data source

☐ Data field mapping

☐ Review and finish

Index data field mapping

For the best results, tell us more about the fields in your index. Your content data field(s) will be used to ground the model on your data. File name, title, and URL are used to display more information when a document is referenced in the chat.

[Learn more about data privacy and security in Azure AI.](#)

Content data * ⓘ

categoryId,categoryName,sku,name,description,price,tags

Separate field names with a comma

File name ⓘ

Title ⓘ

URL ⓘ

Vector Fields ⓘ *

vectorContent



Back

Next

Cancel

-
- Click on next.
- Click on save or close.
- Go to the chat session Tab and ask a question.
 - Ask the following questions
 - “Do you sell mountain bike; do you have some details information on.”
 - The prompt should respond with some references.

Add voice recognition in the chat.

Run these if you want to add voice recognition in your chat:

- In the chat session tab click on Playground setting
- Add your information on speech resources, language, and enable speech to text. Like below and click on save

Playground Settings

Speech

Language *
English (United States)

Subscription *
Azure Pass - Sponsorship

Speech resource *
HACKspeechtotext

☒ I acknowledge that spoken chat will incur usage to my subscription. [Learn more](#)

Speech to text

The speech to text feature that allows spoken text to be used for input to the model can be enabled or disabled for the playground.

☒ Enable speech to text

Text to speech

The text to speech that reads the model responses can be enabled or disabled for the playground.

☒ Enable text to speech

Voice configuration *
Cora

Voice speed *
1.5x

Voice sample
Hi, I'mCora. How can I help you today?

Play

Save

Close

- In the chat you can test the speech to text and text to speak integration

- Click on the micro as shown below and ask the same question as before.

Do you use a mountain bike? Do you have some detailed information on?

As an AI assistant, I do not have the ability to use a mountain bike. However, based on the retrieved documents, there are mountain bikes being sold. The available information includes the product names, sizes, prices, and associated tags. Here are the details of the mountain bikes available:

- Mountain-300 Black, 38, priced at 1079.99 ¹
- Mountain-300 Black, 44, priced at 1079.99 ²
- Mountain-300 Black, 48, priced at 1079.99 ³
- Mountain-100 Black, 42, priced at 3374.99 ⁴

Please note that this information is limited to what is available in the retrieved documents. If you have any specific questions or requirements, please let me know and I will do my best to assist you.

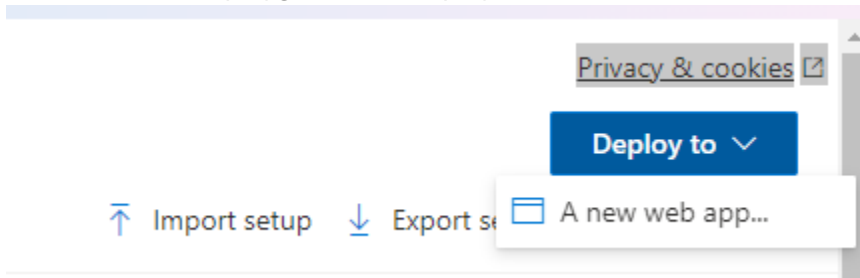
4 references >

Type user query here. (Shift + Enter for new line)

Deploying an azure web application

In this section, you will deploy a chat web application using the configuration you have done before.

- Click on the chat playground on deploy to



- Select A new web app.
- Enter the Name of the web app, select the subscription the resource group, select a location, and select a pricing plan, select enable chat history in the web app and all the field like present below and click on deploy:

Deploy to a web app

ⓘ Your web app will be configured with Azure Active Directory authentication enabled. It may take a few minutes to apply after deployment completes, during which time you will not be able to chat in the app. Please wait 10 minutes, then reload the app and log in to begin chatting.

Pick your configurations to deploy a web app. [Learn more about web apps](#)

☒ Create a new web app ☐ Update an existing web app

Name ⓘ *

Subscription ⓘ *

Resource group ⓘ *

Location ⓘ *

Pricing plan ⓘ *

☒ Enable chat history in the web app

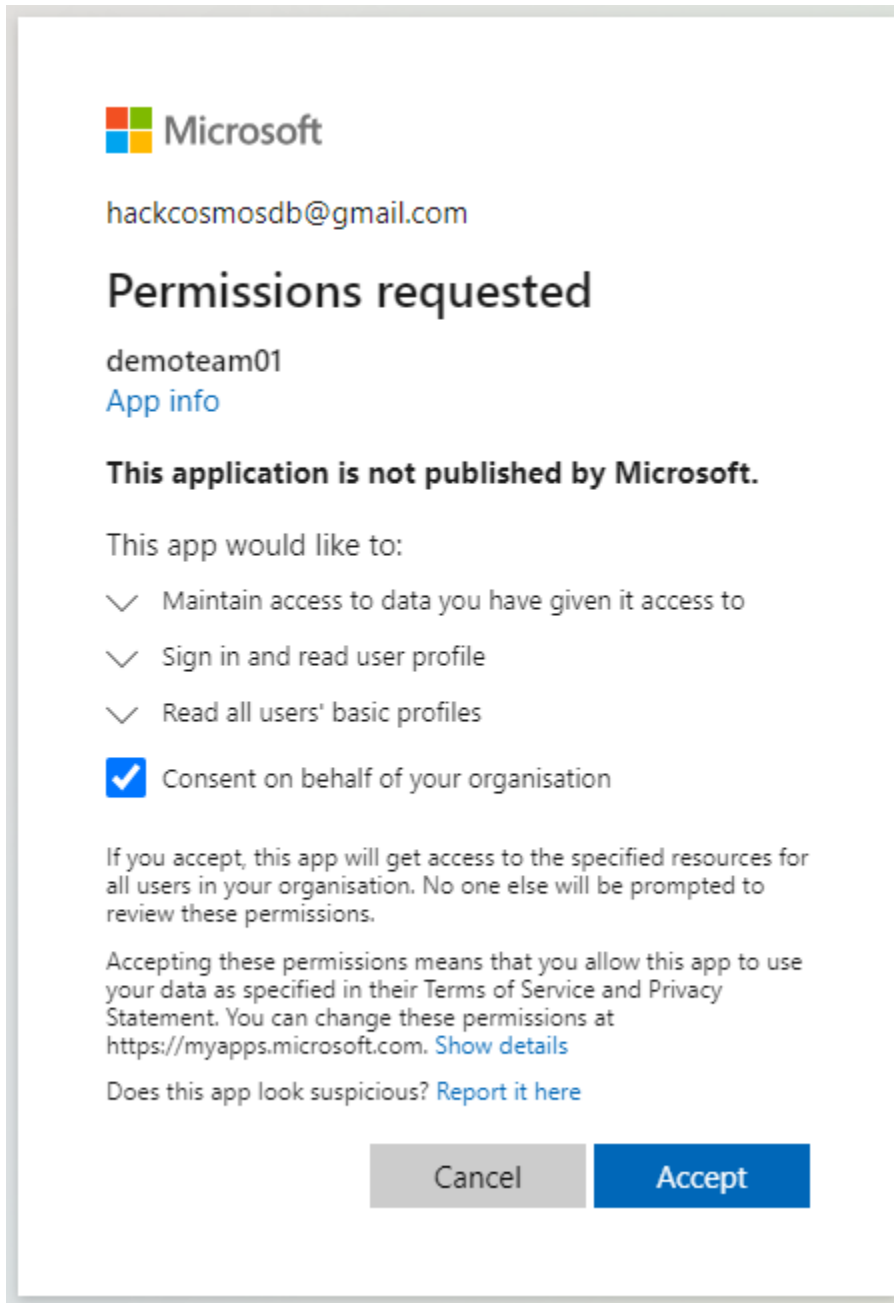
☒ I acknowledge that enabling chat history will incur CosmosDB usage to my account [View Pricing](#)

☒ I acknowledge that web apps will incur usage to my account [View Pricing](#)

- The deployment is done, wait 10 minutes and go to the azure portal.

The application uses the GitHub template <https://github.com/microsoft/sample-app-aoai-chatGPT> , you can customize and change

- In the azure portal you will have a
 - An service plan : [asp-demoteam01](#)
 - An Azure Cosmos DB account [db-demoteam01](#) who will store in a collection name "conversations"
 - An App Service demoteam01
- Click on the app service and click on the Default domain URI. A new tab will be opening to your web app.
- Just click on Consent on behalf of your organization and accept as below.



Add your question and a response is generated.

Go back to the azure portal, go the Azure cosmos dB account associated with the web application, click on the data explorer and in My data, go to the collection conversation and expand to see the item, some item should be registered.