

Chat with your Data

MLADs HL231 - Hands-on Lab

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Mission



Empower every byte of data achieve its full potential

Goals

This hands-on lab will walk you through setting up AI-assisted chat using Azure SQL Database and REST endpoints.

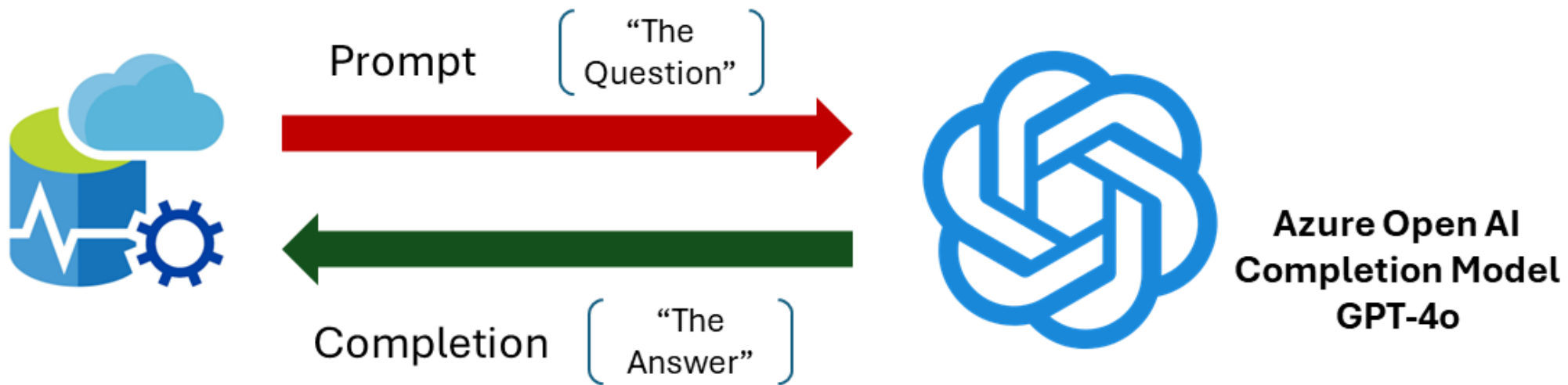
- Understand of how to make REST calls to Azure AI Content Safety and Azure OpenAI.
- How to extend this approach to AI scenarios, such as Hybrid Search and Generative AI
- Receive practical tips and real-world examples to immediately apply chat-driven features in app development.

This session is for application developers, data scientists and AI engineers.

Agenda

aka.ms/sqlai
aka.ms/sqlaisamples

1. [Creating] and Connecting to your free Azure SQL Database
2. Creating embedding and storing in SQL database
3. Vector search with vector functions
4. Hybrid search
5. Chat completion using Azure OpenAI
6. Using the Azure AI Content Safety endpoints
7. What's possible and Resources





Text

Description of each product in the database



Embeddings

Vector



**Azure Open AI
Embedding Model
text-embedding-ada-002**



Text

"The Question"



Contextual
Data

Output of vector
similarity query



Completion

"The Answer"

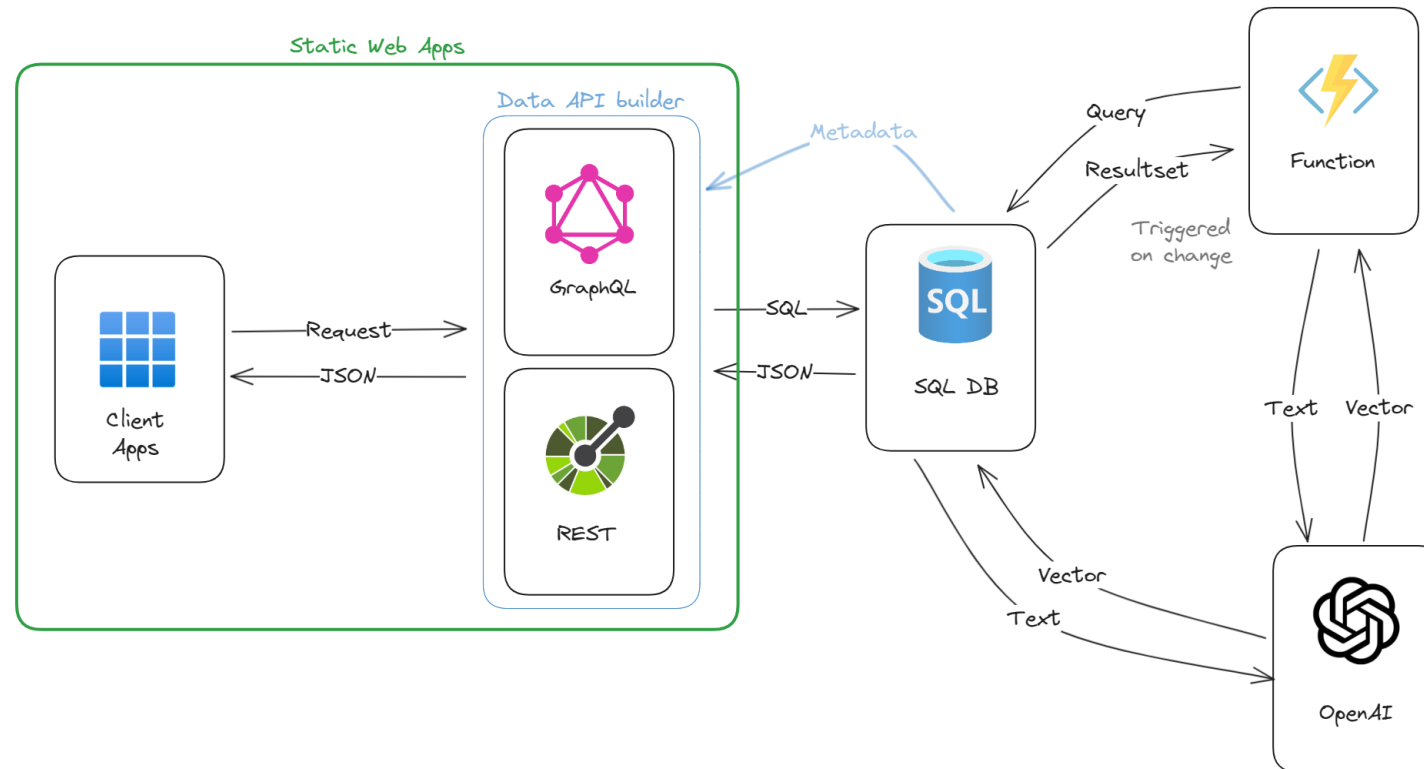


**Azure Open AI
Completion Model
GPT-4o**

Putting it all together

- RAG Patterns
 - Embeddings
 - PII
 - Prompt Safety
- Hybrid and Similarity Search

Session Recommender (Similarity Search) Architecture



Azure SQL DB + REST endpoint (Open AI or any other REST API...)

<https://github.com/Azure-Samples/azure-sql-db-session-recommender-v2>

Try it: <https://ai.chicago.vslive.com/>

Resources

- aka.ms/sqlai
- aka.ms/sqlaisamples
- aka.ms/freedb
- aka.ms/dab

Hands-on Lab

<https://github.com/AzureSQLDB/GenAILab>

Blogs

- <https://devblogs.microsoft.com/azure-sql/>
- <https://techcommunity.microsoft.com/t5/azure-sql-blog/bg-p/AzureSQLBlog>
- <https://devblogs.microsoft.com/azure-sql/unleashing-the-potential-of-generative-ai-in-azure-sql-database/>
- <https://devblogs.microsoft.com/azure-sql/announcing-eap-native-vector-support-in-azure-sql-database/>

Azure SQL DB Essentials

<https://learn.microsoft.com/en-us/shows/azure-sql-database-essentials/>