

Build AI Apps with Azure Database for PostgreSQL

Course Duration: 8 Hrs.

Course Code: AI-3019

Course Overview

This course, you will understand how to integrate AI with databases in addition to developed practical skills for building scalable data driven applications. AI-3019 is for any IT professionals interested in database management and AI solutions.

What you'll learn?

After completing this course, students will be able to:

- Develop powerful Generative AI applications using Azure Database for PostgreSQL
- Implement semantic search and use embedding vectors for vector similarity.

Summarize complex data using Generative AI summarization techniques.

- Perform sentiment analysis and opinion mining to extract insights from textual data.
- Utilize Azure AI Language tools for key phrase extraction, entity recognition, and redaction.
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- Evaluate the performance of custom prompt flows

Course Content

Module 01: Get started with generative AI in Azure Database for PostgreSQL

- Making AI easy to use in Azure Database for PostgreSQL
- When to use Azure AI Foundry Connect an app to Document Intelligence APIs

Module 02: Enable semantic search in Azure Database for PostgreSQL

- Creating vector columns to store embeddings.
- Quieting the database using a query vector

Module 03: Describe and explain the differences between the various summarizations

- Understand the development of a large language app
- Apply generative AI summarization techniques to data in a PostgreSQL the
- Explore fine-tuning language models in Azure AI Studio

Module 04: Fine-tune a language model with Azure AI Foundry

- Understand when to fine-tune a language model
- Prepare your data to fine-tune a chat completion model
- Explore fine-tuning language models in Azure AI Studio
- Generative AI solution

Module 05: Extract insights using Azure AI Language and Azure Database for PostgreSQL

- **Key phrase extraction:** Pulling out the most important phrases to quickly grasp the main ideas.
- **Named entity recognition:** Identifying and categorizing important entities in text.

Pre-Requisites

Familiarity with Azure AI Services and the Azure portal.