



MICROSOFT TRAINING

AI-3019: Build AI Apps with Azure Database for PostgreSQL Course Overview

Learn to build powerful AI applications using Azure Database for PostgreSQL. Prepare for your AI-3019 certification and master scalable data solutions.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

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COURSE OVERVIEW

Unlock the power of intelligent applications with the AI-3019: Build AI Apps with Azure Database for PostgreSQL Course Overview. This intermediate-level course, specifically designed for developers and data professionals, provides a concise yet comprehensive introduction to integrating artificial intelligence capabilities directly with your relational data using Azure Database for PostgreSQL. You'll explore how to leverage the robust features of PostgreSQL on Azure, including extensions like pgvector, to store, manage, and query data that powers modern AI applications, all within a scalable and managed cloud environment.

This 2-hour overview delves into the fundamental concepts and practical steps required to build AI-driven solutions. Participants will learn about core technologies such as Azure AI Services (e.g., Azure OpenAI, Azure Cognitive Search) and how to seamlessly connect them with PostgreSQL databases to create intelligent features like semantic search, recommendation engines, and context-aware applications. The course emphasizes practical understanding, equipping you with the foundational knowledge to design and implement AI applications that derive insights and value directly from your enterprise data.

By the end of this course, you will understand the architectural patterns for building AI applications with Azure Database for PostgreSQL and be prepared to explore more advanced implementations. This skill set is invaluable for enhancing data-driven decision-making, automating complex tasks, and delivering smarter, more responsive user experiences within your applications.

Duration	2 hours
Level	Intermediate
Vendor	Microsoft
Exam Code	AI-3019

COURSE CURRICULUM

01 Module 1: Introduction to AI with Azure Database for PostgreSQL

- Overview of AI Application Landscape and Challenges
- Understanding Azure Database for PostgreSQL for AI Workloads
- Key Benefits of PostgreSQL in AI Ecosystems (Scalability, Extensions)
- Introduction to Vector Databases and pgvector Extension

02 Module 2: Integrating Azure AI Services with PostgreSQL

- Connecting Azure AI Services (Azure OpenAI, Azure Cognitive Search) to PostgreSQL
- Strategies for Storing and Managing Vector Embeddings in PostgreSQL
- Performing Semantic Search and Similarity Queries using pgvector
- Leveraging Azure Data Factory or Azure Functions for Data Ingestion and Transformation

03 Module 3: Building and Deploying Simple AI Applications

- Architectural Patterns for AI Apps with PostgreSQL and Azure
- Developing a Basic AI-Powered Application (e.g., Q&A, Recommendation System)
- Best Practices for Data Security and Performance in AI Workloads
- Introduction to Monitoring and Management of AI Solutions on Azure

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **AI/ML Engineer specializing in Data-Intensive Applications**
- > **Cloud Data Engineer focused on Intelligent Database Solutions**
- > **Solutions Architect for Azure-based AI Platforms**

FREQUENTLY ASKED QUESTIONS

Q: What specific types of AI applications will I be able to conceptually build after completing this course?

After this course, you will gain the foundational understanding to conceptually design and approach building AI applications such as semantic search engines, content recommendation systems, chatbots with persistent memory, and intelligent data analysis tools that leverage vector embeddings and Azure AI Services with PostgreSQL as their data backbone.

Q: What are the recommended prerequisites for someone considering the AI-3019 course?

This intermediate course assumes a basic understanding of relational databases, SQL queries, and fundamental cloud concepts (preferably Azure). Familiarity with a programming language (like Python) and an introductory grasp of AI/ML concepts would be beneficial but are not strictly required as the course focuses on integration and application building patterns.

Q: How does this course differ from other Azure AI courses that focus on specific AI services or machine learning models?

Unlike courses that deep-dive into specific Azure AI services like Azure Machine Learning or Azure OpenAI Service, AI-3019 uniquely focuses on the critical integration point: how to effectively use Azure Database for PostgreSQL as a robust, scalable, and intelligent data store for your AI applications. It teaches you to bridge the gap between your raw data, AI models, and application logic, emphasizing data storage strategies for AI-driven features.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

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