Develop AI-enabled database solutions

Duration: 3 Days **Course Code: M-DP800** **Delivery Method: Company Event**

Overview:

Design and develop AI-enabled database solutions across Microsoft SQL platforms using Azure SQL, SQL Server, and Microsoft Fabric.
This course provides students with the knowledge and skills to design and develop AI enabled database solutions across Microsoft SQL platforms, including SQL Server, Azure SQL, and SQL databases in Microsoft Fabric. It is intended for professionals who build modern data solutions that integrate structured and semi structured data and incorporate AI features into scalable enterprise applications. It will also be valuable for individuals who develop applications that rely on SQL based data services enhanced with vector search, embeddings, and other AI driven capabilities.

Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

Target Audience:

The audience for this course is data professionals who want to learn about designing and developing AI-enabled database solutions across Microsoft's SQL platforms, including SQL Server, Azure SQL, and SQL databases in Microsoft Fabric. This role develops database solutions that include both structured and semi-structured data and integrates AI features into modern and highly scalable enterprise applications.

Objectives:

- After this course participants should be able to:
- Design AI-enabled database solutions across Azure SQL, SQL Server, and Microsoft Fabric
- Apply advanced T-SQL to build scalable, AI-ready database architectures
- Implement vectors, embeddings, and semantic search directly within SQL platforms
- Build retrieval-augmented generation (RAG) workflows using SQL-based data
- Integrate AI capabilities into enterprise applications without moving data
- Secure, optimize, and deploy AI-enabled SQL solutions using best practices

Prerequisites:

Basic understanding of databases and familiarity with SQL, along with foundational knowledge of AI or machine learning concepts is recommended.

Testing and Certification

None

Content:

Module 1: Design and develop database solutions

- Design and implement database objects with SQL
- Implement programmability objects with SQL
- Write advanced T-SQL code
- Implement SQL solutions by using AI-assisted tools

Module 2: Secure, optimize, and deploy database solutions

- Implement data security and compliance with SQL
- Optimize database performance
- Implement CI/CD by using SQL Database Projects
- Integrate SQL solutions with Azure services

Module 3: Implement AI capabilities in database solutions

- Design and implement models and embeddings with SQL
- Design and implement intelligent search with SQL
- Design and implement RAG with SQL

Further Information:

For More information, or to book your course, please call us on 0800/84.009

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