

Develop AI-enabled database solutions

Courses Code: DP-800T00

Duration: 4 Days

Delivery Mode: Instructor-led Training (ILT) | Virtual Instructor led Training (VILT)

Overview

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.

Skills Covered

- Understand the fundamentals of **AI-enabled database solutions** and their business use cases.
- Explore how databases support **AI, analytics, and intelligent applications**.
- Design database architectures that can handle **structured and unstructured data**.
- Learn how to integrate **AI capabilities** into modern database environments.
- Work with data pipelines to prepare and manage **AI-ready data**.
- Understand how to use databases for **machine learning and generative AI workloads**.
- Explore methods to improve **data quality, governance, and security** in AI-driven solutions.
- Build scalable and efficient database solutions for **cloud and hybrid environments**.
- Gain insights into **performance optimization** for AI-enabled applications.
- Understand best practices for deploying and managing **enterprise-grade database solutions**.

Who Should Attend

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.

Prerequisites

Before starting this learning path, you should have experience writing T-SQL queries, a basic understanding of database concepts such as tables, joins, and transactions, and familiarity with SQL Server, Azure SQL Database, or SQL databases in Microsoft Fabric.



Course Modules

Module 1: Design and implement database objects with SQL

This module covers designing and implementing various database objects including tables with different data types, specialized table types, indexes, constraints, and partitioning strategies. You'll learn how to create and optimize database objects for modern SQL platforms.

Module 2: Implement programmability objects with SQL

Learn how to create and use views, stored procedures, scalar functions, table-valued functions, and triggers to build maintainable, secure, and efficient database solutions.

Module 3: Write advanced T-SQL code

Learn advanced T-SQL techniques including CTEs, window functions, JSON, regular expressions, fuzzy matching, graph queries, and error handling for SQL Server, Azure SQL, and Fabric.

Module 4: Implement SQL solutions by using AI-assisted tools

Learn how to leverage GitHub Copilot and Fabric Copilot for AI-assisted database development across SQL Server, Azure SQL, and SQL databases in Microsoft Fabric.

Ref: <https://trainocate.com/courses/microsoft/dp-800t00-develop-ai-enabled-database-solutions-training>

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