

# Develop AI-enabled database solutions

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.



## Training recipients

The training is intended for:

- Data Analysts
- Data Engineers
- Data Scientists
- Database Administrators



## Benefits

Foundation skills acquired include:

- You'll learn how to create and optimize database objects for modern SQL platforms.
- You learn to design intelligent search using full-text and vector search, integrate AI models and embeddings, and build Retrieval Augmented Generation (RAG) solutions entirely in T-SQL.
- You also accelerate your development workflow with AI-assisted tools including GitHub Copilot and Fabric Copilot.



## Training program

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
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
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



## Expected preparation of the participant

- 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.
- Before starting this course, 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, experience with Git version control and CI/CD concepts, and a general understanding of AI concepts.



## Training Includes

- manual in electronic form available on the platform: <https://learn.microsoft.com/pl-pl/training/>
- access to Altkom Akademia's student portal

### Training method:

- Lecture and product presentation (50%)
- Exercise (50%)

Major teaching tools include PowerPoint presentations, test-environment demonstrations, hands-on lab environments, and Microsoft Learn [DP-800 resources](#)



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### Language

- Training: English
- Materials: English