

KOENIG SOLUTIONS · COURSE OUTLINE

Microsoft Copilot for Data and AI

Learn to use Microsoft Copilot to build, optimise and automate ETL pipelines, data analytics and visualisations across Azure and Microsoft Fabric.

2 Days

DURATION

8

MODULES

30

TOPICS

15

HANDS-ON LABS

COURSE OVERVIEW

This hands-on training program is designed to empower Data Engineers and Data Analysts with the skills to leverage Microsoft Copilot for streamlining data workflows on Azure and Microsoft Fabric. Participants will learn how to use Copilot's AI-powered capabilities to automate code generation, optimize ETL pipelines, enhance data analytics, and create insightful visualizations. The course also includes a foundational module on AI concepts to help participants understand the technology behind Copilot and use it responsibly.

WHO THIS COURSE IS FOR

Data Engineers who want to automate and optimize data pipelines using AI-powered tools

Data Analysts who want to enhance their data exploration, analysis, and visualization workflows

Technical Leads or Managers overseeing data teams and looking to adopt AI-driven productivity tools

Azure and Microsoft Fabric users who want to maximize their efficiency with Copilot

PREREQUISITES

- Basic knowledge of SQL and Python.
- Familiarity with Azure services (e.g., Azure Data Lake, Synapse Analytics) and Microsoft Fabric.
- No prior experience with AI or Microsoft Copilot is required.

LEARNING OBJECTIVES

By the end of the training, participants will be able to:

- Use Microsoft Copilot to generate and optimize code for data engineering and analytics tasks
- Build and automate ETL pipelines using Azure Data Factory and Synapse Analytics
- Create advanced data visualizations and reports with Power BI and Copilot
- Integrate Copilot into collaborative workflows and CI/CD pipelines
- Apply their skills to real-world projects in Azure and Microsoft Fabric

8 Modules, 30 Topics

01

2 Labs

Introduction to Microsoft Copilot

TOPICS

- Overview of Microsoft Copilot and its role in data workflows
- **Key features:** Natural language queries, code generation, and task automation
- Use cases for Data Engineering and Data Analytics
- Limitations and best practices for using Copilot effectively

02

2 Labs

AI Fundamentals for Data Professionals

TOPICS

- What is AI? Overview of artificial intelligence and its applications.
- **Key AI concepts:** Machine learning, natural language processing (NLP), and generative AI
- **How Microsoft Copilot uses AI:** Overview of large language models (LLMs) and their role in Copilot
- Ethical considerations and responsible AI usage

03

2 Labs

Setting Up Your Environment

TOPICS

- Overview of Azure and Microsoft Fabric for data storage, engineering, and analytics
- Setting up Azure services (e.g., Azure Data Lake, Synapse Analytics, Azure Data Factory)
- Enabling and configuring Microsoft Copilot in Microsoft Fabric
- Permissions and access control for Copilot

04

2 Labs

Using Copilot for Data Engineering

TOPICS

- Writing ETL pipelines with Copilot
- Generating code for data ingestion, transformation, and loading (e.g., Azure Data Factory, Synapse Pipelines)
- Using Copilot for SQL queries and database interactions
- Automating data workflows with Copilot suggestions

05**2 Labs**

Using Copilot for Data Analytics

TOPICS

- Generating code for data analysis in Python (e.g., Pandas, NumPy)
- Using Copilot for data visualization (e.g., Power BI integration)
- Automating report generation and dashboard creation
- Best practices for using Copilot in exploratory data analysis (EDA)

06**2 Labs**

Advanced Data Engineering with Copilot

TOPICS

- Optimizing ETL pipelines with Copilot suggestions
- Using Copilot for complex SQL queries and stored procedures
- Automating data validation and quality checks
- Integrating Copilot with Azure DevOps for CI/CD pipelines

07**2 Labs**

Advanced Data Analytics with Copilot

TOPICS

- Using Copilot for advanced data transformations and aggregations
- Automating repetitive analytics tasks (e.g., report generation, data cleansing)
- Integrating Copilot with Power BI for advanced visualizations
- Best practices for collaborative analytics workflows

08**Lab**

Best Practices

TOPICS

- Writing clean, maintainable code with Copilot
- Reviewing and validating Copilot-generated code

Practise What You Learn

#	MODULE	ACTIVITY
01	Introduction to Microsoft Copilot	■ Explore the Microsoft Copilot interface in Azure and Microsoft Fabric ■ Use Copilot to generate a simple SQL query or Python script
02	AI Fundamentals for Data Professionals	■ Explore examples of AI-powered tools (e.g., Copilot, ChatGPT) to understand their capabilities ■ Discuss real-world use cases of AI in data engineering and analytics
03	Setting Up Your Environment	■ Set up a Microsoft Fabric workspace and enable Copilot ■ Connect Copilot to an Azure Data Lake or Synapse Analytics instance
04	Using Copilot for Data Engineering	■ Build a simple ETL pipeline using Copilot for Azure Data Factory ■ Write SQL queries for data extraction and transformation with Copilot assistance
05	Using Copilot for Data Analytics	■ Analyze a dataset using Copilot-generated Python code ■ Create a Power BI report with Copilot-assisted DAX queries
06	Advanced Data Engineering with Copilot	■ Optimize an existing ETL pipeline with Copilot ■ Write and validate a complex SQL query using Copilot
07	Advanced Data Analytics with Copilot	■ Create an advanced Power BI dashboard with Copilot assistance ■ Automate a data cleansing process using Copilot-generated scripts
08	Best Practices	Review and refactor Copilot-generated code as a team

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

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