

KOENIG SOLUTIONS · COURSE OUTLINE

DP-700T00: Microsoft Fabric Data Engineer

Learn to build, secure and monitor end-to-end data engineering solutions in Microsoft Fabric, from lakehouses and Spark to data warehouses and real-time analytics.

4 Days

DURATION

16

MODULES

56

TOPICS

COURSE OVERVIEW

This intensive 4-day training session is designed to provide participants with comprehensive knowledge and practical skills needed to build efficient and optimized data engineering solutions using Microsoft Fabric, from data ingestion and transformation to securing, managing, monitoring, and optimizing analytics solutions.

WHO THIS COURSE IS FOR

Data Engineers

Analytics Engineers

Data Architects

IT Professionals working with data engineering solutions

LEARNING OBJECTIVES

- Describe end-to-end analytics capabilities in Microsoft Fabric
- Create and query lakehouses using SQL and Spark
- Create and optimise delta tables with Spark
- Orchestrate data movement with pipelines and Dataflows Gen2
- Apply medallion architecture to organise a lakehouse
- Load and query data warehouses using T-SQL
- Configure row-level, column-level and dynamic data masking security
- Work with real-time eventstreams and Eventhouse using KQL

16 Modules, 56 Topics

01

Introduction to end-to-end Analytics Using Microsoft Fabric

TOPICS

- Describe end-to-end analytics in Microsoft Fabric

02

Get Started with Lakehouses in Microsoft Fabric

TOPICS

- Describe core features and capabilities of Lakehouse in Microsoft Fabric
- Create a Lakehouse
- Ingest data into files and tables in a Lakehouse
- Query Lakehouse tables with SQL

03

Use Apache Spark in Microsoft Fabric

TOPICS

- Configure Spark in a Microsoft Fabric workspace
- Identify suitable scenarios for Spark notebooks and Spark jobs
- Use Spark to connect to data sources and ingest data
- Use Spark DataFrames to analyze and transform data
- Use Spark SQL to query data in tables and views
- Visualize data in a Spark notebook

04

Work with Delta Lake Tables in Microsoft Fabric

TOPICS

- Understand Delta Lake and delta tables in Microsoft Fabric
- Create and manage delta tables using Spark
- Optimize delta tables
- Use Spark to query and transform data in delta tables
- Use delta tables with Spark structured streaming

05

Orchestrate Processes and Data Movement with Microsoft Fabric

TOPICS

- Describe pipeline capabilities in Microsoft Fabric
- Use the Copy Data activity in a pipeline
- Create pipelines based on predefined templates
- Run and monitor pipelines

06

Ingest Data with Dataflows Gen2 in Microsoft Fabric

TOPICS

- Describe Dataflow capabilities in Microsoft Fabric
- Create Dataflow solutions to ingest and transform data
- Include a Dataflow in a pipeline

07

Organize a Fabric Lakehouse Using Medallion Architecture Design

TOPICS

- Describe the principles of using the medallion architecture in data management
- Apply the medallion architecture framework within the Microsoft Fabric environment
- Analyze data stored in the Lakehouse using DirectLake in Power BI
- Describe best practices for ensuring the security and governance of data stored in the medallion architecture

08

Get Started with Data Warehouses in Microsoft Fabric

TOPICS

- Describe data warehouses in Fabric
- Understand a data warehouse vs a data Lakehouse
- Work with data warehouses in Fabric
- Create and manage fact tables and dimensions within a data warehouse

09

Load Data into a Microsoft Fabric Data Warehouse

TOPICS

- Learn different strategies to load data into a data warehouse in Microsoft Fabric
- Learn how to build a data pipeline to load a warehouse in Microsoft Fabric
- Learn how to load data in a warehouse using T-SQL
- Learn how to load and transform data with dataflow (Gen 2)

10

Query a Data Warehouse in Microsoft Fabric

TOPICS

- Use SQL query editor to query a data warehouse
- Explore how visual query editor works
- Learn how to connect and query a data warehouse using SQL Server Management Studio

11

Secure a Microsoft Fabric Data Warehouse

TOPICS

- Learn the concepts of securing a data warehouse in Microsoft Fabric
- Learn how to implement dynamic data masking to obscure sensitive information
- Learn how to configure row-level security to provide granular control
- Learn how to implement column-level security to protect sensitive data
- Learn how to configure granular permissions using T-SQL

12

Monitor a Microsoft Fabric Data Warehouse

TOPICS

- Monitor capacity unit usage with the Microsoft Fabric Capacity Metrics app
- Monitor current activity in the data warehouse with dynamic management views
- Monitor querying trends with query insights views

13

Get Started with Real-Time Intelligence in Microsoft Fabric

TOPICS

- Microsoft Fabric includes Real-Time Intelligence capabilities that you can use to capture, analyze, visualize, and act on real-time streams of event data

14

Use real-time Eventstreams in Microsoft Fabric

TOPICS

- Establish source and destinations in Microsoft Fabric Eventstreams
- Capture, transform, and route data using Microsoft Fabric Eventstreams

15

Work with real-time Data in a Microsoft Fabric Eventhouse

TOPICS

- Create an Eventhouse in Microsoft Fabric
- Query real-time data by using Kusto Query Language (KQL)
- Create materialized views and stored functions in a KQL database

16

Administer a Microsoft Fabric Environment

TOPICS

Describe Fabric admin tasks · Navigate the admin center · Manage user access · Govern data in Fabric

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

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Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

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