

KOENIG SOLUTIONS · COURSE OUTLINE

DP-601T00: Implementing a Lakehouse with Microsoft Fabric

Learn to build an end-to-end Lakehouse analytics solution in Microsoft Fabric using Spark, Delta Lake, Dataflows Gen2 and Data Factory pipelines.

1 Day

8 HOURS

6

MODULES

28

TOPICS

COURSE OVERVIEW

The DP-601T00: Implementing a Lakehouse with Microsoft Fabric course is designed to educate learners on how to build an end-to-end analytics solution using Microsoft's integrated analytics platform, known as Microsoft Fabric. This course covers the essential aspects of working with Fabric, including the creation and management of lake houses, leveraging Apache Spark for data processing, understanding Delta Lake tables for reliable storage, integrating Dataflows Gen2 for data ingestion, and utilizing Data Factory pipelines for orchestrating and automating data workflows. Through the comprehensive modules, participants will gain hands-on experience in implementing a Lakehouse architecture, from data exploration and transformation to visualization, and will learn best practices for team collaboration within the Fabric ecosystem. By completing this course, learners can prepare for Microsoft Fabric certification and acquire the skills necessary to architect and implement robust analytics solutions on the Microsoft Fabric platform, setting a foundation for future innovation and data-driven decision-making.

WHO THIS COURSE IS FOR

DP-601T00: Implementing a Lakehouse with Microsoft Fabric is a comprehensive course designed for professionals aiming to master end-to-end analytics with Microsoft's cutting-edge data solutions. Target Audience for DP-601T00 Course:

Data Engineers

Data Scientists

Data Analysts

Solutions Architects

IT Professionals with a focus on data solutions

Database Administrators

Software Developers who specialize in data-oriented applications

Cloud Technology Specialists

Business Intelligence Professionals

Enterprise Architects

Technical Team Leads managing data projects

Professionals seeking to understand Microsoft's data ecosystem

Technical Consultants involved in data platform services

Data Platform Engineers

What You Will Learn

- Explain core concepts and components of Microsoft Fabric
- Describe how to create and work with a Fabric Lakehouse
- Explore, transform and visualise data in the Lakehouse
- Apply Apache Spark to load and transform data frames
- Query data using Spark SQL and the Spark SQL API
- Implement Delta Lake tables including versioning and time travel
- Configure Dataflows Gen2 for data ingestion and transformation
- Build and monitor Data Factory pipelines for orchestration

COURSE SYLLABUS

6 Modules, 28 Topics

01

Introduction to end-to-end Analytics Using Microsoft Fabric

Discover how Microsoft Fabric can meet your enterprise's analytics needs in one platform. Learn about Microsoft Fabric, how it works, and identify how you can use it for your analytics needs.

TOPICS

Introduction to Microsoft Fabric · Data teams and Fabric · Enable and use Microsoft Fabric

02

Get Started with Lake Houses in Microsoft Fabric

Lake houses merge data lake storage flexibility with data warehouse analytics. Microsoft Fabric offers a lake house solution for comprehensive analytics on a single SaaS platform.

TOPICS

- What is a Lakehouse
- Work with a Fabric Lakehouse
- Explore, transform and visualize data in the Lakehouse

03

Use Apache Spark in Microsoft Fabric

Apache Spark is a core technology for large-scale data analytics. Microsoft Fabric provides support for Spark clusters, enabling you to analyze and process data in a Lakehouse at scale.

TOPICS

- Prepare to use Apache Spark
- Run Spark in Fabric
- Load data in a Spark Data Frame
- Transform data in a Spark Data Frame
- Partition the output file
- Work with data using Spark SQL
- Query Data using Spark SQL API
- Visualize Data

04

Work with Delta Lake Tables in Microsoft Fabric

Tables in a Microsoft Fabric Lake house are based on the Delta Lake storage format commonly used in Apache Spark. By using the enhanced capabilities of delta tables, you can create advanced analytics solutions.

TOPICS

Understand Delta Lake · Create delta tables using code in Spark · Managed vs External Tables · Work with delta tables in Spark · Data versioning and Time Travel · Use delta tables with Streaming data

05

Ingest Data with Dataflows Gen2 in Microsoft Fabric

Data ingestion is crucial in analytics. Microsoft Fabric's Data Factory offers Dataflows (Gen2) for visually creating multi-step data ingestion and transformation using Power Query Online.

TOPICS

- Understand Dataflows (Gen2)
- Dataflow (Gen2) benefits and limitations
- Explore Dataflows (Gen2) in Microsoft Fabric
- Integrate Dataflows (Gen2) and Pipelines in Microsoft Fabric

06

Use Data Factory Pipelines in Microsoft Fabric

Microsoft Fabric includes Data Factory capabilities, including the ability to create pipelines that orchestrate data ingestion and transformation tasks.

TOPICS

Pipelines in Microsoft Fabric · Common Activities - Copy Data · Common Activities - pipeline templates · Run and monitor pipeline

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

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

Visit koenig-solutions.com

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