APPLIED SKILLS

Implement a Lakehouse with Microsoft Fabric

Duration	SKILL LEVEL	DELIVERY METHOD	Role	TECHNOLOGY
1	Intermediate	VILT/ILT	Data Analyst	Data & AI

Course Overview

This learning path introduces the foundational components of implementing a data lakehouse with Microsoft Fabric.

This learning path helps prepare you for Exam DP-600: Implementing Analytics Solutions Using Microsoft Fabric.

Prerequisites

You should be familiar with basic data concepts and terminology.

Prepare for the assessment.

Module 1: 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.

Learning objectives

In this module, you'll learn how to:

- Describe end-to-end analytics in Microsoft Fabric

Module 2: Get started with lakehouses in Microsoft Fabric

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

Learning objectives

In this module, you'll learn how to:

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

Module 3: 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.

Learning objectives

In this module, you'll learn how to:

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

Module 4: Work with Delta Lake tables in Microsoft Fabric

Tables in a Microsoft Fabric lakehouse 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.

Learning objectives

In this module, you'll learn how to:

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

Module 5: Ingest Data with Dataflows Gen2 in Microsoft Fabric

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

Learning objectives

In this module, you'll learn how to:

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

Module 6: 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.

Learning objectives

In this module, you'll learn how to:

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

Module 7: Organize a Fabric lakehouse using medallion architecture design

Explore the potential of the medallion architecture design in Microsoft Fabric. Organize and transform your data across Bronze, Silver, and Gold layers of a lakehouse for optimized analytics.

Learning objectives

In this module, you'll learn how to:

- 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.

Take the assessment.

You will have 2 hr to complete this assessment.

This assessment will use an interactive lab to evaluate your performance. It will take a few minutes to load the lab, and you may do other activities while it loads. After you launch the lab, you will need to wait **72 hours** to launch it again. Your mouse movements and text entered during the lab will be recorded for quality purposes. Learn more

Follow on Course

Schedules | Netcampus Group