MS-DP602T00: IMPLEMENT A DATA WAREHOUSE WITH MICROSOFT FABRIC

DURATION	LEVEL	TECHNOLOGY	DELIVERY METHOD	TRAINING CREDITS
1 Day	Beginner	Azure Data	Instructor Led	NA

INTRODUCTION

In this learning path, you'll explore the data warehousing process and learn how to load, monitor, and query a warehouse in Microsoft Fabric.

AUDIENCE PROFILE

- Data Engineers: Professionals who design, build, and manage data pipelines and data warehouses.
- Data Analysts: Individuals who analyze data and need to understand how to query and manage data within a data warehouse.
- Database Administrators: Those responsible for the performance, integrity, and security of databases.
- IT Professionals: People who manage and implement data solutions and need to understand how to leverage Microsoft Fabric for data warehousing.
- Developers: Developers looking to integrate data warehousing solutions with other applications and services.

PREREQUISITES

- You should be familiar with basic data concepts and terminology.

COURSE OBJECTIVES

After completing this course, students will be able to:

- Get started with data warehouses in Microsoft Fabric: Understand the basics of data warehouses, including their structure and how they differ from data Lakehouses.
- Load data into a Microsoft Fabric data warehouse: Learn various strategies to load data, including building data pipelines and using T-SQL and dataflow techniques.
- Query a data warehouse in Microsoft Fabric: Gain skills in querying data using SQL query editors and visual tools and learn how to connect and query using SQL Server Management Studio.
- Monitor a Microsoft Fabric data warehouse: Learn to monitor warehouse operations, including capacity usage and querying trends, using dynamic management views and other monitoring tools.

COURSE CONTENT

Module 1: Get started with data warehouses in Microsoft Fabric
Data warehouses are analytical stores built on a relational schema to support SQL queries. Microsoft Fabric enables you to create a relational data warehouse in your workspace and integrate it easily with other elements of your end-to-end analytics solution.
Lessons

- Introduction.
- Understand data warehouse fundamentals.
- Understand data warehouses in Fabric.
- Query and transform data.
- Prepare data for analysis and reporting.
- Secure and monitor your data warehouse.
- Exercise - Analyze data in a data warehouse.

- Knowledge check.
- Summary.

By the end of this module, you'll be able to:

- 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.

Module 2: Load data into a Microsoft Fabric data warehouse
Data warehouse in Microsoft Fabric is a comprehensive platform for data and analytics, featuring advanced query processing and full transactional T-SQL capabilities for easy data management and analysis.
Lessons

- Introduction.
- Explore data load strategies.
- Use data pipelines to load a warehouse.
- Load data using T-SQL.
- Load and transform data with Dataflow Gen2.
- Exercise: Load data into a warehouse in Microsoft Fabric.
- Knowledge check.
- Summary.

By the end of this module, you'll be able to:

- 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).

Module 3: Query a data warehouse in Microsoft Fabric

Data warehouse in Microsoft Fabric is a comprehensive platform for data and analytics, featuring advanced query processing and full transactional T-SQL capabilities for easy data management and analysis.

Lessons

- Introduction.
- Use the SQL query editor.
- Explore the visual query editor.
- Use client tools to query a warehouse.
- Exercise: Query a data warehouse in Microsoft Fabric.
- Knowledge check.
- Summary.

By the end of this module, you'll be able to:

- 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.

Module 4: Monitor a Microsoft Fabric data warehouse

A data warehouse is a vital component of an enterprise analytics solution. It's important to learn how to monitor a data warehouse so you can better understand the activity that occurs in it.

Lessons

- Introduction.
- Monitor capacity metrics.
- Monitor current activity.
- Monitor queries.
- Exercise - Monitor a data warehouse in Microsoft Fabric.
- Knowledge check.
- Summary.

By the end of this module, you'll be able to:

- 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.

Module 5: Secure a Microsoft Fabric data warehouse

Data warehouse in Microsoft Fabric is a comprehensive platform for data and analytics, featuring advanced query processing and full transactional T-SQL capabilities for easy data management and analysis.

Lessons

- Introduction
- Explore dynamic data masking
- Implement row-level security
- Implement column-level security
- Configure SQL granular permissions using T-SQL
- Exercise: Secure a warehouse in Microsoft Fabric
- Knowledge check
- Summary

By the end of this module, you'll be able to:

- 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.

ASSOCIATED CERTIFICATIONS & EXAM

There is no Associated Certification & Exam for this course, however, there is a learning path for this course. (Assessment Link)