

Delivering a Data Warehouse in the Cloud

Modality: Self-Paced Learning

Duration: 18 Hours

SATV Value:

CLC:

NATU:

SUBSCRIPTION: Learn, Master, Lite

About this course:

When you need to scale your data warehouse's storage and processing capabilities in minutes, not months, you need a cloud-based massively parallel processing solution.

In this computer science course, you will learn how to deploy, design, and load data using Microsoft's Azure SQL Data Warehouse, or SQL DW. You'll learn about data distribution, compressed in-memory indexes, PolyBase for Big Data, and elastic scale.

Note: To complete the hands-on elements in this course, you will require an Azure subscription. You can sign up for a free Azure trial subscription (a valid credit card is required for verification, but you will not be charged for Azure services). Note that the free trial is not available in all regions. It is possible to complete the course and earn a certificate without completing the hands-on practices.

Course Objective:

- Choosing a massively parallel processing architecture for a cloud-based data warehouse.
- Designing tables and indexes to efficiently distribute data in tables across many nodes.
- Loading data from a variety of sources, querying using PolyBase, securing and recovering data, and integrating into Big Data environments.

Audience:

- Data Analyst
- Programmers

Prerequisite:

- Familiarity with database concepts and basic SQL query syntax Familiarity with the reporting and analytics needs of users A willingness to learn actively and persevere when troubleshooting technical problems is essential

Course Outline:

Module 1: Introducing SQL Data Warehouse

- Introducing SQL Data Warehouse
- Provisioning and Configuring SQL DW
- Reading
- Lab 1
- Module Review and Assessment

Module 2: Designing and Querying Data Warehouses

- Table Design and Implementation
- Partitioning Tables
- Indexes and Statistics
- Monitoring Queries
- Reading
- Lab 2
- Module Review and Assessment

Module 3: Integrating and Ingesting Data

- Loading Data
- Integrating with other Azure and third-party tools
- Migrating to SQL DW
- Other data movement and load options
- Reading
- Lab 3
- Module Review and Assessment

Module 4: Managing Data Warehouses

- SQL DW Performance
- SQL DW Security
- Managing Compute
- Monitoring SQL DW Workloads with DMVs
- SQL DW Backups
- Reading
- Lab 4
- Module Review and Assessment

Final Exam and Survey

- Final Exam?