

Updating Your Skills to SQL Server 2017 (MS-10998)

Modality: Virtual Classroom

Duration: 2 Days

SATV Value: 2

About this course:

The trainer-led course is carefully put together for experts of database who are looking to polish their skills by learning the new ones. The newly learned skills will help in to cover SQL Server 2017.

Course Objective:

The course aims to provide all the significant knowledge and skills regarding SQL Server 2017 to database professionals so that they are proficient in:

- Key component of SQL Server 2017 and capabilities
- Understand performance, availability, and scalability by defining the advanced features of SQL Server
- SQL Server Reporting and BI
- SQL Server OLAP
- SQL Server data access along with its new features
- SQL Server on Linux Functionality

Audience:

- The main audience this course is set to be database gurus with expertise in SQL Server 2016
- SQL Server 2016 MCSAs who wants to prepare for the exam SQL Server 2017 certification

Prerequisite:

- Students should have knowledge about creating and managing database
- Should be able to manage data warehouse
- Experience with BI (Business Intelligence) solutions with SQL Server 2016

- Should have know-how of operating system and networking of windows server
- Familiar with Microsoft Office 2016

Course Outline:

Module 1: Introduction to SQL Server 2017

Module Goal: Describe key capabilities and components of SQL Server 2017

Lessons

- Overview of SQL Server 2017
- Functionality across versions

After completing this module, students will be able to:

- Describe the edition scale limits
- Explain the consistent functionality across versions

Module 2: What's new in SQL Server Performance, Scalability, and Availability.

This module introduces the performance enhancements provided by Adaptive Query Processing and Automatic Tuning, as well as the scalability and availability enhancements provided by new Availability Group architectures, including Read-Scale Availability Groups and Availability Groups with SQL Server on Linux

Lessons

- Adaptive query processing
- Automatic tuning
- Availability Scalability

Lab : Performance and availability ? adaptive query processing

- Interleaved execution
- Batch mode memory grant feedback
- Batch mode adaptive joins

After completing this module, students will be able to:

- Describe adaptive query processing
- Describe automatic plan correction
- Describe availability group architectures
- Describe always on availability groups for Linux

- Describe load balancing of readable secondary replicas
- Describe petabyte-scale data warehousing

Module 3: What's New in SQL Server data Access

SQL Server 2017 introduces SQL Graph which enables you to define the relationships between your data items in a table rather than calculating them during a query, reducing the query cost and simplifying your data structure.

Lessons

- SQL Graph

Lab : SQL Graph

- Create a Graph database
- Query a Graph database

After completing this module, students will be able to:

- Describe SQL Graph

Module 4: What's new in SQL Server Reporting and BI

This module describes what's new in SQL Server reporting and BI.

Lessons

- Power BI report Server
- Reporting Services update

Lab : Reporting and BI

- Deploy Power BI report server
- Add commenting to a report

After completing this module, students will be able to:

- Explain what Power BI report server is
- Use Power BI report server
- Create a Power BI report for Power BI report server

Module 5: New and Enhanced Features in SQL Server Analysis Services

This module introduces new and enhanced features in SQL Server Analysis Services, with particular emphasis on the tabular data model.

Lessons

- Tabular model updates

Lab : Ragged hierarchies

- View existing reports
- Hide blank members

After completing this module, students will be able to:

- Describe the new features of tabular data models

Module 6: New and Enhanced data Analytics Features

This module introduces new and enhanced data analytics features.

Lessons

- New and enhanced data analytics features

Lab : Data analytics with Python

- Enable external script execution
- Run Python scripts

After completing this module, students will be able to:

- Describe the new and enhanced data analytics features.

Module 7: What's new in SQL Server in the Cloud

Organizations want the best value from a mixture of cloud services and their existing investment in on-premises hardware and software. This module covers a comparison between the features of Microsoft Azure SQL Database and Microsoft SQL Server 2017, as well as new features that make it easier for you to migrate databases from on-premises SQL Server instances to Azure SQL Database.

Lessons

- Azure SQL database features
- Managed Instances

Lab : Managed instances

After completing this module, students will be able to:

- Explain the different features available in Azure SQL database and SQL Server 2017
- Describe Azure managed instances

Module 8: SQL Server on Linux

This module covers the features of SQL Server on Linux, as well as the process for deploying SQL Server on Linux and using Docker.

Lessons

- SQL Server on Linux
- Deploying SQL Server on Linux

Lab : SQL Server in Docker containers

- Deploy a SQL Server Docker image
- Run a SQL Server instance inside a Docker container
- Connect to a SQL Server Instance running in a Docker container

After completing this module, students will be able to:

- Describe the features of SQL Server on Linux
- Describe SQL Server on Linux deployment
- Deploy SQL server in a Docker container.