

Document Generated: 12/18/2025

Learning Style: On Demand

Technology:

Difficulty: Intermediate

Course Duration: 7 Hours

SQL Server Core 2016



About this course:

In this course, the student will be exposed to the latest and newest features that SQL Server 2016 has to offer. The student will learn about data masking, temporal tables, row level security, Azure cloud technology, stretch database configuration, live query statistics and much more. With this experience, the student will be able to configure, manage, deploy the latest features that are only available in SQL Server 2016 and as a result gain an advantage over the other IT professionals

Course Objective:

- Describe the high level architectural overview of SQL Server and its various

components.

- Describe the SQL Server execution model, waits and queues.
- Describe core I/O concepts, Storage Area Networks and performance testing.
- Describe architectural concepts and best practices related to data files for user databases and TempDB.
- Describe architectural concepts and best practices related to Concurrency, Transactions, Isolation Levels and Locking.
- Describe architectural concepts of the Optimizer and how to identify and fix query plan issues.
- Describe architectural concepts, troubleshooting scenarios and best practices related to Plan Cache.
- Describe architectural concepts, troubleshooting strategy and usage scenarios for Extended Events.
- Explain data collection strategy and techniques to analyze collected data.
- Understand techniques to identify and diagnose bottlenecks to improve overall performance.

Audience:

- The primary audience for this Microsoft SQL Server 2016 Training Course is individuals who administer and maintain SQL Server databases and are responsible for optimal performance of SQL Server instances that they manage. These individuals also write queries against data and need to ensure optimal execution performance of the workloads.
- The secondary audiences for this Microsoft SQL Server 2016 Training Course are individuals who develop applications that deliver content from SQL Server databases.

Prerequisite:

In addition to their professional experience, students who attend this training should already have the following technical knowledge:

- Basic knowledge of the Microsoft Windows operating system and its core functionality.
- Working knowledge of database administration and maintenance
- Working knowledge of Transact-SQL.

Course Outline:

Here is the course outline for this course:

- Chapter 01 - Getting Started
- Chapter 02 - SSMS and Data Tools
- Chapter 03 - Installation
- Chapter 04 - Server Configuration
- Chapter 05 - Using Management Studio
- Chapter 06 - Writing and Executing Queries

