

# **Updating Your Skills to SQL Server 2016 - MOC On Demand (MS-10986)**

**Modality:** On Demand

**Duration:** 2 Days

**SATV Value:** 2

## **About this course:**

This is Official On-Demand course of Microsoft that is reachable for 90 days from the date of demand of this course if you have a yearly membership, or course buys independently. Access to this course will lapse after 90 days of enlistment.

This on-demand course gives understudies moving from prior arrivals of SQL Server with an overview to the new features in SQL 2016 Server. Learner or experts can refresh their SQL Server abilities with this overview to the new features of SQL 2016 Server. You'll get familiar with the new features for security, performance, scalability and availability, Power BI and reporting, SQL Server OLAP, and data access, and you'll find out about the new functionality of SQL Server cloud.

## **Salary Estimate:**

The normal pay for a SQL Server Database Administrator is \$82,000 annually.

## **Course Objective:**

After finalizing this course, learners will be able to:

1. Describe key components and capabilities of SQL 2016 Server
2. Describe enhanced and new features in the performance of SQL Server
3. Describes enhanced and new features in the security of SQL Server
4. Describe new Scalability and Availability in SQL Server
5. Describe enhanced and new features in PowerBI and reporting in SQL 2016 Server
6. Describe enhanced and new features of data access

7. Describe enhanced and new SQL Server OLAP features
8. Describe new functionality of SQL Server cloud

## Targeted Audience:

This course is designed for:

Existing professionals of databases with SQL Server 2014 experience and also who need to upgrade their SQL Server 2016 skills.

## Prerequisites:

In addition to the experience of their expert, understudies who go to this preparation should already have the accompanying specialized information:

- Experience in managing and building database, business intelligence (BI), and data warehouse solutions with SQL Server 2014.
- Awareness with Microsoft SharePoint Server 2013 and Microsoft Excel.
- Recognition with the Windows Server 2012 R2 networking and operating system.

## Recommended prerequisites courses:

Inquiring Data with Transact-SQL - MOC On-Demand (MS-20761)

Managing Microsoft SQL 2014 Server Databases - MOC On-Demand (MS-20462)

## Course Outline:

### Module 1: Introduction to SQL Server 2016

Describe key capabilities and components of SQL Server 2016

## Lessons

- Overview of SQL Server 2016
- SQL Server 2016 Editions and Components
- Installing SQL Server 2016
- SQL Server Management Studio Enhancements

## Lab : Exploring SQL Server 2016

After completing this module, you will be able to:

- Describe the key elements of SQL Server 2016
- Describe the components and editions of SQL Server 2016
- Install SQL Server 2016
- Describe the enhancement to SQL Server Management Studio

## Module 2: What's New in SQL Server Performance

This module describes new and enhanced features in SQL Server performance.

## Lessons

- Operational Analytics
- In-memory OLTP Enhancements
- Query Store
- Live Query Statistics
- Native JSON
- Temporal Tables

## Lab : Implementing SQL Server 2016 Performance Improvements

After completing this module, you will be able to:

- Describe the use of Columnstore indexes for operational analytics
- Describe the enhancements to in-memory OLTP
- Use the query data store
- Use Native JSON
- Describe and use temporal tables

## Module 3: What's New in SQL Server Security?

This module describes new and enhanced features in SQL Server security.

## Lessons

- Using Always Encrypted
- Row-level Security
- Dynamic Data Masking

## Lab : Implementing SQL Server 2016 Security Improvements

After completing this module, you will be able to:

- Implement a logical design for a data warehouse
- Implement a physical design for a data warehouse

## Module 4: What's New in SQL Server Availability and Scalability?

This module introduces what's new in SQL Server Availability and Scalability.

### Lessons

- Enhanced AlwaysOn Availability Groups
- What's New with tempdb?
- Use Windows Server 2016 with SQL Server 2016
- PowerShell 5.0

## Lab : Monitoring tempdb

After completing this module, you will be able to:

- Describe the enhancements to AlwaysOn availability groups
- Describe what's new in database caching
- Use Windows Server 2016 with SQL Server 2016

## Module 5: What's New in SQL Server Reporting and BI

This module introduces reporting and BI enhancements and new features in SQL Server 2016.

### Lessons

- Reporting Services Enhancements
- PowerBI Enhancements
- Mobile Report Publisher

## Lab : Implementing PowerBI

After completing this module, you will be able to:

- Describe the enhancements to reporting services
- Describe the enhancements to PowerBI

## Module 6: What's New in SQL Server Data Access?

At the end of this module you will be able to describe data access enhancements in SQL Server 2016.

## Lessons

- PolyBase
- What's new in Integration Services
- Working with SSIS and Azure

### Lab : Exploring the new features of SQL Server Integrated services (SSIS)

After completing this module, you will be able to:

- Describe and install PolyBase
- Describe enhancements to SSIS

## Module 7: New and Enhanced Features in SQL Server OLAP

This module describes enhancements in SQL Server OLAP.

### Lessons

- New and Enhanced Features in SQL Server OLAP
- What's New in SQL Server Analysis Services

### Lab : OLAP with SQL Server

After completing this module, you will be able to:

- Describe new and enhanced features in SQL Server OLAP
- Describe new and enhanced features in SQL Server analysis services

## Module 8: What's New for SQL Server in the Cloud?

This module describes new SQL Server cloud functionality.

### Lessons

- Stretch Database
- Enhanced Backups to Azure
- Introduction to SQL Server 2016 Hybrid Cloud
- What's New in SQL Server Azure Database

### Lab : Using Stretch Database

After completing this module, you will be able to:

- Describe stretch databases and why you would use them
- Understand the enhanced backup options
- Be aware of SQL Server hybrid cloud
- Describe what's new in SQL Server Azure database

