



Upgrading Your SQL Server Skills to Microsoft SQL Server 2014

This five-day instructor-led course teaches participants how to use the enhancements and new features that have been added to SQL Server and the Microsoft data platform since the release of SQL Server 2008. The course focuses on teaching individuals how to use SQL Server 2014 product features and other Microsoft data platform components.

Who Should Attend:

This course is intended for database and business intelligence (BI) professionals who are familiar with SQL Server 2008 and want to update their skills to SQL Server 2014, and become familiar with related Microsoft data technologies.

Course Prerequisites:

Before attending this course, participants should have, in addition to their professional experience:

- Experience building and managing database, data warehouse, and business intelligence (BI) with SQL Server 2008
- Familiarity with Windows Server 2012 operating system and networking
- Familiarity with Microsoft Excel and Microsoft SharePoint Server 2013

Course Objectives:

After completing this course, participants will be able to:

- Describe key features and capabilities of SQL Server 2014
- Leverage new and enhanced features to develop database in SQL Server 2014
- Use in-memory database capabilities in SQL Server 2014
- Manage SQL Server 2014 by using dynamic management views and PowerShell
- Implement security in SQL Server 2014
- Implement high-availability and data recovery techniques in SQL Server 2014
- Use SQL Server 2014 Integration Services
- Use SQL Server 2014 Data Quality Services
- Use SQL Server 2014 Master Data Services
- Manage SQL Server 2012 Agent and Jobs
- Implement a tabular data model in SQL Server 2014 Analysis Services
- Implement a Self-Service BI solution with Microsoft Excel 2013
- Describe key elements of cloud solutions for data
- Implement a database in Microsoft Azure SQL Database
- Implement a SQL Server database in a Microsoft Azure virtual machine
- Implement a Big Data solution with Microsoft Azure HDInsight & the Microsoft Azure Marketplace

Course Code: 10977B
Course Duration: 5 Days

Course Summary

- Module 1:** Introduction to SQL Server 2014
- Module 2:** What's New in SQL Server Database Development
- Module 3:** In-Memory Database Capabilities
- Module 4:** Scripting SQL Server 2014
- Module 5:** Implementing Security in Microsoft SQL Server 2014
- Module 6:** High Availability and Data Recovery Enhancements
- Module 7:** New & Enhanced Features in SQL Server Integration Services
- Module 8:** Data Quality Services
- Module 9:** Master Data Services
- Module 10:** SQL Server 2014 Reporting Services
- Module 11:** Implementing an Analysis Services Tabular Data Model
- Module 12:** Self-Service BI with Microsoft Excel
- Module 13:** Introduction to Cloud Data Solutions
- Module 14:** Microsoft Azure SQL Database
- Module 15:** SQL Server in Microsoft Azure Virtual Machines
- Module 16:** Implementing Big Data Solutions

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Call 1300 927 394 to register for this course today as places are strictly limited.



Course Outline

Module 1: Introduction to SQL Server 2014

This module introduces key features of SQL Server 2014

Lessons

- Overview of SQL Server 2014
- SQL Server 2014 Editions and Components
- Installing SQL Server 2014
- Enhancements to SQL Server Management Studio

Lab

- Exercise 1: Reviewing Installed Components
- Exercise 2: Using SQL Server Management Studio

Module 2: What's New in SQL Server Database Development

This module describes enhancements to Transact-SQL and other database development features since SQL Server 2008.

Lessons

- Transact-SQL Enhancements
- New and Enhanced Transact-SQL Functions
- Enhancements to Spatial Data Support
- Storing & Querying Documents with SQL Server 2014

Lab

- Exercise 1: Using Sequence Objects
- Exercise 2: Using the THROW statement
- Exercise 3: Implementing Paging
- Exercise 4: Querying Documents

Module 3: In-Memory Database Capabilities

This module describes how SQL Server 2014 enables you to leverage in-memory technologies to enhance database performance

Lessons

- The Buffer Pool Extension
- Columnstore Indexes
- Memory-Optimised Tables

Lab

- Exercise 1: Enabling the Buffer Pool Extension
- Exercise 2: Creating Columnstore Indexes
- Exercise 3: Working with Memory-Optimised Tables

Module 4: Scripting SQL Server 2014

This module describes how you can use dynamic management views and PowerShell to script administrative tasks in SQL Server 2014

Lessons

- New and Enhanced Dynamic Management Views
- Using PowerShell to Manage SQL Server

Lab

- Exercise 1: Using Dynamic Management Views
- Exercise 2: Using PowerShell

Module 5: Implementing Security in Microsoft SQL Server 2014

This module describes the enhancements to security features since SQL Server 2008

Lessons

- Security Management Enhancements
- Contained Databases

Lab

- Exercise 1: Implementing User-Defined Server Roles
- Exercise 2: Implementing Contained Databases

Module 6: High Availability and Data Recovery Enhancements

This module explains enhancements to SQL Server availability and data recovery features since SQL Server 2008.

Lessons

- AlwaysOn High Availability
- Enhancements to Data Recovery

Lab

- Exercise 1: Creating an AlwaysOn Availability Group
- Exercise 2: Using an AlwaysOn Availability Group
- Exercise 3: Observing Availability Group Failover Behaviour



Module 7: New and Enhanced Features in SQL Server Integration Services

This module describes enhancements to SQL Server Integration Services since SQL Server 2008.

Lessons

- Using the CDC Control Task for Incremental Data Loads
- Deploying and Operating SSIS Packages

Lab

- Exercise 1: Extracting Modified Data
- Exercise 2: Deploying and Operating an SSIS Package

Module 8: Data Quality Services

This module explains how to use the SQL Server 2014 Data Quality Services (DQS) to provide a computer assisted process for cleansing data values and identifying and removing duplicate data entities.

Lessons

- Introduction to Data Quality
- Using Data Quality Services to Cleanse Data
- Using Data Quality Services to Match Data

Lab

- Exercise 1: Creating a DQS Knowledge Base
- Exercise 2: Using a DQS Project to Cleanse Data
- Exercise 3: Using DQS in an SSIS Package

Module 9: Master Data Services

This module introduces Master Data Services and describes its key configuration options and how to import and export data.

Lessons

- Introduction to Master Data Service
- Implementing a Master Data Services Model
- Using the Master Data Services Add-in for Excel

Lab

- Exercise 1: Creating a Basic Model
- Exercise 2: Editing a Model by Using the Master Data Services Add-in for Excel
- Exercise 3: Loading Data into a Model
- Exercise 4: Enforcing Business Rules
- Exercise 5: Consuming Master Data Services Data

Module 10: SQL Server 2014 Reporting Services

This module describes new and enhanced features in SQL Server Reporting Services.

Lessons

- Overview of Reporting Services
- Reporting Services and Microsoft SharePoint Server
- Introductions to Data Alerts

Lab

- Exercise 1: Viewing SharePoint Mode Configuration
- Exercise 2: Authoring, Publishing and Viewing a Report
- Exercise 3: Creating and Managing Data Alerts

Module 11: Implementing an Analysis Services Tabular Data Model

This module describes Analysis Services tabular data models and explains how to develop a tabular data model by using the SQL Server Data Tools for BI add-in for Visual Studio.

Lessons

- Introduction to Analysis Services Tabular Data Model Projects
- Creating a Tabular Model
- Using an Analysis Services Tabular Data Model in the Enterprise

Lab

- Exercise 1: Creating an Analysis Services Tabular Data Model Project
- Exercise 2: Configuring Columns and Relationships
- Exercise 3: Using Custom DAX expressions
- Exercise 4: Deploying an Analysis Services Tabular Data Model

Module 12: Self-Service BI with Microsoft Excel

This module introduces the self-service BI capabilities that can be delivered through Microsoft Excel 2013 and related technologies.

Lessons

- PowerPivot for Excel
- PowerPivot for SharePoint Server
- Power Query
- Power View
- Power Map
- Power BI for Office 365



Module 12: continued

Lab

- Exercise 1: Creating a Data Model with PowerPivot
- Exercise 2: Importing Data with Power Query
- Exercise 3: Visualising Data with Power View
- Exercise 4: Visualising Geographic Data with Power Map

Module 13: Introduction to Cloud Data Solutions

This module introduces some of the key Microsoft technologies that you can use to implement a cloud solution for data.

Lessons

- Overview of Cloud Computing
- Microsoft Azure Services for Data

Lab

- Exercise 1: Creating a Microsoft Azure Storage Account
- Exercise 2: Backing Up Database to Microsoft Azure

Module 14: Microsoft Azure SQL Database

This module introduces Microsoft Azure SQL Database, a Platform-as-a-Service (PaaS) solution for cloud-based relational database storage.

Lessons

- Introduction to Microsoft Azure SQL Database
- Microsoft Azure SQL Database Security
- Implementing and Managing Databases

Lab

- Exercise 1: Provisioning Microsoft Azure SQL Database
- Exercise 2: Configuring Microsoft Azure SQL Database Security
- Exercise 3: Migration a SQL Server Database to Microsoft Azure SQL Database

Module 15: SQL Server in Microsoft Azure Virtual Machines

This module explores how you can use Microsoft Azure virtual machines in which SQL Server is installed to create a cloud-based solution for data.

Lessons

- Introduction to Microsoft Azure Virtual Machines
- Microsoft Azure Virtual Machine Connectivity and Security
- Creating Databases in a Microsoft Azure Virtual Machine

Lab

- Exercise 1: Creating a Microsoft Azure Virtual Machine
- Exercise 2: Configuring Virtual Machine Security and Connectivity
- Exercise 3: Creating Databases on a Virtual Machine

Module 16: Implementing Big Data Solutions

This module describes the main features of big data, and the Microsoft technologies that you can use to build big data analytical solutions. In particular, the module focuses on Microsoft Azure HDInsight and the Microsoft Azure Marketplace as core elements of the Microsoft solution for big data.

Lessons

- Introduction to Big Data
- Microsoft Azure HDInsight
- Consuming HDInsight Results in Excel
- Obtaining Data from the Windows Azure Marketplace

Lab

- Exercise 1: Provisioning an HDInsight Centre
- Exercise 2: Processing Data with HDInsight
- Exercise 3: Analysing Big Data in Excel
- Exercise 4: Obtaining Data from the Microsoft Azure Marketplace