



20462: Administering Microsoft® SQL Server® 2014 Databases

Duration: 5 Days

Method: Instructor-Led Training (ILT) | Live Online Training

Course Description

This course provides participants with the knowledge and skills to maintain a Microsoft SQL Server 2014 database. The course focuses on teaching individuals how to use SQL Server 2014 product features and tools related to maintaining a database. It covers the new features in SQL Server 2014, but also the important capabilities across the SQL Server data platform.

Target Audience

This course is intended for:

- Individuals who administer and maintain SQL Server databases. These individuals perform database administration and maintenance as their primary area of responsibility or work in environments where databases play a key role in their primary job.
- Individuals who develop applications that deliver content from SQL Server databases.
- Individuals who are interested in learning SQL Server 2012 or SQL Server 2014.

Prerequisites

To attend this course, candidates must have:

- Basic knowledge of the Microsoft Windows® operating system and its core functionality.
- Working knowledge of Transact-SQL.
- Working knowledge of relational databases.
- Some experience with database design.

Course Objectives

Upon successful completion of this course, attendees will be able to:

- Describe core database administration tasks and tools.
- Install and configure SQL Server 2014.
- Configure SQL Server databases and storage.
- Plan and implement a backup strategy.



Course Objectives *Continued*

- Restore databases from backups.
- Import and export data.
- Monitor SQL Server.
- Trace SQL Server activity.
- Manage SQL Server security.
- Audit data access and encrypt data.
- Perform ongoing database maintenance.
- Automate SQL Server maintenance with SQL Server Agent Jobs.
- Configure Database Mail, alerts, and notifications.

Course Topics

Module 1: Introduction to SQL Server 2014 Database Administration

- Database Administration Overview
- Introduction to the SQL Server Platform
- Database Management Tools and Techniques

Module 2: Installing and Configuring SQL Server 2014

- Planning SQL Server Installation
- Installing SQL Server 2014
- Post-Installation Configuration

Module 3: Working with Databases and Storage

- Introduction to Data Storage with SQL Server
- Managing Storage for System Databases
- Managing Storage for User Databases
- Moving Database Files
- Configuring the Buffer Pool Extension

Module 4: Planning and Implementing a Backup Strategy

- Understanding SQL Server Recovery Models
- Planning a Backup Strategy
- Backing up Databases and Transaction Logs
- Using Backup Options
- Ensuring Backup Reliability

Module 5: Restoring SQL Server 2014 Databases

- Understanding the Restore Process
- Restoring Databases
- Advanced Restore Scenarios
- Working with Point-in-Time Recovery

Module 6: Importing and Exporting Data

- Introduction to Transferring Data
- Importing and Exporting Table Data
- Copying or Moving a Database

Module 7: Monitoring SQL Server 2014

- Introduction to Monitoring SQL Server
- Dynamic Management Views and Functions
- Performance Monitor



Course Topics *Continued*

Module 8: Tracing SQL Server Activity

- Tracing SQL Server Workload Activity
- Using Traces

Module 9: Managing SQL Server Security

- Introduction to SQL Server Security
- Managing Server-Level Security
- Managing Database-Level Principals
- Managing Database Permissions

Module 10: Auditing Data Access and Encrypting Data

- Auditing Data Access in SQL Server
- Implementing SQL Server Audit
- Implementing SQL Server Audit

Module 11: Performing Ongoing Database Maintenance

- Ensuring Database Integrity
- Maintaining Indexes
- Automating Routine Database Maintenance

Module 12: Automating SQL Server 2014 Management

- Automating SQL Server Management
- Implementing SQL Server Agent Jobs
- Managing SQL Server Agent Jobs
- Managing Job Step Security Contexts
- Managing Jobs on Multiple Servers

Module 13: Monitoring SQL Server 2014 by Using Alerts and Notifications

- Monitoring SQL Server Errors
- Configuring Database Mail
- Configuring Operators, Alerts, and Notifications

LABS INCLUDED

