

20462 Administering Microsoft SQL Server Databases

Duration

Classroom Learning - 5 Day(s)

Online LIVE - 5 Day(s)

Overview

The course focuses on teaching individuals how to use SQL Server 2014 product features and tools related to maintaining a database.

Who Should Attend

The primary audience for this course is 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. The secondary audience for this course is individuals who develop applications that deliver content from SQL Server databases.

Outline

Lesson 1: Installing SQL Server 2014

- Introduction to the SQL Server Platform
- SQL Server Services and Configuration Options
- Considerations for Installing SQL Server
- Installing SQL Server 2014
- Lab : Installing SQL Server 2014

Lesson 2: Working with Databases

- Overview of SQL Server Databases
- Creating Databases
- Using Database Files and Filegroups
- Moving Database Files
- Buffer Pool Extension
- Lab : Creating and Configuring Databases

Lesson 3: SQL Server 2014 Recovery Models

- Backup Strategies
- Understanding SQL Server Transaction Logging
- Planning a SQL Server Backup Strategy
- Lab : Understanding SQL Server Recovery Models

Lesson 4: Backup of SQL Server 2014 Databases

- Backing up Databases and Transaction Logs
- Managing Database Backups
- Working with Backup Options
- Lab : Backing Up SQL Server Databases

Lesson 5: Restoring SQL Server 2014 Databases

- Understanding the Restore Process
- Restoring Databases
- Working with Point-in-Time Recovery
- Restoring System Databases and Individual Files
- Lab : Restoring SQL Server Databases

Lesson 6: Importing and Exporting Data

- Transferring Data To/From SQL Server
- Importing and Exporting Table Data
- Inserting Data in Bulk
- Deploying and Upgrading Data-tier Applications
- Lab : Importing and Exporting Data

Lesson 7: Authenticating and Authorizing Users

- Authenticating Connections to SQL Server
- Authorizing Logins to Access Databases
- Authorization Across Servers
- Partially Contained Databases
- Lab : Authenticating Users

Lesson 8: Assigning Server and Database Roles

- Working with Server Roles
- Working with Fixed Database Roles
- Creating User-defined Database Roles
- Lab : Assigning Server and Database Roles

Lesson 9: Authorizing Users to Access Resources

- Authorizing User Access to Objects
- Authorizing Users to Execute Code
- Configuring Permissions at the Schema Level
- Lab : Authorizing Users to Access Resources

Lesson 10: Protecting Data by Using Encryption and Auditing

- Options for Auditing Data Access in SQL Server
- Implementing SQL Server Audit
- Managing SQL Server Audit
- Protecting Data by Using Encryption
- Lab : Using Auditing and Encryption

Lesson 11: Automating SQL Server 2014 Management

- Automating SQL Server Management
- Working with SQL Server Agent
- Managing SQL Server Agent Jobs
- Multi-Server Management
- Lab : Automating SQL Server Management

Lesson 12: Configuring Security for SQL Server Agent

- Understanding SQL Server Agent Security
- Configuring Credentials
- Configuring Proxy Server Accounts
- Lab : Configuring Security for SQL Server Agent

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

- Configuring Database Mail
- Monitoring SQL Server Errors
- Configuring Operators, Alerts, and Notifications
- Lab : Monitoring SQL Server by Using Alerts and Notifications

Lesson 14: Performing Ongoing Database Maintenance

- Ensuring Database Integrity
- Maintaining Indexes
- Automating Routine Database Maintenance
- Lab : Performing Ongoing Database Maintenance

Lesson 15: Tracing Access to SQL Server 2014

- Capturing Activity by Using SQL Server Profiler
- Improving Performance by Using the Database Engine Tuning Advisor
- Working with Tracing Options
- Distributed Replay
- Monitoring Locks
- Lab : Tracing Access to SQL Server

Lesson 16: Monitoring SQL Server 2014

- Monitoring Activity
- Capturing and Managing Performance Data
- Analyzing Collected Performance Data
- SQL Server Utility
- Lab : Monitoring SQL Server