

This five-day course provides students with the knowledge and skills to maintain a Microsoft SQL Server 2008 R2 database. The course focuses on teaching individuals how to use SQL Server 2008 R2 product features and tools related to maintaining a database.

Course Objectives:

- Explain SQL Server 2008 R2 architecture, resources requirements and perform pre-checks of I/O subsystems.
- Plan, install and configure SQL Server 2008 R2.
- Backup and restore databases.
- Import and export wizards and explain how they relate to SSIS.
- Use BCP and BULK INSERT to import data.
- Manage security.
- Assign, configure fixed database roles and create and assign user defined database roles.
- Configure and assign permissions.
- Implement SQL Server 2008 R2 Audits.
- Manage SQL Server 2008 R2 Agent and Jobs.
- Configure database mails, alerts and notifications.
- Configure SQL Profiler Traces and Use the Database Tuning Advisor.
- Monitor data by using Dynamic Management Views.
- Execute multi-server queries and configure a central management server.
- Deploy a data-tier-application.

Audience: Individuals who administer and maintain SQL Server databases.

Prerequisites: Working knowledge of Transact-SQL, relational databases and some experience with database design.

Number of Days: 5 days

<p>1 Introduction to SQL Server 2008 R2 and its Toolset Introduction to SQL Server Platform Working with SQL Server Tools Configuring SQL Server Services</p>	<p>3 Installing and Configuring SQL Server 2008 R2 Preparing to Install SQL Server 2008 R2 Installing SQL Server 2008 R2 Upgrading and Automating Installation</p>
<p>2 Preparing Systems for SQL Server 2008 R2 Overview of SQL Server 2008 R2 Architecture Planning Server Resource Requirements Pre-installation Testing for SQL Server 2008 R2</p>	<p>4 Working with Databases Overview of SQL Server Databases Working with Files and Filegroups Moving Database Files</p>

<p>5 Understanding SQL Server 2008 R2 Recovery Models Backup Strategies Understanding SQL Server Transaction Logging Planning a SQL Server Backup Strategy</p> <p>6 Backup of SQL Server 2008 R2 Databases Backing up Databases and Transaction Logs Managing Database Backups Working with Backup Options</p> <p>7 Restoring SQL Server 2008 R2 Databases Understanding the Restore Process Restoring Databases Working with Point-in-time Recovery Restoring System Databases and Individual Files</p> <p>8 Importing and Exporting Data Transferring Data To/From SQL Server 2008 R2 Importing & Exporting Table Data Inserting Data in Bulk</p> <p>9 Authenticating and Authorizing Users Authenticating Connections to SQL Server Authorizing Logins to Access Databases Authorization Across Servers</p> <p>10 Assigning Server and Database Roles Working with Server Roles Working with Fixed Database Roles Creating User-defined Database Roles</p> <p>11 Authorizing Users to Access Resources Authorizing User Access to Objects Authorizing Users to Execute Code Configuring Permissions at the Schema Level</p> <p>12 Auditing SQL Server Environments Options for Auditing Data Access in SQL Server Implementing SQL Server Audit Managing SQL Server Audit</p>	<p>13 Automating SQL Server 2008 R2 Management Automating SQL Server Management Working with SQL Server Agent Managing SQL Server Agent Jobs</p> <p>14 Configuring Security for SQL Server Agent Understanding SQL Server Agent Security Configuring Credentials Configuring Proxy Accounts</p> <p>15 Monitoring SQL Server 2008 R2 with Alerts and Notifications Configuration of Database Mail Monitoring SQL Server Errors Configuring Operators, Alerts and Notifications</p> <p>16 Performing Ongoing Database Maintenance Ensuring Database Integrity Maintaining Indexes Automating Routine Database Maintenance</p> <p>17 Tracing Access to SQL Server 2008 R2 Capturing Activity using SQL Server Profiler Improving Performance with the Database Engine Tuning Advisor Working with Tracing Options</p> <p>18 Monitoring SQL Server 2008 R2 Monitoring Activity Capturing and Managing Performance Data Analyzing Collected Performance Data</p> <p>19 Managing Multiple Servers Working with Multiple Servers Virtualizing SQL Server Deploying and Upgrading Data-Tier Applications</p> <p>20 Troubleshooting Common SQL Server 2008 R2 Admin Issues SQL Server Troubleshooting Methodology Resolving Service-related Issues Resolving Concurrency Issues Resolving Login and Connectivity Issues</p>
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