

Introduction to SQL Server 2008 Administration

Duration: 5 days

Course Description: This instructor-led course provides students with the knowledge and skills to administer SQL Server 2008. The course focuses on support tasks, including installation, upgrading, backups, restores, monitoring, and auditing.

Audience: Intended for database support personnel and database administrators who have basic Windows navigation skills

Prerequisites: Before attending this course, students must have Windows XP, Vista, Windows 7, or Window Server 2003/2008 basic knowledge.

Topics:

MODULE 1: INSTALLING SQL SERVER 2008

- Planning to Install SQL Server 2008.
- Installing SQL Server 2008.
- Post-Installation Tasks.

Lab: Installing SQL Server 2008

- Install a Named Instance of SQL Server.
- After completing this module, students will be able to:
- Install a named instance of SQL Server 2008.
- Troubleshoot installation issues.

MODULE 2: MANAGING SQL SERVER 2008

- Managing SQL Server.
- Metadata Retrieval.
- SQL Server Configuration Manager
- SQL Server Management Studio
- sqlcmd utility
- Dedicated Administrator Connection
- Powershell
- system stored procedures
- catalog views
- dynamic management views
- built-in functions
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Lab: Managing SQL Server 2008

- Manage SQL Server Services.

- Use Dedicated Administrator Connection.
- Retrieve Metadata.

MODULE 3: DATABASE MANAGEMENT

- Disk Configuration.
- Databases and Filegroups.
- Managing Databases.
- Data Compression.

Lab: Database Management

- Create a Database.
- Add a Filegroup to an Existing Database.
- Delete a Database.

MODULE 4: SECURITY

- Overview of Security.
- Accessing SQL Server.
- Advanced Security.
- Describe Principals and Securables.
- Create schemas.
- Create logins.
- Create database users.
- Create roles.
- Assign principals to roles.
- Impersonation and delegation.
- Create linked servers.

Lab: Security

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- Modify SQL Server Authentication Mode.
- Configure Permissions.

MODULE 5: DISASTER RECOVERY

- Disaster Recovery Overview.
- Disaster Recovery Using Full Database Backups.
- Disaster Recovery Using Differential Database Backups.
- Disaster Recovery Using Transaction Log Backups.
- Disaster Recovery Using File and Filegroup Backups.
- Advanced Disaster Recovery.

Lab: Disaster Recovery

- Full Database Backups
- Differential Database Backups
- Transaction Log Backups
- File and Filegroup Backups
- Advanced Disaster Recovery

MODULE 6: AUTOMATION AND MAINTENANCE

- SQL Server Agent Automation.
- Advanced SQL Server Automation.
- Database Maintenance.
- Configure operators.
- Configure Database Mail.
- Configure SQL Server Agent security using predefined roles.
- Create a master and target server for multiserver administration.
- Check for corruption in a database.

Lab: Automation and Maintenance

- Create a Job.
- Create an Alert.
- Export Data using the Import and Export Wizard.
- Create a Maintenance Plan.

MODULE 7: INDEXING

- Optimizing Data Retrieval.

- Types of Indexes.
- Creating, Altering, and Deleting Indexes.
- Index Maintenance.

Lab: Indexing

- Create Indexes.
- Remove Fragmentation.
- Delete Indexes.

MODULE 8: MONITORING AND PERFORMANCE TUNING

- Areas to Monitor.
- Monitoring Tools.
- Data Collection.
- Resource Governor.

Lab: Monitoring and Performance Tuning

- Create a SQL Server Profiler Trace.
- Create a Table from Trace Data.
- Identify Missing Indexes Using Database Engine Tuning Advisor.

MODULE 9: AUDITING SQL SERVER 2008 LESSONS

- Triggers.
- Service Broker and Event Notifications.
- Policy-Based Management.
- Change Data Capture.
- Change Tracking.
- SQL Server Audit.

Lab: Auditing SQL Server 2008

- Create a DDL Trigger.

MODULE 10: UPGRADING TO SQL SERVER 2008

- Pre-Upgrade Tasks.
- Upgrade Options.
- Post-Upgrade Tasks.