

SQL Server® 2008 Database Administration: Hands-On - 4 Days

Course 138 Overview

- You Will Learn How To**
- Administer SQL Server 2008 with SQL Server Management Studio and Transact-SQL
 - Build databases and upgrade from prior versions
 - Secure the server through logins and permissions management
 - Automate administrative activities with SQL Server Agent multistep jobs
 - Perform routine maintenance to correct fragmentation and database corruption
 - Identify problems and monitor server health
- Course Benefits** SQL Server 2008 provides a robust platform that enables organizations to run their most demanding, mission-critical applications. It is essential that database administrators know how to manage this complex platform correctly. This hands-on course provides you with the skills you need to install SQL Server, create and modify storage structures, manage security, and back up and recover databases.
- Who Should Attend** Those responsible for administering SQL Server 2008. A basic understanding of SQL Server 2008 or experience at the level of Course 137, "SQL Server 2008 Comprehensive Introduction," is assumed.
- Hands-On Training** Throughout this course, a series of extensive hands-on exercises provides you with practical experience administering SQL Server 2008. Exercises include:
- Administering SQL Server 2008 with graphical tools and Transact-SQL
 - Creating databases
 - Implementing security for logins, databases and objects
 - Backing up and restoring databases
 - Managing transaction logs
 - Configuring Database Mail
 - Carrying out routine database maintenance
 - Monitoring server health

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Course 138 Outline

SQL Server 2008 Installation and Features

Installing SQL Server

- Choosing installation options
- Upgrading from previous versions
- Applying a service pack

Essential tools

- SQL Server Management Studio
- Transact-SQL
- SQL Server Configuration Manager
- Policy-based Management

Creating and Managing Databases

Storage structures

- Examining disk structures
- Creating databases and transaction logs
- Defining file groups

Managing database space

- Permitting automatic database growth
- Adding database files to expand databases
- Specifying database options

Moving databases

- Scripting objects and moving data with Transact-SQL
- Detaching and attaching databases

Implementing Server and Database Security

Creating logins

- Contrasting Windows and SQL Server authentication
- Authorizing logins
- Making logins members of server roles
- Enforcing password policy

Authorizing database access

- Adding users
- Defining new roles
- Delegating privileges with predefined roles
- Assigning users to roles
- Handling mismatched logins

Managing Permissions

Granting database-scoped privileges

- Permitting object creation
- Granting blanket permissions

Schemas

- Designing schemas
- Assigning a default schema

Handling object-level permissions

- Limiting object access
- Meeting complex permission requirements with roles
- Examining permission hierarchies

Recovering from Disasters

Backing up databases

- Choosing a recovery model
- Transaction log architecture
- Performing full, log and differential backups
- Reclaiming transaction log space

Restoring databases

- Recovering user databases
- Testing recovery scenarios

Automating Tasks with Jobs and Alerts

The SQL Server Agent

- Configuring the agent
- Setting up Database Mail

Multistep jobs

- Defining jobs to handle routine tasks
- Creating alerts and operators
- Associating alerts with jobs

Performing Database Maintenance

Fragmentation and database corruption

- Identifying and curing fragmentation
- Finding and repairing database corruption

Database Maintenance Plan Wizard

- Choosing maintenance tasks
- Scheduling plan execution

Monitoring SQL Server

Ad hoc monitoring

- Identifying problems with Activity Monitor
- Querying Dynamic Management Objects

The Management Data Warehouse

- Configuring data collection
- Reviewing the reports