

SQL Server® 2005 Database Administration: Hands-On - 5 Days

Course 132 Overview

- You Will Learn How To**
- Administer SQL Server 2005 with SQL Server Management Studio and Transact-SQL
 - Create and manage databases, transaction logs and database snapshots
 - Implement login and database security and manage permissions
 - Develop a backup and recovery strategy
 - Manage complex multistep jobs with SQL Server Agent
 - Deploy and manage transactional replication

Course Benefits Administration of your organisation's SQL Server databases requires taking advantage of the scalability, availability and security features of SQL Server 2005. This course offers extensive experience using SQL Server 2005 tools to install SQL Server, create and modify storage structures, back up and recover databases, and manage security.

Who Should Attend Those interested in SQL Server administration. Course 131, "SQL Server 2005 Comprehensive Introduction", or equivalent experience is assumed, along with a working knowledge of computers and a familiarity with Windows at the level of Course 595, "Windows Server 2003 Comprehensive Introduction".

Hands-On Training Throughout this course, a series of extensive hands-on exercises provides you with practical experience administering SQL Server 2005. Exercises include:

- Administering SQL Server 2005 with graphical tools and Transact-SQL
- Creating databases
- Implementing security for logins, databases and objects
- Backing up and restoring databases
- Recovering the master database
- Maintaining a hot standby server with mirroring
- Configuring Database Mail
- Managing transactional replication

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Course 132 Outline

Getting Started with SQL Server 2005

Components

- Services
- Editions
- System and user databases

Essential tools

- SQL Server Management Studio
- Transact-SQL
- Surface Area Configuration
- SQL Server Configuration Manager

Installing SQL Server

SQL Server 2005 installation

- Choosing installation options
- Employing multiple instances
- Upgrading from previous versions
- Applying a Service Pack

Managing Databases

Disc structures

- Examining storage structures
- Creating databases and transaction logs

Space management strategies

- Handling dynamic database growth
- Reclaiming unused space

Moving databases

- Detaching and attaching databases
- Copying databases with the Copy Database Wizard

Controlling Server and Database

Security

Login security

- Contrasting Windows and SQL Server authentications
- Authorising logins
- Making logins members of server roles
- Enforcing password policy

Database security

- Designing schemas
- Adding users
- Defining NEW roles
- Delegating privileges with predefined roles
- Assigning users to roles

Permissions

- Granting server, database, schema-scoped and object permissions
- Interaction of roles and permissions

Migrating Data

SQL Server Integration Services

- Packages
- Control flows
- Data flows
- Connections
- Business Intelligence Development Studio

Building simple packages

- Importing data from Access
- Exporting a table to Excel

Backup and Recovery

Planning for and recovering from disasters

- Transaction log architecture
- Choosing a recovery model
- Performing full, log and differential backups
- Recovering system and user databases

Implementing database mirroring

- Selecting a mirroring architecture
- Configuring the mirror and witness servers
- Monitoring database mirroring
- Taking a snapshot of the mirror

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

Deploying Replication

Replication concepts

- Publish/subscribe metaphor
- Replication types
- Replication agents

Managing transactional replication

- Configuring the Publisher and Distributor
- Creating publications
- Subscribing to publications

Monitoring SQL Server

- Identifying problems with Activity Monitor
- Querying Dynamic Management Objects
- Deploying the Performance Dashboard
- Analysing trends with the SQL Server Health and History tool (SQLH2)