Duration: 3 days

Overview

This three-day instructor-led course provides students with the knowledge and skills to upgrade their SQL Server 2000 database administration (DBA) skills to SQL Server 2008 DBA skills. Please note that there is no certification exam related to this course.

Audience Profile

This course is intended for IT professionals who administer and maintain SQL Server databases.

Prerequisites

Before attending this course, students must have experience developing or administering SQL Server 2000 databases.

Delegates will learn how to

- Describe the new features of SQL Server 2008.
- Plan for a SQL Server 2008 installation, upgrade, and migration.
- Understand SQL Server data types.
- Manage SQL Server 2008.
- Secure a SQL Server 2008 database.
- Prepare for and recover from potential database disasters.
- Maintain availability to their SQL Server data even through server downtime.
- Configure replication of SQL Server 2008 databases.
- Implement policy-based management.
- Monitor database activity.
- Monitor and manage database performance.

Course Outline

Module 1: An Introduction to SQL Server 2008

This module will help students to understand the new features and overall architecture of SQL Server 2008.

- Lesson 1: The Evolution of SQL Server
- Lesson 2: SQL Server 2008 Architectural Components

Module 2: Installing and Upgrading to SQL Server 2008

This module will help students to understand how to plan for a SQL Server 2008 installation, upgrade, and migration.

- Lesson 1: Preparing for SQL Server 2008 Installation
- Lesson 2: Installing SQL Server 2008
- Lesson 3: Upgrading a SQL Server 2000 Instance
- Lesson 4: Configuring a SQL Server Installation
- Lesson 5: Using SQL Server Configuration Manager
- Lab : Upgrading SQL Server 2000 to 2008 (Exercise 1: Analyzing the SQL Server 2000 Instance; Exercise 2: Upgrading to SQL Server 2008; Exercise 3: Validating the Upgrade; Exercise 4: Reviewing SQL Server Books Online)

Module 3: Storage Enhancements in SQL Server 2008

This module will teach students about changes to data storage, including data types, indexes, and partitions in SQL Server 2008.

- Lesson 1: Data Type Enhancements
- Lesson 2: Table Partitioning
- Lesson 3: Indexing Enhancements
- Lesson 4: Tuning Indexes (Optional)
- Lab : Optimizing SQL Server 2008 (Exercise 1: Partitioning Tables; Exercise 2: Using the Database Engine Tuning Advisor (Optional))

Module 4: SQL Server 2008 Administration Enhancements

This module will help students to understand administration tools that are new or enhanced with SQL Server 2008.

- Lesson 1: Administration Tools Overview
- Lesson 2: Using SQL Server Management Studio
- Lesson 3: Using the sqlcmd Utility
- Lesson 4: Using Windows PowerShell
- Lab : Administrating SQL Server 2008 (Exercise 1: Using SQL Server Management Studio; Exercise 2: Using SQL Server Command-Line Management; Exercise 3: Using PowerShell)

Module 5: Security Enhancements with SQL Server 2008

This module will help students to understand enhancements and additions to SQL Server 2008 Security.

- Lesson 1: SQL Server 2008 Security Overview
- Lesson 2: Managing SQL Server 2008 Security
- Lesson 3: Managing Permissions
- Lesson 4: Managing Keys and Certificates
- Lesson 5: Data Encryption
- Lab : Securing a SQL Server 2008 Database (Exercise 1: Managing Principals; Exercise 2: Managing Securables; Exercise 3: Managing Permissions; Exercise 4: Configuring Column Encryption; Exercise 5: Transparent Data Encryption)

Module 6: SQL Server 2008 Disaster Recovery

This module will teach student how to prepare for and recover from potential database disasters.

- Lesson 1: Database Backup
- Lesson 2: Backup Compression
- Lesson 3: Database Restoration
- Lesson 4: Database Snapshots
- Lab : SQL Server 2008 Disaster Recovery (Exercise 1: Making a Copy-Only Backup; Exercise 2: Using Compression for Backup Files; Exercise 3: Creating the Database Snapshot; Exercise 4: Restoring From a Database Snapshot)

Module 7: High Availability in SQL Server 2008

This module will teach students how to maintain availability to their SQL Server data even through server downtime.

- Lesson 1: Log Shipping
- Lesson 2: Database Mirroring
- Lesson 3: Determining the Best High Availability Solution

- Lab : SQL Server 2008 High Availability (Exercise 1: Implementing Log Shipping; Exercise 2: Implementing Database Mirroring; Exercise 3: Implementing Peer-to-Peer Replication)

Module 8: Replication Enhancements in SQL Server 2008

This module helps students to take advantage of the replication enhancements in SQL Server 2008.

- Lesson 1: New Types of Replication
- Lesson 2: Additional Replication Enhancements
- Lab : Implementing Replication (Exercise 1: Implementing Peer-to-Peer Transactional Replication; Exercise 2: Implementing HTTP Replication)

Module 9: SQL Server 2008 Policy-Based Management

The students will be introduced to new SQL Server 2008 policy-based management features.

- Lesson 1: Understanding Central Management Servers
- Lesson 2: Understanding Policy-Based Management
- Lesson 3: Implementing Policy-Based Management
- Lab : Using Policy-Based Management (Exercise 1: Creating a Central Management Server and Server Group; Exercise 2: Creating and Applying a Policy)

Module 10: SQL Server 2008 Monitoring Enhancements

This module helps students to use SQL Server 2008 monitoring features.

- Lesson 1: Monitoring a Database
- Lesson 2: Using DDL Triggers
- Lesson 3: Auditing in SQL Server
- Lesson 4: Event Notifications
- Lesson 5: Using Static and Dynamic Metadata
- Lab : Monitoring SQL Server 2008 (Exercise 1: Monitoring SQL Server Activity; Exercise 2: Tracing SQL Server Activity; Exercise 3: Using DLL Triggers; Exercise 4: Using Event Notification)

Module 11: SQL Server 2008 Performance

This module helps students to take advantage of the performance enhancements in SQL Server 2008.

- Lesson 1: Managing Workloads with Resource Governor
- Lesson 2: Monitoring Performance with the Data Collector
- Lesson 3: Managing Performance with Plan Freezing
- Lab : Managing SQL Server Performance (Exercise 1: Using Resource Governor; Exercise 2: Using the Data Collector; Exercise 3: Using Plan Freezing)