

Course Outline

SQL Server Advanced Administration (2008/2016)

Duration: 4 Days

OBJECTIVES

This course is aimed at SQL Server database administrators who wish to build on their basic administration skills and learn how to manage multiple SQL Server deployments and implement some of the more advanced administration and management services. This course along with the SQL Server Essential Administration Course helps to prepare delegates for the 70-462 Microsoft MCTS exam: Administering Microsoft SQL Server 2012/2014 Databases. This exam credits towards MCSA and MCSE certifications. It should be noted, however, that all course attendances should be complemented by reference to the skills measured by the exam, a period of self-study and test exams before sitting the actual exam. This course is suitable for delegates working with all versions of SQL Server from SQL Server 2008 through to SQL Server 2016.

PRE-REQUISITES

Delegates attending this course should have SQL Server administration knowledge up to the level provided by the "SQL Server Essential Administration Course".

COURSE OUTLINE

DBA Maintenance Tasks

- DBA Maintenance Tasks
- Manage Services
- Maintain Security
- User Account Management
- Linked Server Management
- Impersonation
- Index Maintenance
- Index Types
- Spatial
- Clustered/Non-Clustered
- XML
- Filtered
- Include
- Updating & Creating Index & Column Statistics
- Automatic v Manual Update
- Enabling and Disabling Indexes
- Rebuilding and Re-organizing Indexes
- Database Engine Tuning Advisor
- Manage Collations
- Data File Maintenance
- Shrinking Databases and Data Files
- Automatic versus Manual
- Data Purging
- Database Maintenance Plans
- Maintain Database Integrity
- CHECKDB

- Suspect Pages
- Performance and Tuning
- Checking Log Files

Command Line Administration Tools

- Using Powershell
- Using sqlcmd

Advanced Database Design

- Partitioning
- Partitioned Tables
- Partitioned Indexes
- Sparse Columns
- Row/Page Compression
- Enabling Filestream Support
- Implementing Full Text Indexing
- Implementing Transparent Database Encryption(TDE)
- Creating Database Snapshots

Transferring Data

- Overview of Data Transfer
- bcp utility
- BULK INSERT
- OPENROWSET
- Import and Export Wizards
- Introduction to SQL Server Integration Services

Implementing Replication

- Overview of Replication
- Managing Publications and Subscriptions
- Configuring Replication in Some Common Scenarios

Advanced Monitoring of SQL Server

- Monitoring with DDL Triggers
- Logon Triggers
- Using Event Notifications

Performance Tuning Services

- Profiler
- Performance Monitor
- Dynamic Management Views
- Using Resource Governor
- Performance Studio
- Data Collector

Policy-Based Management

- Using Policy-Based Management

Implementing Service Broker

- A sample application

High Availability

- Database Mirroring
- Log Shipping
- Clustering