



Course 20764B

Administering a SQL Database Infrastructure

Course Length : 40 Hours
Professional Series : 5 Days
Academic Series : 6 Weeks

Module 1: SQL Server Security

- Authenticating Connections to SQL Server
- Authorizing Logins to Connect to databases
- Authorization Across Servers
- Partially Contained Databases

Module 2: Assigning Server and Database Roles

- Working with server roles
- Working with Fixed Database Roles
- Assigning User-Defined Database Roles

Module 3: Authorizing Users to Access Resources

- Authorizing User Access to Objects
- Authorizing Users to Execute Code
- Configuring Permissions at the Schema Level

Module 4: Protecting Data with Encryption and Auditing

- Options for auditing data access in SQL Server
- Implementing SQL Server Audit
- Managing SQL Server Audit
- Protecting Data with Encryption

Module 5: Recovery Models and Backup Strategies

- Understanding Backup Strategies
- SQL Server Transaction Logs
- Planning Backup Strategies

Module 6: Backing Up SQL Server Databases

- Backing Up Databases and Transaction Logs
- Managing Database Backups
- Advanced Database Options

Module 7: Restoring SQL Server 2016 Databases

- Understanding the Restore Process
- Restoring Databases
- Advanced Restore Scenarios
- Point-in-Time Recovery

Module 8: Automating SQL Server

- Automating SQL Server management
- Working with SQL Server Agent
- Managing SQL Server Agent Jobs
- Multi-server Management

Module 9: Configuring Security for SQL Server

- Understanding SQL Server Agent Security
- Configuring Credentials
- Configuring Proxy Accounts

Module 10: Monitoring SQL Server with Alerts and Notifications

- Monitoring SQL Server Errors
- Configuring Database Mail
- Operators, Alerts, and Notifications
- Alerts in Azure SQL Database

Module 11: Introduction to Managing SQL Server by using PowerShell

- Getting Started with Windows PowerShell
- Configure SQL Server using PowerShell
- Administer and Maintain SQL Server with PowerShell
- Managing Azure SQL Databases using PowerShell

Module 12: Tracing Access to SQL Server with Extended events

- Extended Events Core Concepts
- Working with Extended Events

Module 13: Monitoring SQL Server

- Monitoring activity
- Capturing and Managing Performance Data
- Analyzing Collected Performance Data
- SQL Server Utility

Module 14: Troubleshooting SQL Server

- A Trouble Shooting Methodology for SQL Server
- Resolving Service Related Issues
- Resolving Connectivity and Log-in issues

Module 15: Importing and Exporting Data

- Transferring Data to and from SQL Server
- Importing and Exporting Table Data
- Using bcp and BULK INSERT to Import Data
- Deploying and Upgrading Data-Tier Application

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