Microsoft SQL Server 2019 Database Administration

Module1: SQL Server Components and Architecture

Lesson 1: Overview of SQL Server Architecture
Lesson 2: Introduction to the SQL Server Platform
Lesson 3: Installing and Configuring SQL Server 2019
Lesson 4: Installation changes/ Feature Selection /New Tab

Lab: Identify the Edition and Version of a Running SQL Server
Instance, Installing SQL Server 2019

Module2: Working with Databases

Lesson 1: Introduction to Data Storage with SQL Server
Lesson 2: Managing Storage for System and user Databases
Lesson 3: Configuring the Buffer Pool Extension and Hybrid buffer pool

Lab: Managing Database Storage

Module 3: Performing Database Maintenance

Lesson 1: Ensuring Database Integrity
Lesson 2: Tempdb Configuration and Memory-optimized TempDB Metadata
Lesson 3: Maintaining Indexes

Lab: Performing Ongoing Database Maintenance

Module 4: SQL Server Authentication and Authorization

Lesson 1: Connections to SQL Server
Lesson 2: Privileges and permissions to Logins with Database
Lesson 3: Authorization Across Servers

Lab: Authenticating Users

Module 5: Working with Server and Database Roles

Lesson 1: Working with Server Roles
Lesson 2: Working with Fixed Database Roles
Lesson 3: User-Defined Database and Server Roles

Lab: Assigning Server and Database Roles

Module 6: Controlling User Access

Lesson 1: Creating and Granting User Access to Objects
Lesson 2: Authorizing Users to Execute Code
Lesson 3: Configuring Permissions at the Schema and Database level

Lab: Authorizing Users to Access Resources

Module 7: Database Encryption and Auditing

Lesson 1: Auditing Data Access in SQL Server
Lesson 2: Implementing SQL Server Audit
Lesson 3: Managing SQL Server Audit
Lesson 4: Always Encrypted with Secure Enclaves, Database classification function on 2019

Lab: Using Auditing and Encryption

Module 8: Planning and Implementing a Backup Strategy

Lesson 1: Understanding Backup Strategies
Lesson 2: SQL Server Transaction Logs
Lesson 3: Planning Backup Strategies

Lab: Understanding SQL Server Recovery Models

Module 9: Backing Up SQL Server Databases

Lesson 1: Backing Up Databases and Transaction Logs
Lesson 2: Managing Database Backups
Lesson 3: Advanced Database Options

Lab: Backing Up Databases

Module 10: Restoring SQL Server 2019 Databases

Lesson 1: Understanding the Restore Process
Lesson 2: Restoring SQL Databases
Lesson 3: Point-in-time Recovery with Advance Restore Scenario
Lesson 4: Accelerated Database Recovery

Lab: Restoring SQL Server Databases

Module 11: Automating SQL Server Management

Lesson 1: Automating SQL Server Management
Lesson 2: Working with SQL Server Agent
Lesson 3: Managing SQL Server Agent Jobs with Security Contexts

Lab: Automating SQL Server Management

Module 12: SQL Server with Extended Events

Lesson 1: Extended Events Core Concepts
Lesson 2: Working with Extended Events

Lab: Extended Events

Module 13: Performance Improvement and Monitoring SQL Server 2019

Lesson 1: Monitoring Activity
Lesson 2: Capturing and Managing Performance Data
Lesson 3: Query Execution and Query Plan Analysis
Lesson 4: Statistics Internal
Lesson 5: Query Store

Lab: Monitoring SQL Server

Module 14: Troubleshooting SQL Server

Lesson 1: Monitoring SQL Server Errors
Lesson 2: A Troubleshooting Methodology for SQL Server
Lesson 3: Resolving Blocking and Locking in SQL Server
Lesson 4: Resolving Connectivity and Login Issues

Lab: Troubleshooting Common Issues

Module 15: Different Method of Transferring Data

Lesson 1: Transferring Data to and from SQL Server
Lesson 2: Importing and Exporting Table Data
Lesson 3: bulk copy program and BULK INSERT to Import Data

Lab: Importing and Exporting Data