

MSQ4-6 - MOC 20764 - ADMINISTERING A SQL DATABASE INFRASTRUCTURE

Categoria: **SQL Server 2017 e 2016**

INFORMAZIONI SUL CORSO



Durata:
5 Giorni



Categoria:
SQL Server 2017 e
2016



Qualifica Istruttore:
Microsoft Certified
Trainer



Dedicato a:
Professionista IT



Produttore:
Microsoft

OBIETTIVI

- Autenticare e autorizzare gli utenti
- Assegnare ruoli server e database
- Autorizzare gli utenti ad accedere alle risorse
- Proteggere i dati con la crittografia e il controllo
- Descrivere i modelli di recupero e le strategie di backup
- Effettuare i backup di Database SQL Server
- Ripristinare i database di SQL Server
- Automatizzare la gestione di database
- Configurare la protezione per l'agente di SQL Server
- Gestire avvisi e notifiche
- Gestire SQL Server utilizzando PowerShell
- Tracciare l'accesso a SQL Server
- Monitorare una infrastruttura di SQL Server
- Risolvere i problemi di una infrastruttura SQL Server
- Importare ed esportare i dati

PREREQUISITI

- Conoscenza di base del sistema operativo Microsoft Windows e delle sue funzionalità principali
- Conoscenza di lavoro di Transact-SQL
- Conoscenza delle basi di dati relazionali
- Alcune esperienze con la progettazione dei database

CONTENUTI

Module 1: Authenticating and Authorizing Users

- Authenticating connections to SQL Server
- Authorizing logins to access databases
- Authorization across servers
- Partially contained databases

Lab : Authenticating Users

After completing this module, you will be able to:

- Describe server level security
- Describe database level security
- Describe multi-server authentication
- Describe partially contained databases

Module 2: Assigning Server and Database Roles

- Working with server roles
- Working with Fixed database roles
- Creating user-defined database roles

Lab : Assigning server and database roles

After completing this module, you will be able to:

- Describe server roles
- Describe fixed database roles
- Describe 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

Lab : Authorizing users to access resources

After completing this module, you will be able to:

- Describe how to authorize user access to objects
- Describe how to authorize users to execute code
- Describe how to configure 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

Lab : Using Auditing and Encryption

After completing this module, you will be able to:

- Describe options for auditing data access.
- Implement SQL Server Audit.
- Manage SQL Server Audit.
- Describe how to use custom audit events.
- Implement encryption

Module 5: SQL Server Recovery Models

- Backup strategies
- Understanding SQL Server transaction log
- Planning a SQL Server backup strategy

Lab : Understanding SQL Server recovery models

After completing this module, you will be able to:

- Describe the various backup strategies.
- Describe how database transaction logs function.
- Plan a SQL Server backup strategy.

Module 6: Backup of SQL Server Databases

Backing up databases and transaction logs

Managing database backups

Working with backup options

Lab : Backing up SQL Server databases

After completing this module, you will be able to:

Perform backups of SQL Server databases and transaction logs.

Manage database backups.

Describe the advanced backup options.

Describe how to backup to the Azure Windows Blob Store.

Module 7: Restoring SQL Server Databases

Understanding the restore process

Restoring databases

Working with point-in-time recovery

Restoring system databases and individual files

Lab : Restoring SQL Server User Databases

After completing this module, you will be able to:

Explain the database restore process.

Describe the concept of point in time recovery.

Describe the advanced concepts of restoring.

Module 8: Automating SQL Server Management

Automating SQL Server management

Working with SQL Server agent

Managing SQL Server agent jobs

Multi-server management

Lab : Automating SQL Server Management

After completing this module, you will be able to:

Describe methods for automating SQL Server Management.

Configure jobs, job step types, and schedules.

Manage SQL Server Agent jobs.

Configure

master and target servers.

Module 9: Configuring Security for SQL Server Agent

Understanding SQL Server Agent Security

Configuring credentials

Configuring proxy accounts

Lab : Configuring Security for SQL Server Agent

After completing this module, you will be able to:

Describe the security context for SQL Server Agent jobs.

Configure credentials.

Configure proxy accounts.

Module 10: Monitoring SQL Server with Alerts and Notifications

Configuration of database mail

Monitoring SQL Server errors

Configuring operators, alerts, and notifications

Alerts in Azure SQL database

Lab : Monitoring SQL Server with Alerts and Notifications

After completing this module, you will be able to:

Configure database mail.

Monitor SQL Server errors.

Configure operators, alerts and notifications.

Module 11: Introduction to Managing SQL Server by using PowerShell

Configure SQL Server using PowerShell

Administer SQL Server using PowerShell

Maintain the SQL Server environment using PowerShell

Managing Azure SQL Server databases using PowerShell

Lab : Administering SQL Server using PowerShell

After completing this module, you will be able to:

Configure SQL Server using PowerShell

Manage day-to-day SQL Server Administration with PowerShell

Maintain the SQL Server environment using PowerShell.

Module 12: Tracing Access to SQL Server

Capturing activity using SQL Server profiler

Improving performance with the database engine tuning advisor

Working with tracing options

Distributed replay

Monitoring locks

Lab : Tracing Access to SQL Server

After completing this module, you will be able to:

Configure SQL Profiler traces and review captured traces.

Use the Database Engine Tuning Advisor.

Understand SQL Server advanced tracing concepts.

Use Distributed Replay.

Monitor Locking.

Module 13: Monitoring SQL Server

Monitoring activity

Capturing and managing performance data

Analyzing collected performance data

SQL Server utility

Lab : Monitoring SQL Server

After completing this module, you will be able to:

Monitor activity within SQL Server

Configure data collection.

View reports from data collection.

Configure a SQL Server Utility (UCP)

Module 14: Troubleshooting SQL Server

SQL Server troubleshooting methodology

Resolving service related issues

Resolving login and connectivity issues

Troubleshooting common issues

Lab : Troubleshooting Common Issues

After completing this module, you will be able to:

Explain the SQL Server troubleshooting methodology.

Resolve service-related issues.

Resolve login and connectivity issues

Module 15: Importing and Exporting Data

Transferring data to/from SQL Server

Importing and exporting table data

Using BCP and BULK INSERT to import data

Deploying and upgrading data-tier applications

Lab : Importing and Exporting Data

After completing this module, you will be able to:

Transfer data.

Import and export table data.

Use BCP and BULK INSERT to import data.

Use DACs to import and export database applications

INFO

Materiale didattico: Materiale didattico in formato digitale

Costo materiale didattico: incluso nel prezzo del corso a Calendario

Natura del corso: Operativo (previsti lab su PC)