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

Categoria: **SQL Server 2017 e 2016**

INFORMAZIONI SUL CORSO

Durata:	Categoria:	Qualifica Istruttore:	Dedicato a:	Produttore:
5 Giorni	SQL Server 2017 e 2016	Microsoft Certified Trainer	Professionista IT	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 login
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)