

MSQ4-4 - MOC 20767 - IMPLEMENTING A SQL DATA WAREHOUSE

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

- Descrivere gli elementi chiave di una soluzione di data warehousing
- Descrivere le principali considerazioni di hardware per la costruzione di un data warehouse
- Implementare un disegno logico per un data warehouse
- Implementare una progettazione fisica di un data warehouse
- Creare indici columnstore
- Implementare un data warehouse Azure SQL
- Descrivere le caratteristiche principali di SSIS
- Implementare un flusso di dati utilizzando SSIS
- Implementare flusso di controllo, utilizzando i compiti e vincoli di precedenza
- Creare pacchetti dinamici che includono variabili e parametri
- Pacchetti di debug SSIS
- Descrivere le considerazioni per implementare una soluzione ETL
- Implementare Data Services di qualità
- Implementare un modello di Master Data Services
- Descrivere come è possibile utilizzare componenti personalizzati per estendere SSIS
- Distribuire progetti SSIS
- Descrivere la BI e gli scenari comuni di BI

PREREQUISITI

Almeno 2 anni di esperienza di lavoro con i database relazionali, ad esempio: Progettazione di un database normalizzato. Creazione di tabelle e relazioni. Interrogazione con Transact-SQL.
Esposizione ai costrutti di programmazione di base (ad esempio, looping e branching).
E' auspicabile la consapevolezza delle priorità di business chiave come entrate, redditività e contabilità finanziaria.

CONTENUTI

Module 1: Introduction to Data Warehousing

- Overview of Data Warehousing
- Considerations for a Data Warehouse Solution

Lab : Exploring a Data Warehouse Solution

After completing this module, you will be able to:

Describe the key elements of a data warehousing solution

Describe the key considerations for a data warehousing solution

Module 2: Planning Data Warehouse Infrastructure

Considerations for Building a Data Warehouse

Data Warehouse Reference Architectures and Appliances

Lab : Planning Data Warehouse Infrastructure

After completing this module, you will be able to:

Describe the main hardware considerations for building a data warehouse

Explain how to use reference architectures and data warehouse appliances to create a data warehouse

Module 3: Designing and Implementing a Data Warehouse

Logical Design for a Data Warehouse

Physical Design for a Data Warehouse

Lab : Implementing a Data Warehouse Schema

After completing this module, you will be able to:

Implement a logical design for a data warehouse

Implement a physical design for a data warehouse

Module 4: Columnstore Indexes

Introduction to Columnstore Indexes

Creating Columnstore Indexes

Working with Columnstore Indexes

Lab : Using Columnstore Indexes

After completing this module, you will be able to:

Create Columnstore indexes

Work with Columnstore Indexes

Module 5: Implementing an Azure SQL Data Warehouse

Advantages of Azure SQL Data Warehouse

Implementing an Azure SQL Data Warehouse

Developing an Azure SQL Data Warehouse

Migrating to an Azure SQ Data Warehouse

Lab : Implementing an Azure SQL Data Warehouse

After completing this module, you will be able to:

Describe the advantages of Azure SQL Data Warehouse

Implement an Azure SQL Data Warehouse

Describe the considerations for developing an Azure SQL Data Warehouse

Plan for migrating to Azure SQL Data Warehouse

Module 6: Creating an ETL Solution

Introduction to ETL with SSIS

Exploring Source Data

Implementing Data Flow

Lab : Implementing Data Flow in an SSIS Package

After completing this module, you will be able to:

Describe ETL with SSIS
Explore Source Data
Implement a Data Flow

Module 7: Implementing Control Flow in an SSIS Package

Introduction to Control Flow
Creating Dynamic Packages
Using Containers

Lab : Implementing Control Flow in an SSIS Package

Lab : Using Transactions and Checkpoints

After completing this module, you will be able to:

Describe control flow
Create dynamic packages
Use containers

Module 8: Debugging and Troubleshooting SSIS Packages

Debugging an SSIS Package
Logging SSIS Package Events
Handling Errors in an SSIS Package

Lab : Debugging and Troubleshooting an SSIS Package

After completing this module, you will be able to:

Debug an SSIS package
Log SSIS package events
Handle errors in an SSIS package

Module 9: Implementing an Incremental ETL Process

Introduction to Incremental ETL
Extracting Modified Data
Temporal Tables

Lab : Extracting Modified Data

Lab : Loading Incremental Changes

After completing this module, you will be able to:

Describe incremental ETL
Extract modified data
Describe temporal tables

Module 10: Enforcing Data Quality

Introduction to Data Quality
Using Data Quality Services to Cleanse Data
Using Data Quality Services to Match Data

Lab : Cleansing Data

Lab : De-duplicating Data

After completing this module, you will be able to:

Describe data quality services
Cleanse data using data quality services
Match data using data quality services

De-duplicate data using data quality services

Module 11: Using Master Data Services

Master Data Services Concepts
Implementing a Master Data Services Model
Managing Master Data
Creating a Master Data Hub

Lab : Implementing Master Data Services

After completing this module, you will be able to:
Describe the key concepts of master data services
Implement a master data service model
Manage master data
Create a master data hub

Module 12: Extending SQL Server Integration Services (SSIS)

Using Custom Components in SSIS
Using Scripting in SSIS

Lab : Using Scripts and Custom Components

After completing this module, you will be able to:
Use custom components in SSIS
Use scripting in SSIS

Module 13: Deploying and Configuring SSIS Packages

Overview of SSIS Deployment
Deploying SSIS Projects
Planning SSIS Package Execution

Lab : Deploying and Configuring SSIS Packages

After completing this module, you will be able to:
Describe an SSIS deployment
Deploy an SSIS package
Plan SSIS package execution

Module 14: Consuming Data in a Data Warehouse

Introduction to Business Intelligence
Introduction to Reporting
An Introduction to Data Analysis
Analyzing Data with Azure SQL Data Warehouse

Lab : Using Business Intelligence Tools

After completing this module, you will be able to:
Describe at a high level business intelligence
Show an understanding of reporting
Show an understanding of data analysis
Analyze data with Azure SQL data warehouse

INFO

Materiale didattico: Materiale didattico e relativo prezzo da concordare

Costo materiale didattico: NON incluso nel prezzo del corso

Natura del corso: Operativo (previsti lab su PC)