IMPLEMENTING A SQL DATA WAREHOUSE (M20767)

Course Code: 4398

Learn to implement a data warehouse platform with Microsoft SQL Server 2016.

In this course, provides students with the knowledge and skills to provision a Microsoft SQL Server database. The course covers SQL Server provision both on-premise and in Azure, and covers installing from new and migrating from an existing install. This course incorporates material from the Official Microsoft Learning Product 20767: and it can assist you in your preparation for Exam 70-767: Implementing a SQL Data Warehouse.

This course is also available in the On-Demand delivery format with digital Microsoft Official Courseware (dMOC). Click [here](#) to purchase.

Learn more about this topic. View the recorded webinar [Overview of Microsoft SQL Server and High Availability Options](#)

What You’ll Learn

- Describe the key elements of a data warehousing solution
- Describe the main hardware consideration for building a data warehouse
- Implement a logical design for a data warehouse
- Implement a physical design for a data warehouse
- Create columnstore indexes
- Implementing an Azure SQL Data Warehouse
- Describe the key features of SSIS
- Implement control flow by using tasks and precedence constraints
- Create dynamic packages that include variables and parameters
- Debug SSIS packages
- Describe the considerations for implement an ETL solution
- Implement Data Quality Services
- Implement a Maser Data Services model
- Describe how you can use custom components to extend SSIS
- Deploy SSIS projects
- Describe BI and common BI scenarios
Who Needs to Attend

• Database professionals who need to fulfill a BI developer role focused on hands-on work by creating BI solutions, including data warehouse implementation, ETL and data cleansing
• Database professionals responsible for implementing a data warehouse, developing SSIS packages for data ETL, enforcing data integrity using Microsoft Data Services and cleansing data using Data Quality Services

Prerequisites

• Basic knowledge of the Microsoft Windows operating system and its core functionality.
• Working knowledge of relational databases.
• Some experience with database design
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Classroom Live Outline

1. Introduction to Data Warehousing
   - Overview of Data Warehousing
   - Considerations for a Data Warehouse Solution

2. Planning Data Warehouse Infrastructure
   - Considerations for Building a Data Warehouse
   - Planning data warehouse hardware

3. Designing and Implementing a Data Warehouse
   - Data warehouse design overview
   - Designing dimension tables
   - Designing fact tables
   - Physical Design for a Data Warehouse

4. Columnstore Indexes
   - Introduction to Columnstore Indexes
   - Creating Columnstore Indexes
   - Working with Columnstore Indexes

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 SQL Data Warehouse
   - Copying data with Azure data factory

6. Creating an ETL Solution
   - Introduction ETL with SSIS
   - Exploring Source Data
   - Implementing Data Flow

CLASSROOM LIVE $2,995 USD 5 days
7. Implementing Control Flow in an SSIS Package
   • Introduction to Control Flow
   • Creating Dynamic Packages
   • Using Containers
   • Managing consistency
8. Debugging and Troubleshooting SSIS Packages
   • Debugging an SSIS Package
   • Logging SSIS Package Events
   • Handling Errors in Data Flow
9. Implementing a Data Extraction Solution
   • Introduction to Incremental ETL
   • Extracting Modified Data
   • Loading Modified Data
   • Temporal Tables
10. Enforcing Data Quality
    • Introduction to Data Quality
    • Using Data Quality Services to Cleanse Data
    • Using Data Quality Services to Match Data
11. Using Master Data Services
    • Introduction to Master Data Services Concepts
    • Implementing a Master Data Services Model
    • Hierarchies and Collections
    • Creating a Master Data Hub
12. Extending SQL Server Integration Services (SSIS)
    • Using Custom Components in SSIS
    • Using Scripting in SSIS
13. Deploying and Configuring SSIS Packages
    • Overview of SSIS Deployment
    • Deploying SSIS Projects
    • Planning SSIS Package Execution
14. Consuming Data in a Data Warehouse
    • Introduction to Business Intelligence
    • An Introduction to Data Analysis
    • Introduction to Reporting
    • Analyzing Data with Azure SQL Data Warehouse

Classroom Live Labs
Lab 1: Exploring a Data Warehouse Solution
Lab 2: Planning Data Warehouse Infrastructure
Lab 3: Implementing a Data Warehouse Schema
Lab 4: Using Columnstore Indexes
Lab 5: Implementing an Azure SQL Data Warehouse
Lab 6: Implementing Data Flow in an SSIS Package
Lab 7: Implementing Control Flow in an SSIS Package
Lab 8: Using Transactions and Checkpoints
Lab 9: Debugging and Troubleshooting an SSIS Package
Lab 10: Extracting Modified Data
Lab 11: Loading a data warehouse
Lab 12: Cleansing Data
Lab 13: De-duplicating Data
Lab 14: Implementing Master Data Services
Lab 15: Using Scripts
Lab 16: Deploying and Configuring SSIS Packages
Lab 17: Using a Data Warehouse
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VIRTUAL CLASSROOM LIVE  $2,995 USD  5 days

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Aug 10 - 14, 2020 | 8:30 AM - 4:30 PM EST
Sep 14 - 18, 2020 | 8:30 AM - 4:30 PM EST
Nov 2 - 6, 2020 | 11:30 AM - 7:30 PM EST
Nov 9 - 13, 2020 | 8:30 AM - 4:30 PM EST
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PRIVATE GROUP TRAINING 5 days

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