

Course duration

- 5 days

Course Benefits

- Learn to describe the key elements of a data warehousing solution.
- Learn to describe the main hardware considerations for building a data warehouse.
- Learn to implement a logical design for a data warehouse.
- Learn to implement a physical design for a data warehouse.
- Learn to create columnstore indexes.
- Learn to implementing an Azure SQL Data Warehouse.
- Learn to describe the key features of SSIS.
- Learn to implement a data flow by using SSIS.
- Learn to implement control flow by using tasks and precedence constraints.
- Learn to create dynamic packages that include variables and parameters.
- Learn to debug SSIS packages.
- Learn to describe the considerations for implement an ETL solution.
- Learn to implement Data Quality Services.
- Learn to implement a Master Data Services model.
- Learn to describe how you can use custom components to extend SSIS.
- Learn to deploy SSIS projects.
- Learn to describe BI and common BI scenarios .

Available Delivery Methods

Public Class

Public expert-led online training from the convenience of your home, office or anywhere with an internet connection. Guaranteed to run .

Private Class

Private classes are delivered for groups at your offices or a location of your choice.

Microsoft Certified Partner

Webucator is a Microsoft Certified Partner for Learning Solutions (CPLS). This class uses official Microsoft courseware and will be delivered by a Microsoft Certified Trainer (MCT).

Course Outline

1. Introduction to Data Warehousing
 1. Overview of Data Warehousing
 2. Considerations for a Data Warehouse Solution
 3. Lab: Exploring a Data Warehouse Solution
2. Planning Data Warehouse Infrastructure
 1. Considerations for Building a Data Warehouse
 2. Data Warehouse Reference Architectures and Appliances
 3. Lab: Planning Data Warehouse Infrastructure
3. Designing and Implementing a Data Warehouse
 1. Logical Design for a Data Warehouse
 2. Physical Design for a Data Warehouse
 3. Lab: Implementing a Data Warehouse Schema
4. Columnstore Indexes
 1. Introduction to Columnstore Indexes
 2. Creating Columnstore Indexes
 3. Working with Columnstore Indexes
 4. Lab: Using Columnstore Indexes
5. Implementing an Azure SQL Data Warehouse
 1. Advantages of Azure SQL Data Warehouse
 2. Implementing an Azure SQL Data Warehouse
 3. Developing an Azure SQL Data Warehouse
 4. Migrating to an Azure SQ Data Warehouse
 5. Lab: Implementing an Azure SQL Data Warehouse
6. Creating an ETL Solution
 1. Introduction to ETL with SSIS
 2. Exploring Source Data
 3. Implementing Data Flow
 4. Lab: Implementing Data Flow in an SSIS Package
7. Implementing Control Flow in an SSIS Package
 1. Introduction to Control Flow
 2. Creating Dynamic Packages
 3. Using Containers
 4. Lab: Implementing Control Flow in an SSIS Package and Lab: Using Transactions and Checkpoints
8. Debugging and Troubleshooting SSIS Packages
 1. Debugging an SSIS Package
 2. Logging SSIS Package Events
 3. Handling Errors in an SSIS Package
 4. Lab: Debugging and Troubleshooting an SSIS Package
9. Implementing an Incremental ETL Process
 1. Introduction to Incremental ETL
 2. Extracting Modified Data
 3. Temporal Tables
 4. Lab: Extracting Modified DataLab: Loading Incremental Changes
10. Enforcing Data Quality

1. Introduction to Data Quality
2. Using Data Quality Services to Cleanse Data
3. Using Data Quality Services to Match Data
4. Lab: Cleansing DataLab: De-duplicating Data
11. Using Master Data Services
 1. Master Data Services Concepts
 2. Implementing a Master Data Services Model
 3. Managing Master Data
 4. Creating a Master Data Hub
 5. Lab: Implementing Master Data Services
12. Extending SQL Server Integration Services (SSIS)
 1. Using Custom Components in SSIS
 2. Using Scripting in SSIS
 3. Lab: Using Scripts and Custom Components
13. Deploying and Configuring SSIS Packages
 1. Overview of SSIS Deployment
 2. Deploying SSIS Projects
 3. Planning SSIS Package Execution
 4. Lab: Deploying and Configuring SSIS Packages
14. Consuming Data in a Data Warehouse
 1. Introduction to Business Intelligence
 2. Introduction to Reporting
 3. An Introduction to Data Analysis
 4. Analyzing Data with Azure SQL Data Warehouse
 5. Lab: Using Business Intelligence Tools

Class Materials

Each student will receive a comprehensive set of materials, including course notes and all the class examples.

Class Prerequisites

Experience in the following *is required* for this SQL Server class:

- At least 2 years' experience of working with relational databases, including:
- Designing a normalized database.
- Creating tables and relationships.
- Querying with Transact-SQL.
- Some exposure to basic programming constructs (such as looping and branching).
- An awareness of key business priorities such as revenue, profitability, and financial

accounting is desirable.

Follow-on Courses

- [MOC 10989 - Analyzing Data with Power BI](#)