

Course 20463D: Implementing a Data Warehouse with Microsoft® SQL Server® 2014
Exam Code: 70-462

Course Outline

Module 1: Introduction to Data Warehousing

This module provides an introduction to the key components of a data warehousing solution and the high-level considerations you must take into account when you embark on a data warehousing project.

Lessons

Overview of Data Warehousing

Considerations for a Data Warehouse Solution

Lab : Exploring a Data Warehousing Solution

Module 2: Data Warehouse Hardware Considerations

This module discusses considerations for selecting hardware and distributing SQL Server facilities across servers.

Lessons

Considerations for building a Data Warehouse

Data Warehouse Reference Architectures and Appliances

Lab : Planning Data Warehouse Infrastructure

Module 3: Designing and Implementing a Data Warehouse

This module describes the key considerations for the logical design of a data warehouse, and then discusses best practices for its physical implementation.

Lessons

Logical Design for a Data Warehouse

Physical design for a data warehouse

Lab : Implementing a Data Warehouse Schema

Module 4: Creating an ETL Solution with SSIS

This module discusses considerations for implementing an ETL process, and then focuses on Microsoft SQL Server Integration Services (SSIS) as a platform for building ETL solutions.

Lessons

Introduction to ETL with SSIS

Exploring Data Sources

Implementing Data Flow

Lab : Implementing Data Flow in an SSIS Package

Module 5: Implementing Control Flow in an SSIS Package

This module describes how to implement ETL solutions that combine multiple tasks and workflow logic.

Lessons

Introduction to Control Flow

Creating Dynamic Packages

Using Containers

Managing Consistency

Lab : Implementing Control Flow in an SSIS Package

Lab : Using Transactions and Checkpoints

Module 6: Debugging and Troubleshooting SSIS Packages

This module describes how you can debug packages to find the cause of errors that occur during execution. It then discusses the logging functionality built into SSIS that you can use to log events for troubleshooting purposes. Finally, the module describes common approaches for handling errors in control flow and data flow.

Lessons

Debugging an SSIS Package

Logging SSIS Package Events

Handling Errors in an SSIS Package

Lab : Debugging and Troubleshooting an SSIS Package

Module 7: Implementing an Incremental ETL Process

This module describes the techniques you can use to implement an incremental data warehouse refresh process.

Lessons

Introduction to Incremental ETL

Extracting Modified Data

Loading Modified data

Module 8: Enforcing Data Quality

This module introduces Microsoft SQL Server Data Quality Services (DQS), and describes how you can use it to cleanse and deduplicate data.

Lessons

Introduction to Data Quality

Using Data Quality Services to Cleanse Data

Using Data Quality Services to Match data

Lab : Cleansing DataLab : De-duplicating data

Module 9: Using Master Data Services

Master Data Services provides a way for organizations to standardize data and improve the quality, consistency, and reliability of the data that guides key business decisions. This module introduces Master Data Services and explains the benefits of using it.

Lessons

Master Data Services Concepts

Implementing a Master Data Services Model

Managing Master Data

Creating a Master Data Hub

Lab : Implementing Master Data Services

Module 10: Extending SQL Server Integration Services

This module describes the techniques you can use to extend SSIS. The module is not designed to be a comprehensive guide to developing custom SSIS solutions, but to provide an awareness of the fundamental steps required to use custom components and scripts in an ETL process that is based on SSIS.

Lessons

Using Scripts in SSIS

Using Custom Components in SSIS

Lab : Using Custom Components and Scripts

Module 11: Deploying and Configuring SSIS Packages

In this module, students will learn how to deploy packages and their dependencies to a server, and how to manage and monitor the execution of deployed packages.

Lessons

Overview of SSIS Deployment

Deploying SSIS Projects

Planning SSIS Package Execution

Lab : Deploying and Configuring SSIS Packages

Module 12: Consuming Data in a Data Warehouse

This module introduces business intelligence (BI) solutions and describes how you can use a data warehouse as the basis for enterprise and self-service BI.

Lessons

Introduction to Business Intelligence

Introduction to Reporting

An Introduction to Data Analysis

Lab : Using Business Intelligence Tools