MOC 6235 Implementing and Maintaining Microsoft SQL Server 2008 Integration Services

Course Summary

Description

This course teaches students how to implement an Integration Services solution in an organization. The course discusses how to develop, deploy, and manage Integration Services packages.

Objectives

At the end of this course, students will be able to:

- Describe SQL Server Integration Services and its tools.
- Create an Integration Services package.
- Implement control flow in an Integration Services package.
- Implement data flow in an Integration Services package.
- Implement logging in an Integration Services package.
- Debug and implement error handling in an Integration Services package.
- Implement checkpoints and transactions in an Integration Services package.
- Deploy an Integration Services package.
- Manage and secure an Integration Services package.

Topics

- Introduction to SQL Server 2008 Integration Services
- Developing Integration Services Solutions
- Implementing Control Flow
- Implementing Data Flow
- Implementing Logging
- Debugging and Error Handling
- Implementing Checkpoints and Transactions
- Configuring and Deploying Packages
- Managing and Securing Packages

Audience

This course is intended for information technology (IT) professionals and developers who need to implement data transfer or extract, transform, and load (ETL) solutions by using Microsoft SQL Server 2008 Integration Services.

Prerequisites

Before attending this course, students must have:

- Exposure to enterprise data import and export scenarios.
- Experience navigating the Microsoft Windows Server environment.
- Experience with Microsoft SQL Server, including:
- SQL Server Agent.
- SQL Server query language (SELECT, UPDATE, INSERT, and DELETE).
- SQL Server System tables.
- SQL Server accounts (users and permissions).

Duration

Three days

Due to the nature of this material, this document refers to numerous hardware and software products by their trade names. References to other companies and their products are for informational purposes only, and all trademarks are the properties of their respective companies. It is not the intent of ProTech Professional Technical Services, Inc. to use any of these names generically

MOC 6235 Implementing and Maintaining Microsoft SQL Server 2008 Integration Services

Course Outline

I. Introduction to SQL Server 2008 Integration Services

The students will be introduced to the role that Integration Services plays in extracting, transforming, and loading data. The students will also be introduced to the tools that are used to build and manage Integration Services solutions.

A. Overview of SQL Server Integration Services
B. Using Integration Services Tools

Lab: Introduction to SQL Server Integration Services

- (Level 200) Using the Import and Export Wizard
- (Level 200) Running an Integration Services Package

After completing this module, students will be able to:

- Describe Integration Services solutions
- Use Integration Services tools

II. Developing Integration Services Solutions

The students will be introduced to the development tasks that are involved in creating an Integration Services package.

A. Creating an Integration Services Solution
B. Using Variables
C. Building and Running a Solution

Lab: Developing Integration Services Solutions

- (Level 200) Creating an Integration Services Project
- (Level 200) Implementing a Package
- (Level 200) Building and Running an Integration Services package

After completing this module, students will be able to:

- Create a SQL Server Integration Services solution.
- Use variables.
- Build and run a solution.

III. Implementing Control Flow

The students will be introduced to the tasks and precedence constraints that can be used to implement control flow in an Integration Services package.

A. Control Flow Tasks
B. Control Flow Precedent Constraints
C. Control Flow Containers

Lab: Implementing Control Flow

- (Level 200) Creating a Simple Control Flow
- (Level 200) Configuring Precedence Constraints
- (Level 200) Using Containers

After completing this module, students will be able to:

- Configure control flow tasks.
- Configure control flow precedence constraints.
- Configure control flow containers.

IV. Implementing Data Flow

The students will be introduced to the data flow sources, transformations, and destinations that can be used to implement a data flow task in an Integration Services control flow. It also explains how to use data flow paths to direct valid and invalid rows through the data flow.

A. Data Flow Sources and Destinations
B. Basic Data Flow Transformations
C. Advanced Data Flow Transformations
D. Data Flow Paths

Lab: Implementing Data Flow

- (Level 200) Transferring Data
- (Level 200) Implementing Transformations
- (Level 200) Using Data Viewers
- (Level 200) Configuring Error Output

After completing this module, students will be able to:

- Implement data flow sources and destinations.
- Implement basic data flow transformations.
- Implement advanced data flow transformations.
- Implement data flow paths.

V. Implementing Logging

The students will be introduced to how to use logging in an Integration Services package, and explained how to configure and use logging providers to generate information about a package's execution.

A. Overview of Integration Services Logging
B. Enabling and Configuring Loggin

Lab: Implementing Logging

- (Level 200) Configuring Logging
- (Level 200) Implementing Custom Logging

After completing this module, students will be able to:

- Describe Integration Services logging.
- Implement Integration Services logging.

Due to the nature of this material, this document refers to numerous hardware and software products by their trade names. References to other companies and their products are for informational purposes only, and all trademarks are the properties of their respective companies. It is not the intent of ProTech Professional Technical Services, Inc. to use any of these names generically

MOC 6235 Implementing and Maintaining Microsoft SQL Server 2008 Integration Services

Course Outline (cont'd)

VI. Debugging and Error Handling

The students will be introduced to how to debug Integration Services packages by using the debugging tools in Business Intelligence Development Studio. It then explains how to implement error-handling logic in an Integration Services package.

A. Debugging a Package
B. Implementing Error Handling

Lab: Debugging and Error Handling

- (Level 300) Debugging a Package
- (Level 300) Implementing Error Handling
- (Level 300) Controlling Failure Behavior

After completing this module, students will be able to:

A. Debug an SSIS package.
B. Implement error handling.

VII. Implementing Checkpoints and Transactions

The students will be introduced to what checkpoints are and how to implement them. It then discusses transactions, and describes how to implement transactional data access logic in an Integration Services package.

A. Implementing Checkpoints
B. Implementing Transactions

Lab: Implementing Checkpoints and Transactions

- (Level 200) Implementing Checkpoints in a Package
- (Level 300) Implementing Transactions in a Package
- (Level 300) Implementing a Native Transaction

After completing this module, students will be able to:

- Implement checkpoints.
- Implement transactions.

VIII. Configuring and Deploying Packages

The students will be introduced to how to create Package Configurations and how to deploy Integration Services packages to production servers.

A. Package Configurations
B. Deploying Packages

Lab: Configuring and Deploying Packages

- (Level 200) Creating a Package Configuration
- (Level 200) Preparing a Package for Deployment
- (Level 200) Deploying a Package

After completing this module, students will be able to:

- Implement package configurations.
- Deploy packages.

IX. Managing and Securing Packages

The students will be introduced to the management tasks that relate to Integration Services packages and explained how to perform those tasks by using the Integration Services management tools. It also describes how to secure Integration Services packages.

A. Managing Packages
B. Securing Packages

Lab: Managing and Securing Packages

- (Level 200) Importing a Package
- (Level 200) Configuring and Monitoring a Package
- (Level 200) Scheduling a Package
- (Level 200) Securing a Package

After completing this module, students will be able to:

- Manage packages.
- Secure packages.

Due to the nature of this material, this document refers to numerous hardware and software products by their trade names. References to other companies and their products are for informational purposes only, and all trademarks are the properties of their respective companies. It is not the intent of ProTech Professional Technical Services, Inc. to use any of these names generically