

KOENIG SOLUTIONS • COURSE OUTLINE

55321AC - SQL Server Integration Services

Learn to build, deploy and administer SQL Server Integration Services packages, from control flow and data flow to catalog security.

12

MODULES

70

TOPICS

17

HANDS-ON ACTIVITIES

COURSE OVERVIEW

This course covers building SSIS packages using SQL Server Data Tools, starting with the Import/Export Wizard and solutions and projects. It then addresses control flow tasks, containers, and data flow sources, destinations and transformations, along with techniques for making packages dynamic. Later modules cover troubleshooting and package reliability, deploying projects to the SSIS Catalog, and installing, administering and securing SSIS environments.

WHO THIS COURSE IS FOR

SSIS Developers

Database Administrators

ETL Developers

Business Intelligence Developers

SQL Server Administrators

LEARNING OBJECTIVES

- Use the Import/Export Wizard to move data between sources
- Describe solutions, projects and the Visual Studio interface
- Configure control flow tasks and precedence constraints
- Apply common tasks such as File System, FTP and Send Mail
- Configure data flow sources, destinations and transformations
- Implement dynamic packages using parameters, variables and expressions
- Apply containers such as Sequence, For Loop and Foreach Loop
- Deploy and secure projects in the SSIS Catalog

12 Modules, 70 Topics

01

Activity

SSIS Overview

TOPICS

Import/Export Wizard · Exporting Data with the Wizard · Common Import Concerns · Quality Checking Imported/Exported Data

02

Activity

Working with Solutions and Projects

TOPICS

Working with SQL Server Data Tools · Understanding Solutions and Projects · Working with the Visual Studio Interface

03

Activity

Basic Control Flow

TOPICS

Working with Tasks · Understanding Precedence Constraints · Annotating Packages · Grouping Tasks · Package and Task Properties · Connection Managers · Favourite Tasks

04

3 Activities

Common Tasks

TOPICS

- Analysis Services Processing
- Data Profiling Task
- Execute Package Task
- Execute Process Task
- Expression Task
- File System Task
- FTP Task
- Hadoop Task
- Script Task Introduction
- Send Mail Task
- Web Service Task
- XML Task

05

Activity

Data Flow Sources and Destinations

TOPICS

The Data Flow Task · The Data Flow SSIS Toolbox · Working with Data Sources · SSIS Data Sources · Working with Data Destinations · SSIS Data Destinations

06

2 Activities

Data Flow Transformations

TOPICS

Transformations · Configuring Transformations

07

Activity

Making Packages Dynamic

TOPICS

- Features for Making Packages Dynamic
- Package Parameters
- Project Parameters
- Variables
- SQL Parameters
- Expressions in Tasks
- Expressions in Connection Managers
- After Deployment
- How It All Fits Together

08

Activity

Containers

TOPICS

Sequence Containers · For Loop Containers · Foreach Loop Containers

09

2 Activities

Troubleshooting and Package Reliability

TOPICS

Understanding MaximumErrorCount · Breakpoints · Redirecting Error Rows · Logging · Event Handlers · Using Checkpoints · Transactions

10

2 Activities

Deploying to the SSIS Catalog

TOPICS

The SSIS Catalog · Deploying Projects · Working with Environments · Executing Packages in SSMS · Executing Packages from the Command Line · Deployment Model Differences

11

Activity

Installing and Administering SSIS

TOPICS

Installing SSIS · Upgrading SSIS · Managing the SSIS Catalog · Viewing Built-in SSIS Reports · Managing SSIS Logging and Operation Histories · Automating Package Execution

12

Activity

Securing the SSIS Catalog

TOPICS

Principals · Securables · Grantable Permissions · Granting Permissions · Configuring Proxy Accounts

Practise What You Learn

#	MODULE	ACTIVITY
01	SSIS Overview	Lab 1: SSIS Overview: Use the Import/Export Wizard from SSMS
02	Working with Solutions and Projects	Lab 1: Working with Solutions and Projects: Import and run a package in SSDT-BI
03	Basic Control Flow	Lab 1: Basic Control Flow: Precedence Constraints and Execute SQL Task
04	Common Tasks	LAB 1: COMMON TASKS - Create a package to copy a file and send an email message on completion - Create a package to perform data profiling and then review the results - Create a master package and test the execution flow of the child packages
05	Data Flow Sources and Destinations	Lab 1: Data Flow Sources and Destinations: Working with Data Sources and Destinations
06	Data Flow Transformations	LAB 1: DATA FLOW TRANSFORMATIONS - Working with Derived Column Transformations - Working with Lookup Transformations
07	Making Packages Dynamic	Lab 1: Making Packages Dynamic: Making a Package Dynamic
08	Containers	Lab 1: Containers: Use a Foreach Loop container to send a custom email to the names found in a database view
09	Troubleshooting and Package Reliability	LAB 1: TROUBLESHOOTING AND PACKAGE RELIABILITY - Creating a Script Task to Merge Error Messages - Configure a package to use transactions
10	Deploying to the SSIS Catalog	LAB 1: DEPLOYING TO THE SSIS CATALOG - Deploying a Project to the SSIS Catalog - Manually executing a Package
11	Installing and Administering SSIS	Lab 1: Installing and Administering SSIS: Automating Package Execution
12	Securing the SSIS Catalog	Lab 1: Securing the SSIS Catalog: Securing the SSIS Catalog

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

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