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Sign up

SSIS Training: Implementing a Data Warehouse with SSIS and SQL Server

3 days (21 hours)

Presentation

Business Intelligence is a set of tools and methods designed to help companies make informed decisions based on relevant data.

Internal (and even external) company data is collected from a multitude of sources. It is transformed into intelligible business information via intuitive, hard-hitting reports, all with the aim of enabling the company's decision-makers to understand the situation and make the best decisions.

BI tools include ETL (Extract - Transform - ETL), which extracts data, transforms it (cleansing, aggregation, calculations, etc.) and loads it into a data warehouse. This is a huge relational database created to store cleansed data for further processing.

In this training session, we'll look at how an ETL works, the different stages of data integration, data warehouse modeling and loading the data warehouse.

The Microsoft BI suite is a set of tools for carrying out a BI project from A to Z. It includes all the components of a complete BI project: MSSQL (Microsoft SQL Server) (Data Warehouse), SSIS (ETL), SSAS (Cube), SSRS (Reporting).

During this course, we will only be using the SQL Server and SSIS bricks.

Objectives

- Understanding Business Intelligence
- Understanding the ETL process and its role in a Big Data project
- Creating an SSIS package
- Deploy your project on SQL Server and automate SSIS uploads

Target audience

- Data Engineers
- BI Consultants
- BI Developers

Materials required

- Windows (or a virtual machine running Windows)
- SQL Server 2019 Developer (free license)
- SQL Server Management Studio
- Visual Studio - SSDT (free license)

Prerequisites

No prerequisites

SSIS (SQL Server Integration Services) training program

- Discover Business Intelligence
- The place of ETL and Datawarehouse in a BI project
- Learn how to model a data warehouse (Star, Flake, Constellation)
- Understand the different stages of data integration (STA / ODS / DWH)
- Discover the Visual Studio interface and create an SSIS package
- Import data from multiple sources
- Use the main SSIS tasks and transformations
- Manage errors and generate rejects
- Feed dimensions according to their SCD type (0,1,2)
- Feeding a fact table
- Set up a package scheduler
- Deploying the project on SQL Server
- Automate SSIS loading with the SQL Server agent

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.