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Sign up

Data Integration with Talend Data Fabric Training

3 days (21 hours)

Overview

Data integration with Talend Data Fabric enables you to design, automate, and monitor ETL workflows to centralize and effectively leverage data.

Our Data Integration with Talend Data Fabric training will help you master the design of ETL flows, data transformation and cleansing, and workflow automation.

You will learn how to connect different data sources, structure ETL processes, monitor workflows, and scale your data pipelines in Talend Data Fabric.

Upon completion of the training, participants will be able to design and execute ETL workflows.

Like all our courses, this one will introduce you to **the latest stable version** of the technology and its new features.

Objectives

- Design and automate ETL flows.
- Transform and clean data.
- Deploy and monitor Talend jobs.
- Connect Talend to various data sources.

Target Audience

- Integrators
- Data engineers

Prerequisites

- Basic knowledge of SQL and ETL

Technical prerequisites

- At least 8 GB of RAM, 16 GB recommended
- 30 GB of available disk space
- Windows, Linux, or macOS with internet access and a modern browser; Chrome is recommended for the labs
- Talend Data Fabric or Talend Studio installed, or accessible via a lab environment
- Java 17 installed if Talend Studio is used locally
- Access to test files or databases: CSV, XML, JSON, or SQL database

Course Outline for Data Integration with Talend Data Fabric

[Day 1 - Morning]

Designing ETL flows with Talend Data Fabric

- Understanding the principles of ETL and data integration
- Getting started with the Talend Data Fabric environment
- Creating and organizing an ETL project
- Structuring a data processing workflow
- Identifying the components suited to business needs
- Hands-on workshop: Creating your first ETL workflow.

[Day 1 - Afternoon]

Connecting and integrating data sources

- Connecting to CSV, XML, and JSON files
- Connecting to relational databases
- Creating and managing data schemas
- Using Repository metadata
- Organizing connections and reusing components
- Hands-on workshop: Integrating multiple data sources.

Transforming and cleaning data

- Using the tMap component
- Data transformation and enrichment
- Applying filters and sorting
- Managing joins and rejects
- Preparing data for business use
- Hands-on workshop: Cleaning and transforming a dataset.

[Day 2 - Morning]

Automating ETL workflows

- Using context variables
- Scheduling and automating processes
- Managing dependencies and triggers
- Organizing sub-jobs and workflows
- Reusing ETL processes
- Hands-on workshop: Automating a Talend workflow.

[Day 2 - Afternoon]

Monitoring and supervising processes

- Log and error management
- Monitoring job execution
- Detecting and handling anomalies
- Conditional execution of processes
- ETL monitoring best practices
- Hands-on Workshop: Analyzing and Correcting Errors in a Workflow

Deploying and scaling Talend jobs

- Generating a standalone job
- Job version management
- Deploying ETL Workflows
- Scaling up processing
- Optimizing and maintaining workflows
- Hands-on workshop: Deploying a complete Talend job.

[Day 3 - Morning]

Integrating advanced services and data flows

- Connecting to APIs and Web services
- Extracting and processing remote data

- Managing data exchanges between systems
- Structuring complex data flows
- Best practices for multi-source integration
- Hands-on workshop: Integrating an API into an ETL workflow.

[Day 3 - Afternoon]

Comprehensive hands-on case study on data integration

- Analysis of an ETL business requirement
- Designing a processing workflow
- Data transformation and cleansing
- Automation and monitoring of processing
- Deployment of a complete ETL pipeline
- Hands-on workshop: Completing a full project with Talend Data Fabric.

Target Audience

This training is intended for both individuals and companies, large or small, seeking to train their teams in new advanced IT technologies or to acquire specific business knowledge or modern methodologies.

Assessment upon enrollment

The pre-training assessment complies with Qualiopi quality standards. Upon final registration, the learner receives a self-assessment questionnaire that allows us to evaluate their estimated proficiency in various types of technologies, as well as their expectations and personal goals regarding the upcoming training, within the limits imposed by the selected format. This questionnaire also allows us to anticipate certain connection or internal security issues within the company (intra-company or virtual classroom) that could pose challenges for monitoring and ensuring the smooth running of the training session.

Teaching Methods

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

Organization

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

Assessment

At the end of the session, a multiple-choice questionnaire is used to verify that the skills have been properly acquired.

Certification

A certificate will be issued to each trainee who has completed the entire training program.