

Talend Studio ETL Foundations

Build, transform, troubleshoot and deploy introductory integration jobs

FA-0753 · 2 days

Data & Analytics · Software Development

Introduction

Learn the fundamentals of Talend job design for extraction, transformation and loading. Guided exercises cover supported data connections, cleansing, mapping, orchestration and troubleshooting.

The two-day course introduces the interface and essential job-building patterns rather than comprehensive enterprise administration. Exercises require an authorised supported Talend Studio training environment.

Learning outcomes

- Create simple ETL jobs using available file, database and service connectors.
- Apply mappings, joins, lookups, aggregation, sorting, filtering and concatenation.
- Use variables and contexts to parameterise jobs and improve usability.
- Organise parent and child jobs and pass parameters or data appropriately.
- Debug jobs, add logging and test transformation assumptions.
- Build a standalone job and explain scheduling or event-triggered execution in a prepared environment.
- Use basic SQL and Java expressions needed for introductory Talend work.

Prerequisites

Basic computer and data-handling skills. SQL and Java fundamentals are introduced at a practical level, not taught as complete language courses.

Access to an appropriately licensed supported Talend Studio installation, compatible JDK, prepared files and a training database or service. Use the vendor compatibility matrix for the selected patch; current Studio releases require Java 21 to launch. Required connectors, approved network access, certificate trust and installation permissions should be prepared before training.

Training outline

1. Day 1 — Environment, connections and basic jobs

- Training environment, interface and a first Hello World job.
- SQL and Java basics for data integration; connections, TLS certificates and data sources.
- Read and write files and database data.
- Introduction to JSON, XML, REST services and feeds using available connectors.
- Variables, contexts and basic transformations.

2. Day 2 — Transformations, orchestration and delivery

- Mapping, cleansing, filtering, lookups, concatenation, joins, aggregation and sorting.
- File-management patterns and organising reusable jobs.
- Parent/child job orchestration and passing values between levels.
- Debugging, logging, versioning and context loading.
- Build and deploy a small standalone job; demonstrate scheduling or event triggers where the prepared environment supports them.
- Practical assessment of a complete introductory integration workflow.