



Talend - Course Curriculum

1. Role of Open Source ETL Technologies in Big Data

- Overview on: TOS (Talend Open Studio) for Data Integration
- ETL concepts
- Data warehousing concepts

2. Talend

- Why Talend?
- Features
- Advantages
- Talend Installation/System Requirements
- GUI layout (designer)

- Understanding it's Basic Features
- Comparison with other market leader tools in ETL domain
- Important areas in Talend Architecture: Project
- Workspace
- Job
- Metadata
- Propagation
- Linking components

3. Talend: Read & Write various Types of Source/Target System

- Data Source Connection
- File as Source
- Create meta data
- Database as source
- Create metadata
- Using MySQL database (create tables, Insert, Update Data from Talend)
- Read and write into excel files, into multiple tabs
- View data
- How to capture log and navigate around basic errors
- Role of tLogrow and how it makes developers life easy

4. Talend: How to Transform Your Business: Basic

- Using Advanced components like: tMap, tJoin, tFilter, tSortRow, tAggregateRow, tReplicate, tSplit, Lookup, tRowGenerator

5. Talend: How to Transform Your Business: Advanced 1

- Trigger (types) and Row Types
- Context Variables (parameterization)

- Functions (basic to advanced functions to transform business rules such as string, date, mathematical etc.)
- Accessing job level / component level information within the job

6. Talend: How to Transform Your Business: Advanced 2

- Type Casting (convert data types among source-target platforms)
- Looping components (like tLoop, tFor)
- tFileList
- tRunJob
- How to schedule and run talend DI jobs externally (not in GUI)

7. Working with Hierarchical File Structures

- Read and Write an XML file, configure the schema and XPath expression to parse an XML file
- Read and Write a JSON file, configure the schema and JSONPath expression to parse a JSON file
- Read and write delimited, fixed width files.

8. Context Variables and Global Variables

- Create context/global variables
- Use context/global variables in the configuration of Talend components
- Load context variables from a flow

9. Best practices

- Working with databases and implementing data warehousing concepts
- Working with files (excel, delimited, JSON, XML etc.)

10. Orchestration and Controlling Execution Flow

- Files - Use components to list, archive, and delete files from a directory
- Database – Controlling Commit and Rollback

- COMMIT at end of job/ every x number of rows
- Rollback on error

11. Shared DB connection across jobs and subjobs

- Use triggers to connect components and subJobs
- Orchestrate several jobs in master jobs.
- Handling Errors
 - Kill a Job on a component error
 - Implement a specific Job execution path on a component error
 - Configure the log level in the console

statement of accounts