Informatica PowerCenter 9.x/10.x: Developer, Level 1

Course Summary

Description

This four day, instructor-led course introduces students to Informatica PowerCenter 9.6/10.x through lecture and hands-on exercises. The course is designed for Database Developers who are new to Informatica PowerCenter. Informatica PowerCenter is a collection of thick client workbench tools that Developers can use to create, execute, monitor and schedule ETL processes. The course will introduce attendees to working with the PowerCenter Designer, Workflow Manager, and Workflow Monitor tools, performing tasks such as creating transformations, mappings, reusable objects, sessions and workflows to extract, transform and load data. They will develop cleansing, formatting, sorting and aggregating procedures. They can learn how to use routers, update strategies, mapping parameters /variables and overrides. This course will cover many different types of lookups, such as cached, persistent, and multiple row returns. Workflow tasks will be created to define a set of instructions for executing the ETL.

Objectives
At the end of this course, students will be able to:

- Use Informatica Support to resolve questions and problems with PowerCenter 9.6/10.x
- Use PowerCenter 9.6/10.x Designer to build mappings that extract data from a source to a target, transforming it as necessary.
- Use PowerCenter transformations to cleanse, format, join, aggregate and route data to the appropriate targets
- Perform error handling/trapping using PowerCenter mappings
- Use PowerCenter 9.6/10.x Workflow Manager to build and run a workflow which executes a sessions associated with a mapping
- Design and build simple mappings and workflows based on essential business needs.
- Perform basic troubleshooting using PowerCenter logs and debugger.

Topics

- An Overview of Informatica PowerCenter 9.6/10.x
- ETL Fundamentals
- Trouble Shooting
- PowerCenter Transformations, Tasks, and Reusability
- Features and Techniques
- Joins and Link Conditions
- Using the Debugger

- Sequence Generators, Lookups, and Caching
- Update Strategies, Routers, and Overrides
- Sorter, Aggregator, Unconnected Lookups, Mapping Parameter/Variables, and Mapplets/Worklets
- Mapping Design Workshop
- Workflow Design Workshop

Audience

This course is designed for Data Integration developers with little or no experience of PowerCenter.

Prerequisites

There are no prerequisites for this course.

Duration

Four days

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Course Outline

I. An Overview of Informatica PowerCenter 9.6/10.x
A. Overview of PowerCenter covering areas such as the Architecture, Terminology, Tools GUI, Mappings, Transformations, Sessions, Workflows and Workflow Monitor

II. ETL Fundamentals
A. Create flat file and relational Sources using the Source Analyzer
B. Create flat file and relational Targets using the Target Developer
C. Mappings using the Mapping Designer
D. Workflows using the Workflow Designer
E. Monitor the workflow using the Workflow Monitor
F. Preview Target Data using the PowerCenter Designer

III. Trouble Shooting
A. Understand PowerCenter Log files
B. Use PC log files to:
  1. View and look up error messages
  2. Correct mapping and workflow errors

IV. PowerCenter Transformations, Tasks, and Reusability
A. Define list of PC Designer Transformations and Workflow Tasks
B. Clarify Active vs. Passive Transformations
C. Use the Expression Transformation and Editor in a mapping which applies a file list to load multiple flat files into a stage table utilizing expression and filter transformations to format and screen erroneous customer data.
D. Use Reusable Designer Transformations to apply same formatting logic to Employee records

V. Features and Techniques
A. Outline use of Arrange All and Arrange All Iconic
B. Show 'Autolink' feature
C. Show 'Select Link Path' feature
D. Define Propagation of Port Properties

VI. Joins and Link Conditions
A. Define Joins
B. Clarify Heterogeneous vs Homogeneous Joins
C. Use a Joiner Transformation to join relational and flat file sources
D. Use the Source Qualify to join two relational sources
E. Make use of Link Conditions to execute one session when the first finishes successfully.

VII. Using the Debugger
A. Outline Debugger Interface
B. Show creation of a break point
C. Show 'Evaluate the Expression' functionality
D. Re-Execute mapping with different values

VIII. Sequence Generators, Lookups, and Caching
A. Define the Sequence Generator
B. Define the Lookup Transformation
C. Understand the different types of Lookups
D. Clarify Lookup Caching
E. Use a Flat File Lookup to add data to a relational target.
F. Create a Multiple Row Return Lookup, use Aggregators and Expressions to count the number of orders a Customer has as well as total the sales for that customer. Add those values to a target.
G. Build a Dates Lookup Cache for use in determining start and end dates of target records

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Course Outline (cont'd)

H. Utilize Event Wait, Event Timer and Email Tasks to wait for flat files and email users upon successful/failed load.

I. Use a decision task to set criteria by which the workflow will decide which execution branch to follow

IX. Update Strategies, Routers, and Overrides

A. Build a mapping that uses Update Strategies and Routers to determine insert/update logic for a target. Overrides will be used for incremental (daily) loading of the target.

X. Sorter, Aggregator, Unconnected Lookups, Mapping Parameter/Variables, and Mapplets/Worklets

A. Unconnected Lookups

B. Mapping Parameter/Variables and Mapplets/Worklets

C. Define Sorter Transformation

D. Detail Aggregator Transformation and Aggregate Functions

E. Explain Unconnected Lookups and how they are called.

F. Describe Mapping Parameters/Variables and initialization priority

G. Outline Mappets and Worklets

H. Use these Transformations to create a mapping which loads records from warehouse Dimension tables to a Fact table.

I. Parameter File Instruction.

XI. Mapping Design Workshop

A. Business requirement details will be provided so that the student can design and build their own mapping necessary to load a Promotions Aggregate table. The workshop will provide Velocity Best Practices documents that can be used to determine the correct logic for the mapping

XII. Workflow Design Workshop

A. Business requirement details will be provided so that the student can design and build their own workflow necessary to load all staging tables in a single workflow. The workshop will provide Velocity Best Practices documents that can be used to determine the correct logic for the workflow.