

ETL Testing – Informatica with DWH Concepts

Duration: 6 Weekend (Weekend Batch)

Prerequisites

- Knowledge of Manual Testing
- Knowledge of DBMS/SQL is advantageous

Course Content

I. Database/SQL

- **RDBMS Concepts**
 - Data Models
 - Entity Relationship Model
 - Normalization
 - DBMS, RDBMS, ORDBMS
- **SQL Overview**
 - Introduction to SQL
 - Data types
 - SELECT Statement
 - Operators
 - Pseudo Column
- **SQL Statements**
 - Data Definition Language (DDL)
 - Data Manipulation Language (DML)
 - Transaction Control Language (TCL)
 - Data Control language (DCL)
- **Join**
 - Inner/Equi Join
 - Non-Equi/Cross Join
 - Self Join
 - Outer Join
- **Constraints**
 - Primary Key Constraint
 - Foreign Key Constraint
 - Unique Key Constraint
 - Not Null Constraint
 - Check Constraint
- **Set Operator**
 - Union
 - Union All
 - Intersection
 - Minus
- **Sub Query**
 - Sub/Inner Query
 - Correlated Sub Query
- **Object**
 - Index
 - Synonym
 - View
- **Built-in Functions**
 - Aggregate Functions
 - Character Function
 - String Functions
 - Case Manipulation Functions
 - Date Functions
 - Analytical Functions

II. Datawarehousing/ETL

- **Datawarehousing Fundamental**
 - Datawarehousing Overview
 - DWH Characteristics
 - Types of Datawarehousing
 - Data Mart
 - Database vs Data Warehouse
 - Data Mart vs Data Warehouse
 - Data Warehouse benefits
 - DWH Architecture
 - **Datawarehousing Terminologies**
 - Data Cleansing, Partitioning
 - Staging area, Metadata
 - OLTP, OLAP, ROLAP, MOLAP
 - Surrogate Key
 - Snapshot, View and Materialized View
 - Meta Data, Data Mining & Data Cube
 - **Dimension Modeling**
 - Facts and Dimensions
 - Hierarchies and Levels
 - Measures & DWH Schema
 - Star, Snow-flake and Galaxy Schema
 - Additive, Semi Additive, Non Additive Fact/Measure
 - **ETL Overview**
 - Process Flow of ETL
 - Types of Sources and Target
 - ETL Data Load types
 - Active vs Passive transformation
 - Extraction Methods in ETL
 - Tracing Level
 - Types of Data used for ETL Process
 - **Slowly Changing Dimension**
 - What is Slowly Changing Dimension?
 - SCD Types : Type-1, Type-2, Type-3
 - **ETL Testing Process**
 - Categories of ETL Testing
 - Types of ETL Testing
 - How to create ETL Test Case
 - ETL Test Scenarios and Test Cases
 - Types of ETL Bugs/Defects
 - Responsibility of ETL Tester
 - **OBIEE/BI Overview**
 - Introduction to OBIEE
 - Business Intelligence Basics
 - Overview of Reports
 - Slice and Dice
 - Roll-up and Drill-down & Pivot
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III. Informatica Power Center Tool

- **Informatica Tool Overview**
 - Introduction to Informatica
 - How developers work on Power Center
 - Different components of Power Center and uses
 - Tasks performed in different Components
 - Mapping, Session, Worklet, Workflow, Mapplet
 - Naming Conventions
- **Designer Component**
 - Working with Sources
 - Working with Flat Files
 - Working with Targets
 - Data Transformation Source and Target
 - Mapping Parameters and Variables
 - Uses of Mapping Wizards
- **Workflow Manager Component**
 - Workflow Manager Overview
 - Workflow Designer
 - Task Developer
 - Worklet Designer
 - Using Workflow Wizard
 - Creating a Task
 - Configuring Task
 - Workflow links
 - Validating Tasks, Workflows
 - Scheduling and Running Workflows
- **Workflow Monitor Component**
 - Workflow Monitor Overview
 - Using Workflow Monitor
 - Working with Tasks and Workflows
 - Workflow and Task Status
 - Using Gantt Chart and Task Views
 - Session and Workflow Logs
- **Transformation**
 - How to use Transformations
 - Aggregator Transformation
 - Expression Transformation
 - Filter Transformation
 - Router Transformation
 - Union Transformation
 - Rank Transformation
 - Sorter Transformation
 - Joiner Transformation

IV. UNIX/LINUX

- **Basics of Unix/Linux**
 - Overview of UNIX Operating System
 - Useful Commands
 - Command Manuals
 - Regular Expressions
 - Filter
 - File Attributes
 - Job Scheduling
 - Archive/Compress File
 - Editor : vi, sed
 - Processes
 - File copy/transfer in UNIX Server
 - **Shell Script**
 - Input/output Redirection
 - Piping
 - Operators
 - Shell Arithmetic
 - Quoting and Escape Mechanism
 - Types of Variables
 - Environment variables
 - Write and execute Shell Program
 - Functions
 - Conditional Statements and Loops
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