

Datawarehousing - ETL Testing

Duration: 7-8 Weekend (Sat/Sunday Batch)

Prerequisites

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

Module I: Data Base SQL

1. RDBMS Concepts

- Data Models
- Entity Relationship Model
- Normalization
- DBMS, RDBMS, ORDBMS

2. SQL Overview

- Introduction to SQL
- Data types
- SELECT Statement
- Operators
- Pseudo Column

3. SQL Statements

- DDL, DML, DCL & TCL

4. Join

- Inner/Equi Join
- Non-Equi/Cross Join
- Self Join & Outer Join

5. Constraints

- Primary Key Constraint
- Foreign Key Constraint
- Unique Key Constraint
- Not Null Constraint
- Check Constraint

6. Set Operator

- Types of Operators

7. Sub Query

- Sub/Inner Query

8. Built-in Functions

- Aggregate Functions
- Character Function
- String Functions
- Case Manipulation Functions
- Date Functions
- Analytical Functions

Module II: Datawarehouse/ETL

1. Datawarehouse Fundamental

- Datawarehouse Overview
- DWH Characteristics
- Types of Datawarehouse
- Data Mart
- Database vs Data Warehouse
- Data Mart vs Data Warehouse
- Data Warehouse benefits
- DWH Architecture

2. Datawarehouse Terminologies

- Data Cleansing, Partitioning
- Staging area, Metadata
- OLTP, OLAP, ROLAP, MOLAP
- Surrogate Key
- Snapshot, View and Materialized View
- Meta Data, Data Mining & Data Cube

3. Dimension Modeling

- Facts and Dimensions
- Hierarchies and Levels
- Measures & DWH Schema
- Star, Snow-flake and Galaxy Schema
- Additive, Semi Additive, Non Additive Fact/Measure

4. 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

5. Slowly Changing Dimension

- What is Slowly Changing Dimension?
- SCD Types : Type-1, Type-2, Type-3

6. 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

7. OBIEE/BI Overview

- Introduction to OBIEE
- Business Intelligence Basics
- Overview of Reports
- Slice and Dice
- Roll-up and Drill-down & Pivot

Module III: Informatica Power Center Tool

1. 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

2. 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

3. 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

4. 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

5. Transformation

- How to use Transformations
- Aggregator Transformation
- Expression Transformation
- Filter Transformation
- Router Transformation
- Union Transformation
- Rank Transformation
- Sorter Transformation
- Joiner Transformation

Module IV: UNIX/LINUX

1. Overview of UNIX Operating System

2. Useful Commands

3. Command Manuals

4. Regular Expressions

5. Filter

6. File Attributes

7. Job Scheduling

8. Archive/Compress File

9. Editor : vi, sed

10. Processes

11. File copy/transfer in UNIX Server

Hands on Experience on Live Scenario based Projects

- ❖ A Web based project like E commerce based Project
- ❖ Projects based on Supply Chain Management Domain.