

CELEBRATING  
12 YEARS

Quality Thought®



# ETL TESTING

**Course Duration**  
**60 Days**

**Total Sessions Hours**  
**120 Hrs**

### How ETL Testing different from Manual testing

ETL basically stands for Extract Transform Load - which simply implies the process where you extract data from Source Tables, transform them in to the desired format based on certain rules and finally load them onto Target tables. There are numerous tools that help you with ETL process - Informatica, Abintio and Data stage few notable ones.

So ETL Testing implies - Testing this entire process using a tool or at table level with the help of test cases and Rules Mapping document. With the help of SQL queries we need to validate data from source to target.

### Who are eligible to take ETL Testing Training course

- ⇒ Testers who want to get job on ETL Testing, to get more salary and also who want to get job quickly.
- ⇒ Who are having very basic knowledge on Database concepts eligible to attend training?
- ⇒ Graduates in Business Administration are expected to have the knowledge of the ETL training for BI.
- ⇒ This training is essential for those who are seeking increments and promotions to enhance their skills & to become a professional in database management.

## Data warehousing Concepts

- ⇒ Introduction to data warehousing
- ⇒ What is Data Warehousing
- ⇒ Architecture of Data Warehousing
- ⇒ Characteristics of the Data Warehousing
- ⇒ What is OLTP & OLAP AND difference between OLTP & OLAP
- ⇒ Data mart/ Data Warehouse
- ⇒ Dimensional modeling
- ⇒ Different Types of Dimensions and Facts.
- ⇒ Slowly Changing Dimensions (Type-1,2,3)

## Database Concepts (Using Teradata)

### Teradata SQL

- ⇒ SQL fundamentals
- ⇒ DDL Statements
- ⇒ DML Statements
- ⇒ Logical operations
- ⇒ Arithmetic operations
- ⇒ Group & Aggregation functions
- ⇒ String functions
- ⇒ Format functions
- ⇒ Cast functions
- ⇒ Conditional expressions
- ⇒ Set Operators (Union, Intersect, Minus)
- ⇒ Case, Coalesce, Nullify
- ⇒ Inner join
- ⇒ Outer Join
- ⇒ Self-Join
- ⇒ Cross Join
- ⇒ OLAP Functions  
(Rank, Csum, Msum, Mdiff, Row Number)

## Teradata Basics

- ⇒ What Is Teradata Why for It Is What For It Is
- ⇒ What is Teradata?
- ⇒ Why Teradata?
- ⇒ Teradata Architecture & its Components
- ⇒ SMP Architecture
- ⇒ MPP Architecture
- ⇒ Parsing engine(PE) Architecture
- ⇒ AMP Architecture & uses
- ⇒ By net Benefits & types
- ⇒ Virtual processors

## Teradata Objects

- ⇒ Types of tables
- ⇒ Set tables
- ⇒ Multi Set tables
- ⇒ Temporary tables
- ⇒ Global temporary tables
- ⇒ Derived tables
- ⇒ Volatile Tables
- ⇒ Views

## Teradata Memory Spaces

- ⇒ Permanent spaces
- ⇒ Temporary spaces
- ⇒ Spool spaces

## How to Storage & Retrieval of Data

- ⇒ Hash algorithm    ⇒ Hash map
- ⇒ Row hash            ⇒ Receiving V Disc

## Teradata Indexes

- ⇒ Types of indexes in Teradata
- ⇒ Primary index(unique, non- unique)
- ⇒ Secondary index(unique, non- unique)
- ⇒ Partition Primary Index

## Recovery & Protection of Data

- ⇒ Fall Back
- ⇒ Journaling

## Teradata Performance Tuning On SQL Assistance

- ⇒ Explain usage
- ⇒ Collecting statistics
- ⇒ SQL tuning
- ⇒ Various SQL statements

## Basic overview about Teradata Utilities & Tools

- ⇒ Bteq
- ⇒ Multiload
- ⇒ Fastload
- ⇒ T pump
- ⇒ Fast export



## ETL Informatics PowerCenter

### PowerCenter Components

- ⇒ Designer
- ⇒ Repository Manager
- ⇒ Workflow Manager
- ⇒ Workflow Monitor 9.1

### Informatica Concepts and Overview

- ⇒ Informatica Architecture.
- ⇒ Source Analyzer
- ⇒ Target Designer
- ⇒ Transformations
- ⇒ Mappings
- ⇒ Sessions
- ⇒ Workflows

### Sources

- ⇒ Working with Relational Sources
- ⇒ Working with Flat Files

### Targets

- ⇒ Working with Relational Targets
- ⇒ Working with Flat file Targets

### Transformations

- ⇒ Active and Passive Transformations
- ⇒ Source Qualifier
- ⇒ Expression    ⇒ Sequence Generator
- ⇒ Filter            ⇒ Joiner
- ⇒ Union            ⇒ Sorter
- ⇒ Rank             ⇒ Router
- ⇒ Aggregator    ⇒ Normalizer
- ⇒ Lookup

### Workflow Manger

- ⇒ Server Architecture
- ⇒ Workflows & Sessions

### Conclusion

- ⇒ Real Time Scenarios

## ETL Testing Concepts

- ⇒ Importance of ETL Testing
- ⇒ Responsibilities of ETL Tester
- ⇒ Real time scenarios for ETL Tester
- ⇒ Different approaches for ETL Testing
- ⇒ How to validate data for multiple sources
- ⇒ ETL testing workflow process
- ⇒ How to prepare queries using Mapping rules
- ⇒ How to prepare ETL Test Plan
- ⇒ How to prepare Estimates
- ⇒ How to design Test Cases
- ⇒ How to design Test Scenarios
- ⇒ How to prepare Test scripts
- ⇒ How to prepare Test data for test cases
- ⇒ How to execute ETL Test Cases
- ⇒ Defect Tracking and Reporting
- ⇒ Types of defect in ETL Testing
- ⇒ Challenges in ETL Testing
- ⇒ How to detect bugs through queries

## Project Essentials

- ⇒ Project Name
- ⇒ Project Description:
- ⇒ Client Name:
- ⇒ Client Description:
- ⇒ Business Background of Project
- ⇒ Process followed in the Project:
- ⇒ Tools used in the Project:
- ⇒ Environments in the Project:
- ⇒ Team Size:
- ⇒ Project Architecture:
- ⇒ Testing Life Cycle in the Project:
- ⇒ Query Tracker:
- ⇒ Test Plan preparation:
- ⇒ Test Cases preparation:
- ⇒ Requirement Traceability Matrix:
- ⇒ Review process in Project:
- ⇒ Test case Execution:
- ⇒ Defect Life Cycle in project:
- ⇒ Role of Quality Centre in project:
- ⇒ Regression Testing in Project:
- ⇒ Bugs Identified in Project:



# STUDENT TRANSFORMATION STAGES



## OUR STUDENTS ARE PLACED IN
