



# ETL Testing Training Curriculum

(Extract, Transform and Load)

## STRUCTURE



# ETL Testing Training Curriculum

## About Croma Campus:

Croma Campus Training & Development Private Limited is an education platform since 2010 providing rigorous industry-relevant programs designed and delivered in collaboration with world-class faculty and industry.

- Hands-On Live Projects
- Simulation Test Papers
- Industry Cases Studies
- 61,640+ Satisfied Learners
- 140+ Training Courses
- 100% Certification Passing Rate
- Live Instructor Classroom / Online Training
- 100% Placement Assistance

## Training Program Objectives:

- Understand the concepts of Business Intelligence Data Warehousing
- Gain an in-depth understanding of Data Warehouse WorkFlow and comparison between Database Testing and Data Warehouse Testing
- Perform data Checks using SQL and understand the scope of BI Testing
- Get to know what ETL Testing, QA Lifecycle and RDBMS Concepts
- Understand different ETL Testing scenarios like Constraint Testing, Source to Target Testing, Business Rules Testing, Negative Scenarios, Dependency Testing

## Croma Campus Training Program Deliverables:

- **Session Recordings** - Original Classroom Voice & Video Recording
- **Training Material** - Soft Copy Handbooks
- **Assignments** | Multiple Hands-on Exercises
- **Test Papers** - We provide **Practice Test** as part of our course to help you prepare for the actual certification exam.
- **Live Case Studies**
- **Live Projects** - Hands-on exercises and Project work. You will work on real time industry-oriented projects and assignments for each module to practice.
- **Key focus on Hands-on exercises and Project work.** You will work on real time industry-oriented projects.
- Faculty with more than **10+ Years of Experience** in the Industry.
- **Technical Resume Designing & Job Assistance:** With more than 100+ Clients across the Globe and we help learners to get a good job in their respective field. We also help learners with resume preparation.
- **About Croma Campus Training Certificate:** Croma Campus will provide you with an industry-recognized (Certified by **ISO 9001:2015 & E-Cell IIT Jodhpur**) course completion certificate, which has lifelong validity.

- **How I unlock my Croma Campus Certificate:** Attend Complete Batch & Submit at least One Completed Project.
- **Interview Q&A**

## **ETL Testing Training Description:**

DW/BI/ETL Testing Training Course is designed for both entry-level and advanced Programmers. The course includes topics related to the foundation of Data Warehouse with the concepts, Dimensional Modeling and important aspects of Dimensions, Facts and Slowly Changing Dimensions along with the DW/BI/ETL set up, Database Testing Vs Data Warehouse Testing, Data Warehouse Workflow and Case Study, Data Checks using SQL, Scope of BI testing and as a bonus you will also get the steps to set up the environment with the most popular ETL tool Informatica to perform all the activities on your personal computer to get first hand practical knowledge.

## **Training Program Modules:**

- DWH: Data Ware Housing Concepts
- ETL Testing
- Challenges in DWH ETL Testing compare to other testing
- ETL Testing flow activities involved
- Type of ETL testing
- Different ETL tools available in the market
- Power Centre Components
- Informatica Concepts and Overview
- Sources
- Targets
- Transformation Active and Passive Transformations
- Slowly changing dimension
- Workflow manger
- Timer task
- Performing Tuning

## **Module 1: DWH: Data Ware Housing Concepts**

- What is Data Warehouse?
- Need of Data Warehouse.
- Introduction to OLTP, ETL and OLAP Systems
- Difference Between OLTP and OLAP
- Data Warehouse Architecture
- Data Marts
- ODS (Operational Data Store)
- Dimensional Modelling
- Difference Between relation and dimensional modelling
- Star Schema and Snowflake Schema
- What is fact table

- What is the dimensional table?
- Normalization and De- Normalization

## **Module 2: ETL Testing**

- ETL Architecture.
- What is ETL and importance of ETL testing
- How DWH ETL Testing is different from the Application Testing
- SDLC / STLC in the ETL Project (ex: V Model, Water fall model)

## **Module 3: Challenges in DWH ETL Testing compare to other testing**

- Incompatible and Duplicate Data
- Loss of data during ETL process
- Testers have no privileges to execute ETL jobs by their own.
- Volume and complexity of data is very huge.
- Fault in business process and procedures.
- Trouble acquiring and building test data.

## **Module 4: ETL Testing flow activities involved**

- Analyse and interpret business requirements/ workflow to create estimations
- Approve requirements and prepare the test plan documents provided by developer team
- Execute system testing and integration testing
- Best practice to create quality documentations (Test plan, Test Scripts, and Test closure summaries.
- How to detect the bugs in ETL testing?
- How to report the bus in ETL testing?
- How to co-ordinate with the developer team for resolving the defects.

## **Module 5: Type of ETL testing**

- Data completeness
- Data transformation
- Data quality
- Performance and scalability
- Integration testing.
- User acceptance testing.
- SQL Queries for ETL testing
- Increment load testing
- Initial Load/ Full load testing

## **Module 6: Different ETL tools available in the market**

- Informatica
- AB Initio
- IBM Data stage

## **Module 7: Power Centre Components**

- Designer
- Repository Manager
- Workflow Manager
- Workflow Monitor
- Power centre Admin Console

## **Module 8: Informatica Concepts and Overview**

- Informatica Architecture

## **Module 9: Sources**

- Working with relational Sources
- Working with flat files.

## **Module 10: Targets**

- Working with Relational targets
- Working with flat targets

## **Module 11: Transformation Active and Passive Transformations**

- Expressions
- By Lookup Different types of lookup Cache
- Sequence generator
- Filter
- Joi
- Store procedure

## **Module 12: Slowly changing dimension**

- Scd type 1
- Scd type 2
- Date, Flag and version
- Scd type 3

## **Module 13: Workflow manger**

- Creating Reusable tasks
- Workflows, Worklets & Sessions
- Tasks
- Session
- Decision Task
- Control task
- Event wait task

## **Module 14: Timer task**

- Monitoring workflows and debugging errors
- Indirect Loading
- Constraint based load ordering
- Target load plan
- Work let
- Migration ML migration and folder copy
- Scheduling workflow
- Parameter and variables
- XML source target and transformations

## **Module 15: Performing Tuning**

- Pipeline partition
- Dynamics partition
- Pushdown optimization
- Preparation of test cases
- Executing test case
- Preparing sample data
- Data validation in source and target
- Load and performing testing
- Unit and performance testing
- Unit testing procedure
- Error handling procedure