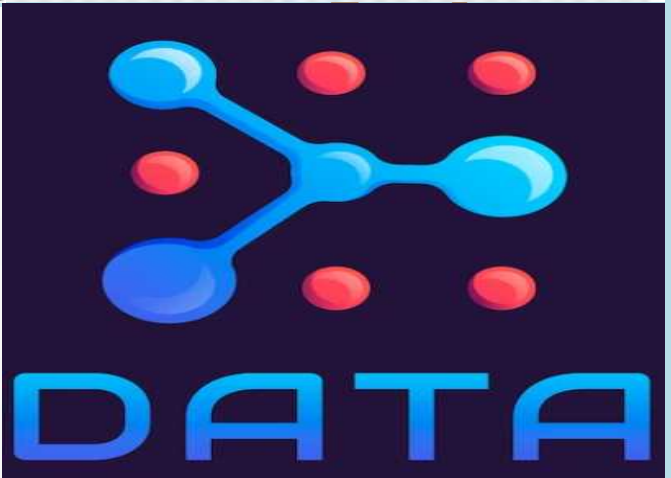


# Top Grade Curriculum



## Data Warehouse/ETL/BI Testing (Real Time Job Oriented Program) Course Syllabus



## About Digital Hub Tech

Digital Hub Tech is one of the State Govt, Central Govt and ISO Registered Institute which not only equips in Technology Skills but will train for free in Basic Soft Skills, Mock Interviews, Crack Interview Skills, Work Ethics, Corporate Values, etc that need to know to get into IT Industry. Our All Trainings are Very Special given by Expert Real Time Experienced Instructors and we enable each and every student of ours to do their own real time Project Work by the end of the Program.

We do not buy a Job by bribing Companies to secure a place in IT, instead we equip with the Skills needed to get employed in IT and will support you with number of relevant Opportunities so that career in IT becomes assured. Our support will be there before/after get placed in an IT Company as that's our mission too. If want to just have an IT Certification, You can do the Course anywhere. If you aspire to get into an IT Job, Digital Hub Tech is the Best Place to choose where your IT dream will definitely come into reality.

Please go through the long list of our Student Reviews to get more about us.

## About Data Warehouse/ETL/BI Testing Course

Database Testing is a type of software Testing that checks the Schema, Tables, Structures, Keys, Functions, Procedure, Data Validation, Data Consistent, etc. of the Database under Test. As Organizations develop, migrate, or consolidate data warehouses, they must employ best practices for Data Warehouse Testing. Extract, Transform, and Load (ETL) is the common process used to load data from source systems to the data warehouse. ETL Testing ensures that the transformation of data from source to warehouse is accurate. It also involves verifying data at each point between the source and destination. This Course covers Goals & Significance of Data Warehouse/ETL/BI Testing Responsibilities, Errors in DW and ETL Deployment in detail.

Currently, **Data Warehouse/ETL/BI Testing** related Technologies are Highly demand in IT Sector and Plenty of Career opportunities are there. Work towards making the most out of the rising career opportunities in this leading Database related domain by getting enrolled for the **Digital Hub Tech** Top listed Data related Course Training in Hyderabad.

This **Real Time Deep Drive Advance Data Warehouse/ETL/BI Testing Training Program** will make the Learners to Expert Level.

## Eligibility/Qualification

Highest Degree	: B.E/B.Tech/MCA/MBA/M.Sc/MS/ME/M.Tech/BCA/BSC/BCom/BA
Experienced Candidates	: Interested to build Career in Data Platform
Professional Role	: Developer, Tester, Production Support, Data Engineer
College Students	: Any Stream of Graduates & Post-Graduates, Freshers

## Additional Benefit

- ✓ Soft Copy & Hard Copy Materials
- ✓ Real Time Scenarios & Use Cases
- ✓ Interview Question Dump and Preparation
- ✓ Self based Training Kit (Soft Copy, Hard Copy, Recordings, Exercises, FAQ, etc.)
- ✓ Real Time Environment Hands on
- ✓ End to End Project Guidance & College Project Submission
- ✓ Internship
- ✓ Course Completion Certificate

# COURSE TRAINING PROGRAM

Course Duration : 40 Hours

## Pre-Requisites

- ❖ Operating System : Windows, Unix/Windows
- ❖ Database : DBMS Concepts, SQL, Database Testing
- ❖ Software Engineering : Concepts

## Module - I: Data Warehouse/ETL/BI Concepts

- ❖ Data Warehouse Fundamental
- ❖ Data Warehouse Terminologies
- ❖ Data Mart
- ❖ ETL Overview
- ❖ Datawarehouse Architecture
- ❖ Dimensional Modeling
- ❖ OLAP
- ❖ Data Warehouse Schema
- ❖ Partitioning
- ❖ Metadata
- ❖ Data Warehouse Dimension
- ❖ ETL Testing
- ❖ Business Intelligence
- ❖ Bigdata Hadoop Overview

## Module - II: ETL Tool (Informatica Power Center)

- ❖ Informatica Power Center Tool Overview
- ❖ Designer Component
- ❖ Workflow Manager Component
- ❖ Workflow Monitor Component
- ❖ Transformation
- ❖ Types Of LookUp Caches
- ❖ Power Center Functions
- ❖ Task Types

# COURSE CONTENT

## Module - I: Data Warehouse/ETL/BI Concepts & Testing

### + Chapter-01 : Data Warehouse Fundamental

- 1.1 Data Warehouse Overview
- 1.2 Features and Functioning of Data Warehouse
- 1.3 Types of Data Warehouse
- 1.4 Characteristics of Data Warehouse
- 1.5 Bill Inmon vs Ralph Kimball
- 1.6 Database vs Data Warehouse
- 1.7 Data Warehouse benefits

### + Chapter-02 : Data Warehouse Terminologies

- 2.1 Data Warehouse Tools and Utilities Functions
- 2.2 Data Cube
- 2.3 Data Mining
- 2.4 Surrogate Key
- 2.5 Snapshot, view and Materialized view
- 2.6 Normalized vs De-Normalized
- 2.7 Some important concepts

### + Chapter-03 : Data Mart

- 3.1 What is Data Mart ?
- 3.2 Steps to determine that Data Mart appears to fit the bill
- 3.3 Designing Data Marts
- 3.4 Cost of Data Marting
- 3.5 Reasons for creating a Data Mart
- 3.6 Types of Data Mart
- 3.7 Data Mart Properties

### + Chapter-04 : ETL Overview

- 4.1 Process Flow in Data Warehouse
- 4.2 Types of Sources and Target
- 4.3 Demanding ETL Tools in market
- 4.4 Extraction, Transformation & Load Method
- 4.5 Categories of Datawarehouse
- 4.6 Types of ETL Testing
- 4.6 Difference between ETL and BI Tools
- 4.7 ETL Life Cycle
- 4.8 OLTP vs ODS vs DWH

### + Chapter-05 : Datawarehouse Architecture

- 5.1 Three-Tier Data Warehouse Architecture
- 5.2 Data Warehouse Layers
- 5.3 Data Warehouse Design Approaches

## **Chapter-06: Dimensional Modelling**

- 6.1 Datawarehouse Fact, Dimension, Hierarchies and Level
- 6.2 Fact and Dimension Table
- 6.3 Measures

## **Chapter-07: OLAP**

- 7.1 What is OLAP ?
- 7.2 OLAP Operations
- 7.3 Advantages and Disadvantages

## **Chapter-08: Schema**

- 8.1 What is Schema?
- 8.2 Types of Schema

## **Chapter-09: Partitioning**

- 9.1 What is Partitioning
- 9.2 Why to Partition
- 9.3 Different Types of Partitioning

## **Chapter-10: Metadata**

- 10.1 What is Meta Data ?
- 10.2 Metadata Respiratory
- 10.3 Role of Metadata
- 10.4 Challenges for Metadata Management

## **Chapter-11: Data Warehouse Dimension**

- 11.1 About Data Warehouse Dimension
- 11.2 Different SCD Types and Uses

## **Chapter-12: ETL Testing**

- 12.1 How ETL works?
- 12.2 ETL Process
- 12.3 ETL Testing/QA Concepts
- 12.4 ETL Test Scenarios and Test Cases
- 12.5 Types of ETL Bugs
- 12.6 Difference between ETL Testing and Database Testing
- 12.7 Responsibilities of ETL Tester
- 12.8 Finding Bad Data
- 12.9 Activities in ETL
- 12.10 Handling Challenging Tasks
- 12.11 Testing Entry/Exit Criteria
- 12.12 Data Validation

## **Chapter-13: Business Intelligence**

- 14.1 What is Business Intelligence ?
- 14.2 What is OBIEE ?
- 14.3 BI Report Terminologies

- 14.4 Dashboard vs Report
- 14.5 Report UI Usecase & Testcase
- 14.6 BI Testing Documents

#### ✚ Chapter-14: Bigdata Hadoop Overview

- 15.1 Introduction to Bigdata
- 15.2 Big Data Challenges
- 15.3 Advantages and Disadvantages of Big Data
- 15.4 Characteristics of Bigdata
- 15.5 Data formats in Bigdata
- 15.6 Hadoop - Big Data Solutions

## Module - II: ETL Tool (Informatica Power Center)

#### ✚ Chapter-01: Informatica Power Center Tool Overview

- Introduction to Informatica
- Informatica Architecture
- How Developers work on Power Center
- Different Components and Uses
- Tasks/Session
- Mapping, Worklet, Workflow, Mapplet
- Naming Conventions

#### ✚ Chapter-02: Designer Component

- Different Sources and Targets
- Working with Different Databases
- Working with Flat Files
- Source and Target Define
- Uses of Mapping Wizards
- Mapping Parameters
- Mapping Variables

#### ✚ Chapter-03: Workflow Manager Component

- Uses of Workflow Wizard
- Worklet Designer
- Creating and Configuring Task
- Link Workflow and Session
- Validating Tasks and Workflows
- Scheduling and Running Workflows

#### ✚ Chapter-04: Workflow Monitor Component

- Uses of Workflow Monitor
- Working with Tasks and Workflows
- Re-Usable and Non Re-Usable Session
- Workflow and Task Status
- Using Gantt Chart and Task Views

- Session and Workflow Logs
- Abort vs Stop
- Check Session/Workflow Execution Summary
- Error Check
- DTM (Data Transformation Manager)
- Time Capture
- Pass/Fail Status Check

## ✚ Chapter-05: Transformation

- Source Qualifier Transformation
- Aggregator Transformation
- Filter Transformation
- Sorter Transformation
- Sequence Generator Transformation
- Normalizer Transformation
- Expression Transformation
- Router Transformation
- Union Transformation
- Rank Transformation
- Joiner Transformation
- Lookup Transformation
- SQL Transformation
- Stored Procedure Transformation
- Transaction Control Transformation
- Update Strategy Transformation
- XML Source Qualifier Transformation

## ✚ Chapter-06: Types Of LookUp Caches

- Static LookUp Cache
- Dynamic LookUp Cache
- Persistence lookup Cache
- Shared LookUp Cache
- Sorter and Rank Cache

## ✚ Chapter-07: Power Center Functions

- Numeric Functions
- String Functions
- Date Functions
- Case Conversion Functions
- Aggregate Functions
- User Defined Functions

## ✚ Chapter-08: Task Types

- Session
- Command
- EMAIL
- Timer
- Event Wait

- Event Raise
- Event Run
- Decision
- Assignment
- Control

## Course Completion Additional Benefits

- ◇ Resume Preparation Guidance
- ◇ Course Completion Certificate
- ◇ Work Support
- ◇ Certifications and Job Assistance

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