

## **ETL TESTING WITH PROJECT**



### **Chapter 1: Data warehouse Concepts**

- Understand data warehousing and how Business Intelligence works
- Data Warehousing Concepts (What/Why/How)
- Data Modeling (Schemas, FACTS and DIMENSIONS)
- Data Mart, Metadata
- OLAP VS OLTP
- Dimension & Fact
- Types of Dimension tables
- Types of Fact tables
- Star Schema
- Snowflake Schema
- Slowly Changing Dimensions -
  - SCD TYPE 1
  - SCD TYPE 2
  - SCD TYPE 3
- Top down and Bottom up approach
- Surrogate Keys
- Database vs Data Warehouse Data Mining

### **Chapter 2: Data warehouse Concepts**

- DDL, DML, DQL, TCL
- WHERE Clause - Character Strings and Dates, number
- General Comparison Conditions = > >= < <= <>

- Other Comparison BETWEEN , IN , LIKE , NULL
- Logical Conditions AND OR NOT
- ORDER BY Clause, Sorting by
- Column Alias , Column Position, Multiple Columns
- Explanation of Normalization and Demoralization

### Chapter 3: Single-Row Functions

- Character Functions: UPPER, LOWER, INITCAP, LENGTH, SUBSTR, INSTR, LPAD, RPAD, CONCAT,
- LTRIM, RTRIM, TRIM, REPLACE, TRANSLATE, REVERSE
- Number Functions: ROUND, TRUNC, MOD, POWER, CEIL, FLOOR, ABS
- Dates Functions: SYSDATE, MONTHS\_BETWEEN, NEXT\_DAY, LAST\_DAY, ADD\_MONTHS, ROUND, TRUNC, Arithmetic on Date
- Conversion Functions: Implicit Data-Type Conversion & Explicit Data-Type Conversion, TO\_CHAR, TO\_NUMBER , TO\_DATE
- General Functions: NVL , NVL2, NULLIF, COALESCE
- CASE Expression, DECODE
- Nested function with real-time usage

### Chapter 4: JOINS Queries

- EQUI JOIN / SIMPLE JOIN / NORMAL JOIN
- ANSI JOIN, LEFT OUTER, RIGHT OUTER, FULL OUTER
- INNER JOIN, JOIN ... USING clause, JOIN ... ON clause,
- CROSS JOIN, NON-EQUI JOIN,
- SELF JOIN ORACLE STANDARD OUTER JOINS.
- Multi table Joins, Complex Joins - How to simplified complex joins.

### Chapter 5: Group Functions Rules, SUM, MIN, MAX, COUNT, AVG

- Creating Groups of Data: GROUP BY Clause
- Filtering Group Results: The HAVING Clause

### Chapter 6: Sub-queries

- Single-Row Subqueries- Rules, Operators : = > >= < <= <>
- Null Values in a Subquery
- Multi-Row Subqueries- Rules, Operators : IN, ANY , ALL

## **Chapter 7: SET Operators**

- UNION ,
- UNION ALL ,
- INTERSECT ,
- MINUS

## **Chapter 8: Analytical Functions**

- Rank
- Dense\_Rank
- Rownumber
- Views, Materialized Views, Index

## **Chapter 9: Manual Testing**

- Rank
- Dense\_Rank
- Black Box Testing
- White Box Testing
- Unit Testing
- System Testing
- Integration Testing
- Acceptance Testing
- How to perform Manual Testing

## **Chapter 10: Testing Methodologies - Concepts**

- Waterfall model
- Agile Model

## **Chapter 11: Testing Tools**

- HP ALM
- Azure Devops(ADO)

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

- Test plan & Testing strategy in data warehousing
- Testing plan
- Test cases possibilities in Data warehousing
- Sample test cases for real time scenarios

### **Chapter 13: BI Report Testing- Concepts**

- How to generate the reports by using IBM Cognos.
- Test cases possibilities in BI Reports
- Sample test cases for real time scenarios

### **Chapter 14: Introduction to Informatica Power center**

- Explanation to Informatics architecture
- Explanation to various modules of informatics
- Introduction to creating mapping by using transformations
- Creating mapping using sources like Data base table and flat files
- How to monitor the workflows and look into sessions

### **Chapter 15: Learning UNIX commands**

- Basic commands to validate flat file in Unix env
- Writing Unix script to execute informatica workflow

### **Chapter 16: Introduction to IBM Cognos (BI Reporting)**

- How to create or develop the selfservice reports in Cognos
- How to analysis the SQL created by Cognos tool
- How to create the Report views is cognos and validation

### **Chapter 17: Industry Relevant Project**

- Real time Project explanation
- Interview question in all the ETL concepts from Testing

## **INCLUDING TRAINING:**

1. Resume Preparation
2. Interview Questions
3. Mock Interviews
4. One Bank Project
5. Placement Assistance