

#502, 5th Floor, Sree Swathi Anukar, Near Aditya Trade Center, Ameerpet - 500016, Hyderabad

#### **Data Warehousing Concepts**

- ➤ Data Warehousing Definition
- ➤ Basic Data Warehousing Architecture
- ➤ Transaction & Transactional Data
- > OLTP / Operational System / Transactional System
- OLAP / Data Warehouse / Decision Supporting System (DSS)
- Need of Data Warehouse
- ➤ Issues with OLTP Reporting
- Benefits with OLAP Reporting
- ➤ Benefits of Building a Data Warehouse
- ➤ Need of ETL Tools
- > Data Warehouse Definition By Ralph Kimball&Bill Inmon
- > Characteristics of Data Warehouse
  - ✓ Subject Oriented
  - ✓ Integrated
  - ✓ Time Variant
  - ✓ Non Volatile
- ➤ OLTP Vs. OLAP
- > Data Warehousing Architecture with Staging Area
- ➤ Staging Area
- ➤ Need of Staging Area
- > Data Warehousing Architecture with ODS
- Operational Data Store (ODS)
- ➤ Data Mart
- > Data Warehouse Design Approaches
  - ✓ Top Down Data Warehouse Design ApproachBy Bill Inmon
  - ✓ Bottom Up Data Warehouse Design Approach By Ralph Kimball
- ➤ Types of Data Marts
  - ✓ Dependent Data Marts W.ABTRAININGS.COM
  - ✓ Independent Data Marts
- $\succ$  ER Modeling
- ► Dimensional Modeling
- ➤ Dimension Table, Fact Table
- ➤ Dimension, Fact
- ≻ Star Schema
- ➤ Snowflake Schema
- > Fact Constellation Schema Or Galaxy Schema
- ➤ Benefits of Dimensional Modeling
- > Types of Dimensions and Dimension Tables



- Unchanged Dimension / Static Dimension  $\checkmark$
- **Slowly Changing Dimension**  $\checkmark$ 
  - SCD Type1 •
  - SCD Type2
- ✓ Rapidly Changing Dimension
- ✓ Degenerated Dimension
- ✓ Conformed Dimension
- ✓ Junk Dimension
- ✓ Role Playing Dimension
- ✓ Shrunken Dimension
- ✓ Inferred Dimensions
- ➤ Types of Facts
  - $\checkmark$  Additive Fact
  - ✓ Semi Additive Fact
  - ✓ Non Additive Fact
- ➤ Types of Fact Tables
  - ✓ Fact less Fact Table
  - ✓ Detailed Fact Table
  - ✓ Additive Fact Table or Cumulative Fact Table
- $\succ$  Granularity
- ➤ Surrogate Key
- Primary Key Vs. Surrogate Key
- ➤ What is ETL
- ≻ Code Based ETL
- ➢ GUI Based ETL □
- > Data Acquisition
- ➤ Data Extraction
- > Data Transformation
- ➤ Data Loadings=

  - √ Initial Load 7799771213 ✓ Incremental Load

# Informatica PowerCenter Architecture

- ≻ Domain ➤ Administration Console
- ➤ Domain Metadata
- ➤ Repository
- PowerCenter Server Components
  - ✓ Repository Service
  - ✓ Integration Service
- ➤ PowerCenter Client Tools
  - ✓ Repository Manager
  - ✓ Designer



- ✓ Workflow Manager
- ✓ Workflow Monitor
- ➤ Repository Manager
- ➤ Designer Tools
  - ✓ Source Analyzer
  - ✓ Target Designer
  - ✓ Transformation Developer
  - ✓ Mapplet Designer
  - ✓ Mapping Designer
- ➤ Workflow Manager Tools
  - ✓ Task Developer
  - $\checkmark$  Worklet Designer
  - ✓ Workflow Designer
- > Workflow Monitor
- ▶ Requirements to Implement ETL process
- Execution Process

# **PowerCenter Transformations**

- > Transformation, Types of Transformations, Views of Transformations
- ➤ Types of ports and Ports Execution Order
- ➤ Filter Transformation
- Router Transformation
- ► Expression Transformation
- ➤ Union Transformation
- ➤ Sorter Transformation
- Rank Transformation
- Joiner Transformation 7799771213
- > Aggregator Transformation, Incremental Aggregation
- Source Qualifier Transformation
- Sequence Generator Transformation
- ➤ Update Strategy Transformation
- Lookup Transformation, Types of Lookup Caches
- ➤ Stored Procedure Transformation
- ➤ Normalizer Transformation
- ➤ Transaction Control Transformation

# **Advanced Concepts**

► Flat files



- ➤ Flat file types / Flat file formats
  - ✓ Fixed Width
  - ✓ Delimited
- Fixed Width and Delimited File processing in Informatica
- > Direct and Indirect Flat File Loading (Source File Type)
- ➤ Mapping Parameters
- ➤ Mapping Variables
- ➤ Session Parameters
- ➤ SCD Type1
- ➤ SCD Type2
- ➤ MD5 Function
- Reusable Transformation
- ≻ Mapplet
- > Target Load Plan / Target Load Order
- > Constraint Based Loading /Constraint Based Load Ordering
- ≻ Worklet
- Types of Batch Processing
- ➤ Link Condition
- Version Control
- ➤ Task and Types of Tasks
- Scheduling Workflow
- PMCMD Utility
- ➤ PMREP Utility
- ➤ Session Recovery
- ➤ User Defined Functions
- ≻ Shortcut, Copy
- ➢ Normal and Bulk Loading
- ≻ Debugger
- > Performance Tuning WWW.ABTRAININGS.COM
- Session Partitioning
- ➤ Push Down Optimization
- ➤ Unit Testing
- > Code Migration through Exporting and Importing
- > Code Migration by Copy from Folder
- > Data Warehousing Projects Life Cycle
- > How Informatica Tool Implemented in Data Warehousing Projects

# Add-on



- ► Interview Questions Discussion
- ► Resume Preparation
- ➤ Mock Interviews By Real Time Experts

#### **Pre-requisites**

Knowledge of SQL and basic UNIX

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