

Course Content of Data Integration and ETL with Oracle Warehouse Builder: Part 1:

Installing and Setting Up the Warehouse Builder Environment

- What Is Oracle Warehouse Builder?
- Basic Process Flow of Design and Deployment
- Oracle Warehouse Builder Licensing and Connectivity Options
- Installing Oracle Warehouse Builder 11.2
- OWBSYS Schema
- Using OWB 11.2 with Database 10g R2
- Using the Repository Assistant to Manage Workspaces
- Supported operating systems (OS), sources, targets, and optional components

Getting Started with Warehouse Builder

- Logging In to OWB Design Center
- Overview of the Design Center
- OWB Projects
- Overview of Objects within a Project
- Overview of Objects within an Oracle Module
- Organizing Metadata Using Foldering
- Locations Navigator and Globals Navigator panels
- Setting Projects Preferences: Recent Logons

Understanding the Warehouse Builder Architecture

- Warehouse Builder Development Cycle
- Overview of the Architecture for Design, Deployment, Execution
- Overview of Configurations, Control Centers, and Locations
- Creating Target Schemas
- Registering DB User as an OWB User
- Roles and Privileges of Warehouse Builder Users
- Registering an Oracle Workflow User

Defining Source Metadata

- Data warehouse implementation: Typical steps
- Difference Between Obtaining Relational and Flat File Source Metadata
- Creating Flat File Module
- Sampling Simple Delimited File
- Sampling Multi-record Flat File
- Creating an Oracle Module
- Selecting the Tables for Import

Defining ETL Mappings for Staging Data

- Purpose of a Staging Area
- Define OWB Mappings
- Mapping Editor Interface: Grouping, Ungrouping, and Spotighting
- Creating External Tables
- Create and Bind process
- Levels of Synchronizing Changes
- Using the Automapper in the Mapping Editor
- Set loading type and target load ordering

Using the Data Transformation Operators

- Component Palette
- Using a Joiner
- Lookup Operator: Handling Multiple Match Rows
- Using the Subquery Filter Operator
- Using the Set, Sequence, and Splitter Operators
- Pivot and Unpivot Operators
- Using the Aggregator, Constant, Transformation, and Pre/Post Mapping Operators
- Deploying and Executing in Projects Navigator Panel

Cleansing and Match-Merging Name and Address Data

- Integrating Data Quality into ETL
- Name and Address Data Cleansing
- Name and Address Server
- Name and Address Software Providers

- Settings in the Name and Address Operator
- Reviewing a Name and Address Mapping
- Consolidating Data Using the Match Merge Operator
- Using the Match Merge Operator in a Mapping

Using Process Flows

- Process Flow Concepts
- Creating a Process Flow Module, a Process Flow Package and a Process Flow
- Types of Activities: Fork, And, Mapping, End Activity
- Creating Transitions Between Activities
- Some More Activities: Manual, SQLPLUS, Email
- Generating the Process Flow Package

Deploying and Reporting on ETL Jobs

- Logical Versus Physical Implementation
- Setting Object Configuration
- Deployment Concepts
- Invoking the Control Center Manager
- Deploy Options and Preferences
- Repository Browser
- Starting OWB Browser Listener and the Repository Browser
- Browsing Design Center and Control Center Reports

Using the Mapping Debugger

- Overview of the Mapping Debugger
- Initializing a Mapping Debugging Session
- Preparing the testing environment and test data
- Setting breakpoints and watch points
- Evaluating the flow of data to detect mapping errors

Enhancing ETL Performance

- Performance Tuning at Various Levels
- Performance-Related Parameters in ETL Design
- Configuring Mappings for Operating Modes, DML Error Logging, Commit Control, and Default Audit Levels

- Enabling Partition Exchange Loading (PEL) for Targets
- Performance-Related Parameters in Schema Design
- Configuring Indexes, Partitions, Constraints
- Enabling Parallelism and Parallel DML
- Setting Tablespace Properties and Gathering Schema Statistics

Managing Backups, Development Changes, and Security

- Overview of Metadata Loader Utilities (MDL)
- Managing Metadata Changes by Using Snapshots
- Using Change Manager
- Version Management of Design Objects
- Graphical UI for Security Management
- Object-Level Security
- Setting Security Parameters

Integrating with Oracle Business Intelligence Enterprise Edition (OBI EE)

- Business Justification: Tools Integration
- Integrating with OBI EE and OBI SE
- Transferring BI Metadata to OBI EE Server
- Setting Up the UDML File Location
- Deriving the BI Metadata (OBI EE)
- Deploying the BI Module
- Converting the UDML File for OBI EE
- Oracle BI Admin and Answers Tool

Appendix B: Creating Experts

- Harnessing OWB Power and Complexity for New Users
- OWB "Experts" : Directed Guidance and Knowledge Management
- Creating an Expert
- Starting an Expert
- Creating Your Own Custom Dialog
- Scenario: ROLAP to MOLAP in Five Easy Steps
- Scenario: Expert for Creating External Table

Appendix C: Using Diagnosis and Debugging Techniques

- Collecting Information Before Contacting Oracle Support
- Sequence Used by Oracle Support Representatives to Process Calls
- Activating Debugging and Logging for Full Java Debug Trace
- Activating Tracing
- Using the Service_Doctor.sql Script
- Troubleshooting and Diagnosing Errors in Control Center Agent (CCA)
- Run-Time Views and Utilities
- Online Warehouse Builder Resources