

- COURSE CODE:** OWHOWB
- COURSE TITLE:** Oracle Warehouse Builder (OWB) Implementation & Use
- CURRENCY:** 11g
- LEVEL:** Basic to intermediate
- AUDIENCE:** DBAs, developers and data architects
- PREREQUISITES:** Conversant with dimensional modelling and Oracle 9i, 10g and/or 11g database architecture and facilities
- DURATION:** 4 days
- SUMMARY:** Though ETL centric, this course details all the most practical functions, facilities and components as these relate to OWB as a data integration tool, including:
- OWB implementation planning
 - Data sourcing
 - Extracting, transforming and loading (ETL)
 - Process flow
 - Data profiling
 - Deployment
 - Data mapping
 - Experts to automate OWB tasks
 - Best practices and performance
 - Etc.
- OBJECTIVES:** Upon completion of this course, the delegate should be competent to use OWB as a tool to satisfy a variety of data integration and ETL solutions.

1. ORACLE WAREHOUSE BUILDER (OWB) ARCHITECTURE

- Design Center
- OWB Repository
- Repository Browser
- Control Center Manager
- Target Schema
- Workspaces

2. OWB INITIAL IMPLEMENTATION STEPS

- Prepare OWB Design Center
- Identify source metadata
- Profile data to assess data quality
- Design target schema
- Design ETL solution
- Develop a plan in deployment and data integration

3. DATA PROFILING (i.e., DATA QUALITY ASSESSMENT)

- Purpose
- Data correction and enrichment
- Data rules
- Data auditors
- Implementing data profiling
- Tuning data profiling

4. MATCH/MERGE (i.e., DEDUPLICATION, etc.)

- Purpose
- Description
- Match rules
- Match/merge operators
- Target table mapping
- Match/merge mapping
- Mapping execution

5. EXTRACTING, TRANSFORMING AND LOADING (ETL)

- ETL mapping
- Process flows
- Process Flow Editor
- Process flow activities
- Activity templates
- Expressions
- Predefined transformations
- Custom transformations
- Transformation libraries

6. DEVELOPING TARGET SCHEMAS

- Data objects
- Data Object Editor
- Dimensional objects (e.g., wizards)
- Slowly changing dimensions (SCD)
- Time dimension
- Cubes
- Deploying time dimension

7. ETL PERFORMANCE & BEST PRACTICES

- PL/SQL mapping
- SQL*Loader mapping
- Partition exchange loading

8. FLAT FILE CONSIDERATIONS

- Mapping
- Master-detail records
- Flat file source module
- Flat file metadata
- Import Metadata Wizard

9. DEFINE A DIMENSIONAL MODEL (DW) VIA OWB

- Defining target DW module
- Use of Oracle's external table
- How to design dimensions
- How to design a cube

10. DEPLOYMENT OF OWB OBJECTS

- Definition and scope
- Execution process
- Scheduling ETL
- Configurations
- Cube and dimensions
- Mapping
- Process flow

11. ORACLE OLAP CONCEPTS & TECHNOLOGY

- Benefits of using OLAP
- Key advantages of Oracle OLAP
- Main features of a dimensional model
- Role of an analytic workspace in the Oracle database

12. OWB OLAP MODELLING & DEPLOYMENT

- Use additional dimension-modelling capabilities – Value-based, ragged-level, skip-level hierarchies
- Design multi-dimensional modelling

13. MANAGING OWB LIFE-CYCLE CHANGES

- Use OWB Change Manager to take 'snapshot' versions of metadata, etc.
- Use Metadata Dependency Manager to perform impact and lineage analysis

14. OWB TUNING CONSIDERATIONS

- Advanced queries
- External tables vs. SQL*Loader
- Merge statements
- Multi-table inserts
- Full table scan
- Partitioning
- Auto statistics
- Materialized Views – partition aware refresh
- Partition outer joins
- Mapping operating nodes
- Commit frequency
- Constraint management
- Index management
- Parallelism
- Table functions
- Custom transformation costs
- PL/SQL result caching