

Oracle BI Applications 7.9: Develop a Data Warehouse

Duration: 5 Days

What you will learn

This course is designed for those individuals on the implementation team who are responsible for extracting, transforming, and loading data (ETL) from Siebel Customer Relationship Management (CRM) and other data sources, including Oracle eBusiness Suite, into the Oracle Business Analytics Warehouse (OBAW). This course teaches students about the architecture and contents of the OBAW and the use of the Data Warehouse Administration Console (DAC) in designing, performing, and managing ETL. Students learn about the different methods used to modify the Oracle Business Analytics Warehouse to support specific analytical application requirements, as well as how to weigh performance issues related to the various modifications. Practices are based on Siebel Customer Relationship Management (CRM) data.

Learn To:

Install and configure the Oracle Business Analytics Warehouse

Install and use the Informatica Designer

Describe and Build Source Dependent Extract and Source Independent Load mappings

Use the Data Warehouse Administration Console to build, load and configure the Oracle Business Analytics Warehouse

Describe and use the Change Capture Process

Manage Performance

Audience

Business Intelligence Developer

Data Warehouse Administrator

Data Warehouse Developer

Database Administrators

Technical Consultant

Prerequisites

Required Prerequisites

Oracle BI 10g: Analytics Overview - RWC

Suggested Prerequisites

Ability to navigate within transactional applications

Understanding of underlying architecture of transactional ap

Working knowledge of Informatica PowerMart or PowerCenter

Domain experience in Business Intelligence, data warehouse

Course Objectives

Install the Oracle Business Analytics Warehouse (OBAW)

Configure the Oracle Business Analytics Warehouse

Install Informatica PowerCenter

- Use the Informatica Designer to configure the OBAW components
- Describe ETL for OBAW
- Examine Source Dependent Extract (SDE) mappings
- Examine Source Independent Load (SIL) ETL mappings
- Customize the OBAW
- Customize the OBAW using ERP data
- Customize the OBAW using CRM data
- Customize the OBAW Using the Universal Adaptor
- Explore the Change Data Capture Process
- Build Auxiliary Change Capture
- Build Slowly Changing Dimensions
- Capture and Apply Deletes in the CRM Transactional Database
- Manage OBAW Performance

Course Topics

Oracle Business Intelligence Application Overview

- Describing the Oracle Business Intelligence Applications
- Describing Oracle Business Intelligence Applications components
- Describing analytic workflows and application integration

Oracle Business Intelligence Applications Architecture Overview

- Describing the Oracle Business Intelligence logical architecture
- Describing the process flow of building the data warehouse
- Employing the recommended deployment options to maximize data warehouse performance
- Listing the components supporting the Oracle Business Analytics Warehouse and the functions performed by each core component

Oracle Business Analytics Warehouse Content

- Describing the contents of the Oracle Business Analytics Warehouse
- Describing the warehouse tables

Installing Oracle Business Analytics Warehouse Components

- Installing the components on each machine in an Oracle Business Analytics Warehouse implementation
- Detailing the required steps for each installation
- Explaining the use of components on each machine
- Identifying steps to grant access to Oracle Business Analytics Warehouse from Oracle Business Intelligence applications

Understanding the ETL Process

- Understanding the Extraction, Transformation, and Loading (ETL) process used to load Oracle Business Analytics Warehouse
- Describing the full and incremental load of the OBAW
- Identifying the tables, tasks, and mappings used to support ETL processing

Working with Informatica Designer

- Identifying the Informatica Repository objects used to configure the OBAW
- Navigating the set of tools in the Informatica Designer used to configure the OBAW
- Describing the process for building Oracle mappings using Informatica Designer

Exploring SDE and SIL Mappings

- Defining extract and load workflows
- Describing the difference between Source Dependent Extract (SDE) and Source Independent Load (SIL) sessions
- Identifying transformations and their mechanics in Source Dependent Extract and Source Independent Load mappings

Exploring out-of-the-box mapplets and reusable transformations
Explaining the differences between SIL dimension and fact mappings

Building SDE and SIL Mappings

Describing the process of building mappings using Informatica Designer
Creating mapping sources and targets
Copying, modifying, and validating mappings

Working with Informatica Workflow Manager

Navigating Informatica Workflow Manager
Running workflows and sessions using Informatica Workflow Manager
Describing the steps for creating, running, and troubleshooting workflows and sessions

Working with Data Warehouse Administration Console

Using the tools and views of the Data Warehouse Administration Console (DAC)
Describing DAC objects, how they relate to each other, and their roles in the OBAW ETL
Examining the internal DAC tasks
Creating custom execution plans and subject areas in DAC
Generating custom DDL using DAC Schema Manager

Populating Oracle Business Analytics Warehouse

Exploring prebuilt ETL execution plans
Running and viewing exception reports using DAC
Examining exception types
Loading the OBAW using DAC
Troubleshooting the load process

Configuring Oracle Business Analytics Warehouse

Reviewing configuration types
Identifying the performance benefits of ETL configuration: Research and Analysis using DAC
Configuring ETL to increase performance
Examining the impact on Auto Dependency Engine analysis

Customizing Oracle Business Analytics Warehouse

Examining customization types and scenarios
Examining customization considerations
Examining customization leading practices and requirements

Adding Columns to an Existing Dimension Table

Describing the steps in a Type I customization of the Oracle Business Analytics Warehouse
Modifying custom mapping templates to perform a Type I customization
Creating workflows and sessions for a Type I customization
Creating DAC tasks and assigning source and target tables
Generating task dependencies
Running a custom execution plan to add data to an existing table in OBAW
Validating results

Adding a New Dimension in OBAW

Describing the steps and examples of a Type II customization of the Oracle Business Analytics Warehouse, bringing in c
Adding a new table to the OBAW and creating required foreign keys
Registering new tables in the DAC
Creating and running mappings and sessions for a Type II customization

Exploring the Change Capture Process

- Describing the change capture process
- Describing and generating change capture tables
- Describing and generating change capture views
- Describing and generating change capture SQL
- Using the change capture filter

Capturing and Applying Deletes

- Identifying business scenarios where records are deleted in the transactional database creating the need to capture the c
- Generating delete triggers
- Executing delete triggers
- Building mappings to capture and extract deletes from the transactional database
- Building mappings to apply deletes to the OBAW
- Building sessions and workflows to apply the deletes to the OBAW
- Configuring the DAC to load the deleted rows onto the OBAW
- Loading the deleted rows onto the OBAW

Building Auxiliary Change Capture

- Describing auxiliary change capture
- Identifying the business need to perform auxiliary change capture
- Building the image table for auxiliary tables
- Creating auxiliary change capture mapping
- Creating sessions and workflows for auxiliary change capture process
- Configuring the DAC to perform the auxiliary change capture process
- Defining dependencies, building the image flag, and describing auxiliary source tables
- Running ETL and validating results

Managing OBAW Performance

- Reviewing performance trade-offs
- Reviewing common performance bottlenecks
- Explaining Informatica Server throughput
- Reviewing ETL parallel processing guidelines
- Reviewing recommended Informatica Server parameter settings
- Reviewing database server throughput and indexes
- Managing optimizer statistics
- Managing OBAW schema objects