

Oracle BI 12c: Build Repositories Ed 1

Duration: 5 Days

Course Description:

This Oracle BI 12c: Build Repositories training teaches you how to build and verify the three layers of an Oracle Business Intelligence (BI) repository, step-by-step.

Course Objectives:

- Model partitions and fragments to improve application performance and usability
- Use variables to streamline administrative tasks and modify metadata content dynamically
- Use time series functions to support historical time comparison analyses
- Set up security to authenticate users and assign appropriate permissions and privileges
- Apply cache management techniques to maintain and enhance query performance
- Set up query logging for testing and Debugging
- Set up a multiuser development environment
- Use the Administration Tool wizards and utilities to manage, maintain, and enhance repositories
- Enable usage tracking to track queries and database usage, and improve query performance
- Perform a patch merge in a development-to-production scenario
- Use Business Application Archive (BAR) files to move Oracle BI between environments
- Build the Physical, Business Model and Mapping, and Presentation layers of a repository
- Build and run analyses to test and validate a repository
- Build simple and calculated measures for a fact table
- Create logical dimension hierarchies and level-based measures
- Check the model and then model aggregate tables to speed query processing

Audience

- Administrator
- Analyst
- Architect
- Developer
- Implementer

Course Outlines:

Repository Basics

- Exploring Oracle BI architecture components
- > Exploring a repository's structure, features, and functions
- Using the Oracle BI Administration Tool
- Creating a repository
- Loading a repository into Oracle BI Server
- > Installing the BI Client software

Building the Physical Layer of a Repository

- > Importing data sources
- Setting up Connection Pool properties
- Defining keys and joins
- Examining physical layer object properties
- Creating alias tables
- Printing the physical layer diagram

Building the Business Model and Mapping Layer of a Repository

- Building a business model
- Building logical tables, columns, and sources
- Defining logical joins
- Building measures
- > Examining business model object properties
- > Printing the business model and mapping layer diagram

Building the Presentation Layer of a Repository

- Exploring presentation layer objects
- Creating presentation layer objects
- Modifying presentation layer objects
- > Examining presentation layer object properties
- Nesting presentation tables
- > Controlling presentation layer object visibility

Testing and Validating a Repository

- Checking repository consistency
- Turning on logging
- Uploading the repository through Enterprise Manager
- Executing analyses to test the repository
- Inspecting the query log

Managing Logical Table Sources

- Adding multiple logical table sources to a logical table
- Specifying logical content

Adding Calculations to a Fact

- Creating new calculation measures based on logical columns
- Creating new calculation measures based on physical columns
- Creating new calculation measures using the Calculation Wizard
- Creating measures using functions

Working with Logical Dimensions

- Creating logical dimension hierarchies
- Creating level-based measures
- Creating share measures
- > Creating dimension-specific aggregation rules
- Creating presentation hierarchies
- > Creating parent-child hierarchies
- Creating ragged and skipped-level hierarchies

COURSE OUTLINE



Enabling Usage Tracking

- Creating the usage tracking tables
- Setting up the sample usage tracking repository
- Tracking and storing Oracle BI Server usage at the detailed query level
- Using usage tracking statistics to optimize query performance and aggregation strategies

Using Model Checker and Aggregates

- Using Model Check Manager
- Modeling aggregate tables to improve query performance
- Using the Aggregate Persistence Wizard
- > Testing aggregate navigation
- Setting the number of elements in a hierarchy

Using Partitions and Fragments

- Exploring partition types
- Modeling partitions in an Oracle BI repository

Using Repository Variables

- Creating session variables
- Creating repository variables
- Creating initialization blocks
- Using the Variable Manager
- Using dynamic repository variables as filters

Modeling Time Series Data

- > Using time comparisons in business analysis
- Using Oracle BI time series functions to model time series data

Modeling Many-to-Many Relationships

Using bridge tables to resolve many-to-many relationships between dimension tables and fact tables

Setting an Implicit Fact Column

- Ensuring the correct results for dimension-only queries
- Selecting a predetermined fact table source
- Specifying a default join path between dimension tables

Importing Metadata from Multidimensional Data Sources

- Importing a multidimensional data source into a repository
- Incorporating horizontal federation into a business model
- Incorporating vertical federation into a business model
- Adding Essbase measures to a relational model
- Displaying data from multidimensional sources in Oracle BI analyses and dashboards

Security

- > Exploring Oracle BI default security settings
- Creating users and groups
- Creating application roles
- > Setting up object permissions
- Setting row-level security (data filters)
- Setting guery limits and timing restrictions

Cache Management

- Restricting tables as non-cacheable
- Using Cache Manager
- Inspecting cache reports
- Purging cache entries
- Modifying cache parameters and options
- Seeding the cache

Managing Metadata and Working with Service Instances

- Using BI Application Archive (BAR) files to export and import service instances
- Managing BAR files using WebLogic Scripting Tool (WLST) commands
- Managing service instances using WLST commands

Using Administration Tool Utilities

- Using the various Administration Tool utilities
- Using BI Server XML API to create XML representation of repository metadata

Multiuser Development

- > Setting up a multiuser development environment
- Developing a repository using multiple developers
- Tracking development project history

Performing a Patch Merge

- Comparing repositories
- Equalizing objects
- Creating a patch
- > Applying a patch
- Making merge decisions