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Learning Style: Virtual Classroom

Technology: Oracle

Difficulty: Intermediate

Course Duration: 5 Days

## Oracle BI 12c: Build Repositories (OR-12c-BR)



## About this course:

This Oracle BI 12c: Build Repositories course is designed to enable the candidates to develop and validate the 3 layers of an Oracle BI repository. The professional trainers of Oracle University will teach you the techniques and methods to use the Oracle Business Intelligence Administration Tool to develop a simple repository.

### Learn To:

- How to design and develop logical business models.
- How to build the repository.
- Develop logical and physical joins, calculation measures, and simple measures.
- Utilize the query log to validate query results.
- Administrate the Oracle Business Intelligence Server cache.
- Import schemas.
- Show business models to users in the Oracle Business Intelligence user interface.
- Establish multiple user development environments.
- Create and run analyses by validating your work.
- Deployment of Oracle Business Intelligence Server security.

### Benefits to You

By appearing in this course you will get the knowledge and understanding of initial repository too complex business model requirements, like: multiple logical table sources, logical dimension hierarchies, time-series data, partitions, and aggregate tables. This course also helps you to enhance your expertise and ability to use Administration Tool wizards and utilities to enhance, maintain, and manage repositories. Additionally, you will also learn to more advanced topics, including patch merge, bridge tables, implicit fact columns, managing service instances, and usage tracking.

### Course Objective:

- Establish security to verify users and allocate appropriate privileges and permissions
- Establish multiple user development environments
- Model fragments and partitions to enhance application usability and performance
- Allow usage tracking to monitor database usage and queries and enhance query

efficiency

- Utilize variables to modify metadata content dynamically and streamline administrative tasks
- Execute a patch merge in development to a production scenario
- Assist historical time comparison analyses by utilizing time series functions
- Develop and run analyses to validate and test a repository
- Build level-based measures and logical dimension hierarchies
- Enhance and maintain query performance by applying cache management techniques
- Use BAR files to shift Oracle BI between environments
- Establish query logging for debugging and testing
- Develop calculated and simple measures for a fact table
- Enhance, manage, control, and maintain repositories by using the Administration Tool wizards and utilities
- Review the model and aggregate tables increase the speed of query processing
- Develop the Presentation layers of a repository, and Business Model and Mapping

### **Audience:**

- Application Developers
- BI Developer
- Data Warehouse Administrator and Developer
- Data Modelers
- Technical Consultant
- Business Analysts
- Reports Developer

### **Prerequisite:**

- This course required no prerequisites to appear in this course.

## Course Outline:

### Repository Basics

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

### Building the Physical Layer of a Repository

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

### Building the Business Model and Mapping Layer of a Repository

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

### Building the Presentation Layer of a Repository

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

### Testing and Validating a Repository

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

### Managing Logical Table Sources

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

## **Adding Calculations to a Fact**

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

## **Working with Logical Dimensions**

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

## **Enabling Usage Tracking**

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

## **Using Model Checker and Aggregates**

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

## **Using Partitions and Fragments**

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

## **Using Repository Variables**

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

## **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**

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

## **Security**

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

## **Cache Management**

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

## **Managing Metadata and Working with Service Instances**

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

## **Using Administration Tool Utilities**

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

## **Multuser Development**

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

## **Performing a Patch Merge**

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