

Oracle BI 11g R1: Build Repositories

Duration: 5 Days

What you will learn

This Oracle BI 11g R1: Build Repositories training is based on OBI EE release 11.1.1.7. Expert Oracle University instructors will teach you step-by-step procedures for building and verifying the three layers of an Oracle BI repository; you'll begin by using the Oracle BI Administration Tool to construct a simple repository to address a fictitious company's business requirements.

Learn to:

Build and execute analyses to test and verify a dimensional business model.

Use the Oracle BI Administration Tool to administer Oracle BI Server.

Use the Oracle BI Administration Tool to build, manage and maintain an Oracle BI repository.

Build a dimensional business model to address business intelligence requirements.

Validate your work by creating and running analyses, and verifying query results using the query log.

Benefits to You

By taking this course, you'll walk away with the ability to transform your organization's data into intelligence, which will improve your day-to-day decision making. This new knowledge will help you provide time-critical, relevant and accurate insights. Furthermore, you'll develop skills that will help you become more efficient at building repositories.

Build Logical Business Models

This course will also teach you how to import schemas, design and build logical business models and expose business models to users in the Oracle BI user interface. While constructing the repository, you'll learn how to build physical and logical joins, simple measures and calculation measures.

Model Logical Dimension Hierarchies

You'll then extend the initial repository and learn how to model more complex business requirements. This includes logical dimension hierarchies, multiple logical table sources, aggregate tables, partitions and time series data.

Implement Oracle BI Server Security

Oracle University instructors will also walk you through implementing the Oracle BI Server security and managing the Oracle BI Server cache. You'll learn how to set up a multi-user development environment and use Administration Tool wizards and utilities to manage, maintain and enhance repositories.

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Advanced Course Topics

Finally, investing in this course will give you a chance to explore more advanced topics, like implicit fact columns, bridge tables, usage tracking, multilingual environments, write back and patch merge. An appendix is included, which covers architecture and the benefits of the Oracle Exalytics BI Machine.

Audience

Application Developers
Business Analysts
Business Intelligence Developer
Data Modelers
Data Warehouse Administrator
Data Warehouse Analyst
Reports Developer
Technical Consultant

Related Training

Required Prerequisites

Knowledge on Basic SQL
Knowledge on Data warehouse design
Knowledge on Dimensional modeling

Suggested Prerequisites

Oracle BI 11g R1: Create Analyses and Dashboards

Course Objectives

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
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
Build the Physical, Business Model and Mapping, and Presentation layers of a repository

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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

Describe Exalytics machine and the Summary Advisor tool used in the machine

Course Topics

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

Overview of Exalytics Machine

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

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 query 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

Exploring the Summary Advisor Tool

Setting up Summary Advisor
Running the Summary Advisor wizard to create the aggregate script
Running the aggregate script to create the aggregates

Using Administration Tool Utilities

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

Multiusers 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