

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.

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.

Live Virtual Class Format

A Live Virtual Class (LVC) is exclusively for registered students; unregistered individuals may not view an LVC at any time. Registered students must view the class from the country listed in the registration form. Unauthorized recording, copying, or transmission of LVC content may not be made.

Audience

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

Related Training

Suggested Prerequisites

Basic SQL

Data warehouse design

Database design

Dimensional modeling

Oracle BI 11g R1: Create Analyses and Dashboards

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Course Objectives

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

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

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

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 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

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 memory

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

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

Building the Presentation Layer of a Repository

Exploring Presentation layer objects

Creating Presentation layer objects

Modifying Presentation layer objects

Examining Presentation layer object properties

Testing and Validating a Repository

Checking repository consistency

Turning on logging

- Defining a repository in the initialization file
- Executing analyses to test a 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 existing 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
- Using calculated members

Using Aggregates

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

Using Partitions and Fragments

- Exploring partition types
- Modeling partitions in an Oracle BI repository
- Using the Calculation Wizard to create derived measures

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

- Adding fact columns automatically to dimension-only queries
- Ensuring the expected 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

Enabling Usage Tracking

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

Analyzing usage results using Oracle BI Answers and other reporting tools

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