Oracle BI 11g R1: Build Repositories

Duration: 5 Days

What you will learn

This Oracle BI 11g R1: Build Repositories training teaches you step-by-step procedures to build and verify 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 Adminstration 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

Transform your organization’s data into intelligence for improved decision making. Provide time-critical, relevant and accurate insights. Become more efficient at building repositories.

Build Logical Business Models

This course will 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.

Logical Dimension Hierarchies

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

Oracle BI Server Security

This course will teach you how to implement Oracle BI Server security and manage the Oracle BI Server cache. 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

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Finally, 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
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

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

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Set up a multiuser development environment

Use Administration Tool wizards and utilities to manage, maintain, and enchance 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

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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

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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

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