ORACLE UNIVERSITY

Oracle BI Suite EE 10g R3: Build Repositories - LWC New

Süre: 5 Days

What you will learn

This course provides step-by-step procedures for building and verifying the three layers of an Oracle BI repository. Students begin by using the Oracle BI Server Administration Tool to construct a simple repository to address a fictitious company's business requirements. Students import schemas, design and build logical business models, and expose business models to users in Oracle BI Answers. In the process of constructing the repository, students learn how to build physical and logical joins, simple measures, and calculation measures. Students also learn how to validate their work by building queries and verifying query results using Oracle BI Answers and the query log.

Students then extend the initial repository and learn how to model more complex business requirements, such as dimension hierarchies, multiple logical table sources, aggregate tables, partitions, and time series data. Students also learn how to implement OracleBI Server security, manage OracleBI Server cache, set up a multi-user development environment, and use Administration Tool wizards and utilities to manage, maintain, and enhance repositories. Finally, students are exposed to more advanced topics, such as implicit fact columns, bridge and helper tables, usage tracking, optimizing query performance, and multilingual environments.

Learn To:

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
Use Oracle BI Answers to build and execute queries to test and verify a dimensional business model
Use the Oracle BI Administration Tool to administer Oracle BI Server

Live Virtual Class (LVC) Access Policy:

You are prohibited from allowing other unregistered individuals to view your LVC Event
You may not make unauthorized recordings, copies or transmissions of LVC Event content
You must view the LVC Event from the country listed in your LVC Event registration

Students attending LVC events should enroll at least two working days in advance of the event to ensure adequate time to download student materials and confirm their system setup. To learn more about the system and setup requirements for participating in a Live Virtual Class, please click here.

Audience

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

Data Warehouse Analyst
Data Warehouse Developer
Reports Developer

Prerequisites

Required Prerequisites
Dimensional modeling

Basic SQL

Data warehouse design

Database design

Suggested Prerequisites
Oracle BI 10g: Analytics Overview - Online Course
Oracle BI Suite EE 10g R3: Create Reports and Dashboards New

Course Objectives

Use time series functions to support historical time comparison analyses
Build the Physical, Business Model and Mapping, and Presentation layers of a repository
Use Oracle BI Answers to run queries to test and validate a repository
Build simple and calculated measures for a fact table
Create 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
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 multi-user 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
Connect third-party reporting tools to Oracle BI Server
Configure Oracle BI to support multilingual environments

Course Topics

Repository Basics
Oracle BI architecture components
Repository structure, features, and functions
Using the OracleBI 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 and select 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
Testing a repository using Oracle BI Answers
Inspecting the query log

Adding Multiple Logical Table Sources
Adding multiple logical table sources to a logical table
Specifying logical content

Adding Calculations to a Fact Table
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 Dimension Hierarchies and Level-Based Measures
Creating dimension hierarchies
Creating level-based measures
Creating share measures
Creating rank measures

Using Aggregates
Purpose of aggregate tables in dimensional modeling
Modeling aggregate tables to improve query performance
Testing aggregate navigation
Using the Aggregate Persistence Wizard

Using Partitions and Fragments
Purpose for segmenting data into partitions and fragments
Partition types
Modeling partitions in an Oracle BI repository

Using Repository Variables
Session variables
Repository variables
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
Using helper tables to model many-to-many relationships for team-based hierarchies in a dimension

Configuring Oracle Business Intelligence data and metadata to support multilingual environments

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

Integrating Third-Party Reporting Tools with Oracle BI Server

Creating Repositories Using Multidimensional Data Sources
Adding a multidimensional data source an Oracle BI repository
Displaying data from multidimensional sources in Oracle BI Answers requests and Oracle BI Interactive Dashboards

Security
Creating users and groups
Setting permissions for users and groups
Authenticating using a external database
Authenticating using database authentication
Setting query limits and timing restrictions
Setting filters to personalize information

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

Setting Up and Administering Usage Tracking
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

Multi-user Development
Setting up a multi-user development environment
Developing a repository using multiple developers
Tracking development project history

Using Administration Tool wizards and utilities to manage, maintain, and enhance repositories

Employing techniques to optimize Oracle BI query performance
Applying Oracle BI repository design principles