

Oracle Database 11g: OLAP Essentials

Duration: 3 Days

What you will learn

In this course, students learn to progressively build an OLAP data model to support a wide range of business intelligence requirements. Students learn to design OLAP cubes to serve as a summary management resource for existing SQL table queries. Students also learn to leverage the power of Oracle OLAP by adding rich analytic content to your data model.

Students learn to create sophisticated reports of OLAP data by using simple SQL queries. Students also create and execute OLAP queries in SQL Developer, and Oracle Application Express (APEX). Students learn to implement cube security, including how to authorize access to cube data and methods for scoping user views of data. Finally, students learn to design OLAP cubes for performance and scalability.

Learn To:

- Design and create an Oracle OLAP data model
- Enable query rewrite to OLAP Cube MVs for relational summary management
- Easily create OLAP calculations that enrich the analytic content of your data model
- Query OLAP data using simple SQL
- Implement cube security
- Efficiently design cubes for performance and scalability

Related Training

Required Prerequisites

- Basic SQL knowledge
- A basic understanding of OLAP concepts

Course Objectives

- Describe OLAP concepts and terminology
- Examine the role of Oracle OLAP within the Oracle BI / DW Platform

Design and create OLAP Cubes

Enable query rewrite to OLAP Cube MVs for summary management

Create OLAP calculated measures

Query stored and calculated OLAP data with simple SQL

Use ad hoc query and reporting tools against OLAP data

Implement cube security

Efficiently design cubes for performance and scalability

Course Topics

Examining the Role of Oracle OLAP within the Oracle BI / DW Platform

Oracle OLAP and the Oracle BI / DW Platform

Features of the Oracle OLAP Option

Accessing Oracle 11g OLAP data

Understanding the Dimensional Model

Stored and Calculated Measures

Dimensions

Hierarchies

Levels

Attributes

Building OLAP Cubes

Using the Cube Building Tool

Creating Dimensions

Designing Cubes

Creating Measures

Mapping to Source Data

Loading Data

Examining Cube-Organized Materialized Views (Cube MVs)

- Benefits of Cube MV Summary Management
- General Requirements for rewrite to MVs
- Designing Cube MVs
- Using Cube MVs

Creating Calculated Measures

- Examining OLAP Calculation Types
- Using the Calculation Builder
- Creating Common Business Calculations
- Creating Custom Calculations

Using SQL to Query Oracle OLAP Cubes

- Understanding Cube Views
- Querying OLAP Cubes: The Basics
- Leveraging Cube Summaries
- Applying Query Filters
- Joining OLAP and Relational Data

Enhancing Analytic Content

- Creating Cubes with Varying Dimensionality
- Integrating Measures from Data with Different Dimensionality
- Creating Forecast Measures Using OLAP DML

Using Ad Hoc Query and Reporting Tools Against OLAP Data

- Exploring OLAP Data Using Oracle Application Express (APEX)
- Performing Ad Hoc Query of OLAP Data Using Oracle BI Answers
- Examining Metadata Requirements for BI Tools

Implementing Cube Security

- Understanding Authentication Requirements
- Authorizing Access to Cube Data
- Examining User and Object Privileges
- Examining Methods for Scoping User Views of Data

Designing Cubes for Performance and Scalability

- Objectives of Performant and Scalable Design
- Examining how Data is Stored in Oracle Cubes
- Identifying Cube Features that Impact Performance and Scalability
- Implementing Design Techniques for Performance and Scalability

Examining Performance Tuning

- Describing How Cubes are Stored
- Understand Cube Build Processing
- Examining Balanced Configurations
- Correcting Performance Bottlenecks