

# Oracle Database 12c: SQL and PL/SQL Fundamentals

This Oracle Database: SQL and PL/SQL Fundamentals training delivers the fundamentals of SQL and PL/SQL along with the benefits of the programming languages using Oracle Database technology. You'll explore the concepts of relational databases.

## Learn To:

- Write queries against single and multiple tables, manipulate data in tables and create database objects.
- Use single row functions to customize output.
- Invoke conversion functions and conditional expressions.
- Use group functions to report aggregated data.
- Create PL/SQL blocks of application code that can be shared by multiple forms, reports and data management applications.
- Develop anonymous PL/SQL blocks, stored procedures and functions.
- Declare identifiers and trap exceptions.
- Use DML statements to manage data.
- Use DDL statements to manage database objects.
- Declare PL/SQL Variables.
- Conditionally control code flow (loops, control structures).
- Describe stored procedures and functions.
- Retrieve row and column data from tables.

#### Benefits to You

Ensure fast, reliable, secure and easy to manage performance. Optimize database workloads, lower IT costs and deliver a higher quality of service by enabling consolidation onto database clouds.

### **Hands-On Practices**

Demonstrations and hands-on practice reinforce the fundamental concepts that you'll learn in this course. By enrolling in this course, you'll begin using Oracle SQL Developer to develop these program units. SQL\*Plus is available as optional tools.

#### **Course Bundle**

Note: This course is a combination of Oracle Database: SQL Workshop I and Oracle Database: PL/SQL Fundamentals courses.

## Audience

- Developer
- Implementer

# **Objectives**

- Run data manipulation statements (DML) to update data in the Oracle Database.
- Design PL/SQL anonymous block that execute efficiently.
- Describe the features and syntax of PL/SQL.
- Handle runtime errors.
- Describe stored procedures and functions.
- Use PL/SQL programming constructs and conditionally control code flow (loops, control structures, and explicit cursors).
- Use cursors to process rows.
- Identify the major structural components of the Oracle Database 11g.
- Retrieve row and column data from tables with the SELECT statement.
- Create reports of sorted and restricted data.
- Employ SQL functions to generate and retrieve customized data.
- Display data from multiple tables using the ANSI SQL 99 JOIN syntax.
- Create reports of aggregated data.
- Run data definition language (DDL) statements to create and manage schema objects.

# **Topics**

- Introduction
- Retrieve Data using the SQL SELECT Statement
- · Restricted and Sorted Data
- Usage of Single-Row Functions to Customize Output
- Conversion Functions and Conditional Expressions
- Aggregated Data Using the Group Functions
- Display Data From Multiple Tables
- Usage of Subqueries to Solve Queries
- SET Operators
- Data Manipulation
- DDL Statements to Create and Manage Tables
- Other Schema Objects
- Introduction to PL/SQL
- PL/SQL Identifiers
- Write Executable Statements
- Interaction with the Oracle Server
- Control Structures
- Usage of Composite Data Types
- Explicit Cursors
- Exception Handling
- Stored Procedures and Functions