

Oracle Database 19c: PL/SQL Workshop

Duration:
5 days

This course introduces students to PL/SQL, Procedural Language for SQL. Explore the differences between SQL and PL/SQL. Examine the characteristics of PL/SQL and how it is used to extend and automate SQL.

Course Objectives

Upon completion of this course, the student should be able to:

- Get an overview of PL/SQL
- Learn how to declare variables
- Write executable statements
- Learn how to use SQL statements in PL/SQL Programming

Benefits To You

Extend the functionality of the SQL language with PL/SQL language to write application code so that your organization can realize the full benefit of utilizing Oracle best practices.

Course Topics

1. Introduction

- Practice 1-1: Getting Started

2. Introduction to PL/SQL

- Practice 2-1: Introduction to PL/SQL

3. Declaring PL/SQL Variables

- The %TYPE Attribute
- Practice 3-1: Declaring PL/SQL Variables

4. Writing Executable Statements

- Practice 4-1: Writing Executable Statements

5. Using SQL Statements Within a PL/SQL Block

- Practice 5-1: Using SQL Statements Within a PL/SQL

6. Writing Control Structures

- Basic Loop: Example
- Practice 6-1: Writing Control Structures

7. Working with Composite Data Types

- Associative Arrays (INDEX BY Tables)
- Practice 7-1: Working with Composite Data Types

8. Using Explicit Cursors

- Cursor FOR Loops
- Practice 8-1: Using Explicit Cursors
- Practice 8-2: Using Explicit Cursors: Optional

9. Handling Exceptions

- Practice 9-1: Handling Predefined Exceptions
- Practice 9-2: Handling Standard Oracle Server Exceptions

10. Introducing Stored Procedures and Functions

- Practice 10-1: Creating and Using Stored Procedures

11. Creating Procedures

- Practice 11-1: Creating and Using a New SQL Developer Database Connection
- Practice 11-2: Creating, Compiling, and Calling Procedures

12. Creating Functions

- Practice 12-1: Creating Functions

13. Debugging Subprograms

- Practice 13-1: Introduction to the SQL Developer Debugger

14. Creating Packages

- Practice 14-1: Creating and Using Packages

15. Working with Packages

- Practice 15-1: Working with Packages

16. Using Oracle-Supplied Packages in Application Development

- Practice 16-1: Using the UTL_FILE Package

17. Using Dynamic SQL

- Practice 17-1: Using Native Dynamic SQL

18. Creating Triggers

- Practice 18-1: Creating Statement and Row Triggers

19. Creating Compound, DDL, and Event Database Triggers

- Practice 19-1: Managing Data Integrity Rules and Mutating Table Exceptions

20. Design Considerations for the PL/SQL Code

- Practice 20-1: Using Bulk Binding and Autonomous Transactions

21. Tuning the PL/SQL Compiler

- Practice 21-1: Using the PL/SQL Compiler Parameters and Warnings

22. Managing Dependencies

- Practice 22-1: Managing Dependencies in Your Schema