



Oracle PLSQL

Course Summary

- Use conditional compilation to customize the functionality in a PL/SQL application without removing any source code
- Design PL/SQL packages to group related constructs
- Create overloaded package subprograms for more flexibility
- Design PL/SQL anonymous blocks that execute efficiently
- Use the Oracle supplied PL/SQL packages to generate screen output, file output and mail output
- Write dynamic SQL for more coding flexibility
- Describe the features and syntax of PL/SQL
- Create and debug stored procedures and functions
- Use PL/SQL programming constructs and conditionally control code flow (loops, control structures, and explicit cursors)
- Manage dependencies between PL/SQL subprograms
- Handle runtime errors
- Create triggers to solve business challenges

Duration

3 days

Objectives



- 📄 Use conditional compilation to customize the functionality in a PL/SQL application without removing any source code
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Audience

- 📄 Application Developers
- 📄 Developer
- 📄 End Users
- 📄 PL/SQL Developer
- 📄 Database Administrators
- 📄 Technical Consultant
- 📄 Forms Developer
- 📄 Support Engineer

Pre-Requisites

- 📄 Familiarity with data processing concepts and techniques








-  Familiarity with programming concepts.
-  Hand on in SQL .








Outline

Day-1:







1. Introduction to PL/SQL

-  PL/SQL Overview
-  List the benefits of PL/SQL Subprograms
-  Overview of the Types of PL/SQL blocks
-  Create a Simple Anonymous Block
-  Generate the Output from a PL/SQL Block

2. PL/SQL Identifiers

-  List the different Types of Identifiers in a PL/SQL subprogram
-  Usage of the Declarative Section to Define Identifiers
-  Use of variables to store data
-  Scalar Data Types
-  %TYPE Attribute
-  Bind Variables
-  Sequences in PL/SQL Expressions






3. Write Executable Statements

-  Basic PL/SQL Block Syntax Guidelines
-  How to comment code?
-  SQL Functions in PL/SQL
-  Data Type Conversion
-  Nested Blocks
-  Operators in PL/SQL









Day-2:







4. Interaction with the Oracle Server

-  SELECT Statements in PL/SQL to Retrieve data
-  Data Manipulation in the Server Using PL/SQL
-  The SQL Cursor concept
-  Learn to use SQL Cursor Attributes to Obtain Feedback on DML
-  How to save and discard transactions?

5. Control Structures




-  Conditional processing Using IF Statements
-  Conditional processing Using CASE Statements
-  Simple Loop Statement
-  While Loop Statement
-  For Loop Statement
-  The Continue Statement

6. Usage of Composite Data Types






-  PL/SQL Records
-  The %ROWTYPE Attribute
-  Insert and Update with PL/SQL Records
-  Associative Arrays (INDEX BY Tables)
-  INDEX BY Table Methods
-  INDEX BY Table of Records

Day-3:








7. Explicit Cursors

-  Understand Explicit Cursors
-  Declare the Cursor
-  How to open the Cursor?










-  Fetching data from the Cursor
-  How to close the Cursor?
-  Cursor FOR loop
-  Explicit Cursor Attributes
-  FOR UPDATE Clause and WHERE CURRENT Clause






8. Exception Handling

-  What are exceptions?
-  Handle Exceptions with PL/SQL
-  Trap Predefined Oracle Server Errors
-  Trap Non-Predefined Oracle Server Errors
-  Trap User-Defined Exceptions
-  Propagate Exceptions
-  RAISE_APPLICATION_ERROR Procedure

9. Stored Procedures and Functions

-  What are Stored Procedures and Functions?
-  Differentiate between anonymous blocks and subprograms
-  Create a Simple Procedure
-  Create a Simple Procedure with IN parameter
-  Create a Simple Function
-  Execute a Simple Procedure
-  Execute a Simple Function

Lab Requirements

-  Windows XP, Windows 7 or above
-  Web Browser
-  Ram 4 GB
-  Processor dual core above
-  Internet Connection

