Oracle Database: PL/SQL Fundamentals

Category: AI, Data & Analytics | **Vendor:** Oracle

Duration: 16.00 hours (2 days) **13.0 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

The Oracle Database: PL/SQL Fundamentals Ed 2 course introduces students to the PL/SQL programming language. In the class, students learn to create PL/SQL blocks of application code.

Learn To:

- Use various features of PL/SQL.
- Write anonymous blocks of code in PL/SQL.
- Use various PL/SQL conditional constructs and loops in program blocks.
- Interface the PL/SQL code with the database.
- Use stored procedures and functions in their program blocks.
- Handle Exceptions in PL/SQL code.

Benefits To You

Students will benefit from this course as it enables programmers with the skill of using this programming language. In the class students will learn to create anonymous PL/SQL blocks, to create procedures, functions and triggers. Students will learn to use explicit cursors in their program blocks. Demonstrations and hands-on practice reinforce the fundamental concepts. Students use Oracle SQL Developer to develop these program units. SQL*Plus is introduced as optional tools.

About This Course

- Introduction
- Introduction to PL/SQL
- Declaring PL/SQL Variables
- Writing Anonymous PL/SQL blocks
- Using SQL Statements within a PL/SQL Block
- Writing Control Structures
- Working with Composite Data Types
- Using Explicit Cursors
- Handling Exceptions
- Creating Stored Procedures and Functions

Who Should Attend

- Database Administrators
- System Analysts
- Forms Developer
- Technical Consultant
- Portal Developer
- PL/SQL Developer

Prerequisites & Entry Requirements

General Prerequisites:

Required Prerequisites:

- Familiarity with data processing concepts and technique
- Familiarity with programming languages
- (!)

Suggested Prerequisites:

- Familiarity with data processing concepts and techniques
- Familiarity with programming languages

Learning Outcomes

Upon successful completion of this course, participants will be able to:

- Design PL/SQL anonymous block that execute efficiently
- Use PL/SQL programming constructs and conditionally control code flow (loops, control structures, and explicit cursors)
- Handle exceptions in the program units
- Create and execute simple stored procedures and functions
- Write PL/SQL code to interface with the database
- Describe the features and syntax of PL/SQL

Detailed Course Outline

Introduction

- Course Objectives, Course Agenda and Class Account Information
- The Human Resources (HR) Schema
- Appendices Used in this Course
- PL/SQL Development Environments

Introduction to PL/SQL

- Understanding the benefits and structure of PL/SQL
- Understanding PL/SQL Blocks
- Generating output messages in PL/SQL

Declaring PL/SQL Variables

- Identifying valid and invalid identifiers
- Declaring and initializing variables

- Various data types

- Identifying the benefits of using the %TYPE attribute

- Using bind variables

Writing Anonymous PL/SQL blocks

- Lexical Units in a PL/SQL Block

- Using SQL Functions in PL/SQL

- Data Type Conversion

- Using Nested Blocks as Statements

- Referencing an Identifier Value in a Nested Block

- Qualifying an Identifier with a Label

- Operators in PL/SQL

- Using Sequences in PL/SQL Expressions

Using SQL Statements within a PL/SQL Block

- Using SQL Statements in PL/SQL

- Retrieving Data in PL/SQL with the SELECT statement

- Using Naming Conventions in DML Statements and data retrieval

- Manipulating Data on the Server Using PL/SQL

- SQL Cursors

- Using SQL Cursor Attributes to Obtain Feedback on DML

- Saving and Discarding Transactions

Writing Control Structures

- Controlling PL/SQL Flow of Execution

- Using IF and CASE Statements for conditional processing

- Handling Nulls

- Building Boolean Conditions with Logical Operators

- Using Iterative Control with Loop Statements

Working with Composite Data Types

- Composite Data Types of PL/SQL Records and Tables
- Using PL/SQL Records
- Inserting and Updating PL/SQL Records
- Using INDEX BY Tables
- Using Associative arrays
- Declaring and Using VArrays

Using Explicit Cursors

- Cursors
- Explicit Cursor Operations
- Controlling Explicit Cursors
- Using Explicit Cursors to Process Rows
- Cursors and Records
- Cursor FOR Loops Using Subqueries
- Explicit Cursor Attributes
- %NOTFOUND and %ROWCOUNT Attributes

Handling Exceptions

- Concept of Exception
- Handling Exceptions with PL/SQL
- Predefined Exceptions
- Trapping Predefined and Non-predefined Oracle Server Errors
- Functions that Return Information on Exceptions
- Usage of PRAGMA keyword
- Trapping User-Defined Exceptions
- Propagating Exceptions

Creating Stored Procedures and Functions

- Overview of Stored Procedures and Functions
- Differentiating between anonymous blocks and subprograms
- CREATE OR REPLACE PROCEDURE | FUNCTION
- Understanding the Header Area of a Stored Procedure and Function
- Creating Simple Procedures and Functions
- Creating a Simple Procedure with an IN Parameter
- Executing a Procedure and a Function

Skills You Will Learn:

- Design PL/SQL anonymous block that execute efficiently
- Use PL/SQL programming constructs and conditionally control code flow (loops, control structures, and explicit cursors)
- Handle exceptions in the program units
- Create and execute simple stored procedures and functions
- Write PL/SQL code to interface with the database
- Describe the features and syntax of PL/SQL

Frequently Asked Questions

Q: What delivery options are available for Oracle Database: PL/SQL Fundamentals?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 2-day Oracle Database: PL/SQL Fundamentals course provides up to 13.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Oracle Database: PL/SQL Fundamentals training?

The training takes place over 2 day(s), with each day lasting approximately 16.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Oracle Database: PL/SQL Fundamentals?

Yes, we provide corporate training, dedicated training, and closed classes for Oracle Database: PL/SQL Fundamentals. Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: Oracle Database: PL/SQL Fundamentals, Oracle Database Training, D80182

Q: Why choose Nexus Human for Oracle Database: PL/SQL Fundamentals?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Oracle Database: PL/SQL Fundamentals training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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