

**Price:** R6,900.00 excl. VAT  
**Duration:** 3 days  
**Code:** PLSQL

# Oracle PL/SQL Development

## Description

The Oracle PL/SQL Development course is aimed at developers as it focuses on the programming elements of Oracle's PL/SQL Language. It also includes some of the more advanced Oracle SQL features and extensions to standard ANSI SQL.

## Objectives

Delegates with the requisite background who complete the Oracle PL/SQL Development course will be able to:

- Use PL/SQL Developer in a productive fashion.
- Create, debug and maintain PL/SQL packages, types, procedures, functions and triggers.
- Formulate program flow using selection, iteration and error control statements.
- Use language elements such as blocks, parameters, local variables, arrays, temporary tables and cursors.

## Intended Audience

The Oracle PL/SQL Development course is intended for developers who require a PL/SQL foundation in order to create, debug and maintain types, packages, procedures, functions and triggers.

## Prerequisites

Delegates who wish to attend the Oracle PL/SQL Development course must have programming experience and either our SQL Fundamentals course or familiarity with the more common aspects of SQL (Standard SQL or Oracle's version).

## Course Contents

*The lecturer reserves the right to modify the contents of the course to suit the needs of the delegates.*

**Fundamentals** • Database components. • Standard & 3rd party tools. • Storage & Architecture. • Networking. • Creating & using databases. • Data dictionary. • Security. • Table spaces. • Clusters. • Indexes. • Schemas. • Synonyms. • Links.

**PL/SQL Developer** • Features. • Installation. • Applicability to various tasks. • Integration of Oracle's HTHL help files. • Customization. • Views. • Windows. • Database exploration. • Code editor. • Command window. • Ad hoc queries. • Statistics.

**Oracle SQL** • ANSI SQL vs Oracle SQL. • Data types. • Literals. • Expressions. • Operators. • Scalar & aggregate functions. • Constraints. • Indices. • Views. • Materialized queries. • Object comments. • Temporary tables. • Sequences. • Joins. • Set operations. • Transactions & save points. • Limiting rows & ranking. • Regular expressions. • Performance. • Explain plan.

**PL/SQL** • Procedural features. • Relationship with SQL. • Blocks. • Declarations. • Host variables. • PL/SQL variables, constants, collections & objects. • Error codes. • Statements: selection, iteration, error handling (exceptions). • Cursors. • Packages. • Libraries. • Other data structures. • Dynamic SQL.

**Stored Procedures** • Structure. • Parameters. • Output parameters. • Local variables. • Arrays. • Temporary Tables. • Calling from interactive tools & other languages.

**Functions** • Structure. • Return values. • Functions that access tables (issues & solutions).

**Triggers** • Concepts. • Syntax. • Table & Row triggers. • Before & After triggers. • Old vs New data. • Performance issues & other considerations. • Allowable actions.

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**Miscellaneous** • Good coding practices. • Documentation. • Oracle File System (OFS). • Other development scenarios.