**PL/SQL Training Duration: 3 Days**

**About the PL SQL Training**

PL/SQL abbreviated as Procedural Training/Structured Source Language that is associated with Oracle Corporation’s procedural extension for SQL and also the information. PL/SQL Training includes procedural language components like loops and conditions that permit declaration of constants and variables, procedures and functions and might handle runtime errors. One will produce PL/SQL units like procedures, functions, packages, sorts and triggers that are keep within the information for the use by applications that are utilized by any of the Oracle Database informatic interfaces.

**Objectives of the Course**

* Character Functions
* Processing Hierarchies
* Oracle Database Environment
* Ordering the Output
* Conditional Retrieval of Data
* Pseudo Columns and Functions

**Who Should do the Course:**

* Software Developers
* Database Administrators
* SQL and Analytics Professionals
* BI and Data Warehousing Professionals
* Those are showing interest towards a career in Oracle Database PL/SQL

**PL SQL Course Content**

**Day 1**

**PL-SQL (Procedure Language – SQL) :**

* Introduction to Programming Languages
* Introduction to PL/SQL
* The Advantages of PL/SQL
* PL/SQL Architecture
* PL/SQL Data types
* Variable and Constants
* Using Built\_in Functions
* Conditional and Unconditional Statements
* Simple if, if… else, nested if..else, if..else Ladder
* Selection Case, Simple Case, GOTO Label   and EXIT
* Iterations in PL/SQL
  + Simple LOOP,WHILE LOOP,FOR LOOP   and NESTED LOOPS
  + SQL within PL/SQL
  + Composite Data types (Complete)
  + Cursor Management in PL/SQL
  + Implicit Cursors
  + Explicit Cursors
  + Cursor Attributes
  + Cursor with Parameters
  + Cursors with LOOPs Nested Cursors
  + Cursors with Sub Queries
  + Ref. Cursors
    - Record and PL/SQL Table Types

Day 2

**Advanced PL/SQL**

* **Procedures in PL/SQL :**
* STORED PROCEDURES
* PROCEDURE with Parameters (IN,OUT  and IN OUT)
* POSITIONAL Notation and NAMED Notation
* Procedure with Cursors
* Dropping a Procedure
  + **Functions in PL/SQL :**
  + Difference between Procedures and Functions
  + User Defined Functions
  + Nested Functions
  + Using stored function in SQL statements
    - **Packages in PL/SQL :**
    - Creating PACKAGE Specification and  PACKAGE Body
    - Private and Public Objects in PACKAGE

**EXCEPTIONS in PL/SQL :**

* **Types of exceptions :**
* User Defined Exceptions
* Pre Defined Exceptions
* RAISE\_APPLICATION\_ERROR
* PRAGMA\_AUTONOMOUS\_TRANSACTION
* SQL Error Code Values

**Database Triggers in PL/SQL :**

* Types of Triggers
* Row Level Triggers
* Statement Level Triggers
* DDL Triggers
* Trigger Auditing

**File Input/Output :**

* PL/SQL file I/O (Input/Output)
* Using UTL\_FILE Package

**Implementing Object Technology**

* What is Object Technology ?
* OOPS-Object Instances
* Creation of objects
* Creating User Defined Data Types
* Creating Object Tables
* Inserting rows in a table using Objects
* Retrieving data from Object based Tables
* Calling a Method
* Indexing Abstact Data type Attributes

Day 3

**Using LOBS**

* Large Objects (LOBS)
* Creating Tables-LOB
* Working with LOB values
* Inserting, Updating & Deleting Values in LOBs
* Populating Lobis DBMS\_LOB Routines
* Using B-FILE

**Using Collections**

* Advantages of collection
* Ref cursor (Dynamic Cursor)
* Weak ref cursor
* Strong ref cursor
* Nested Tables VARRAYS or VARYING arrays
* Creating tables using nested tables
* Inserting, updating & deleting Nested
* Table records
* Nested table in PL/SQL