



Oracle 10g PL/SQL Intermediate 3 Day Course

About the Course

Learn to compile PL/SQL programs, work with data and testing procedures, and gain an understanding of Advanced PL/SQL features.

The course is intended for those who need to develop further their ORACLE database knowledge, be this from the viewpoint of DBA, project manager, developer, or as support staff. Throughout the course, the training follows a pattern of firstly how and why ORACLE works as it does, followed by how to engineer changes, hands-on. Lastly, as the course moves on and the delegate acquires more skills, business based workshops are introduced.

A real-world view of the training is adopted, to take the delegate past the training lab and into the world of business computing. Your contribution to the labs is highly valued in this respect. Feel free to discuss issues relating to your own businesses, especially where the class as a whole would benefit from seeing what problems, and options to solve them, exist outside the lab.

➤ Who should attend?

Application developers and database administrators who need a comprehensive understanding of Oracle 10g PL/SQL language.

➤ Prerequisites

Delegates must be familiar with Oracle to a basic level. This is essential. Ideally you should have received the introductory course and had some months direct experience with Oracle in the workplace subsequently. There is a great deal of information to take in over the time we are together and the pace of the course is necessarily brisk. The more previous Oracle experience you have had, the more you will get out of the course. If you have used Oracle SQL for some time and are familiar with the terminology used by Oracle specialists, you will be able to take this course in your stride.

DURATION: 3 DAYS

Course Outline

1. Review of Introduction to PL/SQL

- Features and benefits of PL/SQL, relationship of PL/SQL to SQL, PL/SQL development tools
- Native compilation
- PL/SQL system and session parameters, PL/SQL anonymous block structure
- Variable declarations, declaring variable datatypes dynamically, declaring explicit cursors
- PL/SQL types and records, modifying database data (DML), transaction control statements, implicit cursor attributes, exception handling, creating procedures, functions, packages, and DML triggers

2. Advanced Cursors

- Cursor parameters, parameter defaults
- Taking advantage of a weak cursor variable
- OPEN FOR, FETCH and CLOSE
- Using the FOR UPDATE clause, PL/SQL collections and nested collections



Course Outline Continued

3. Advanced Packages

- Initializing variables, module overloading, recursion, purity levels
- Using the "Persistent State" advantage
- One time only procedures, forward declarations, using persistent state, code encapsulation, constant and exception standardization

4. Advanced Triggers

- Trigger limitations, Mutating and Constraining Tables
- Using CALL and client triggers, DDL / SERVERERROR triggers, LOGON/LOGOFF, SUSPEND, STARTUP/SHUTDOWN triggers, schema versus database triggers
- Using alternative events and levels, INSTEAD OF triggers on views

5. PL/SQL Composite Datatypes and Collections

- PL/SQL records, associative arrays (INDEX BY), nested tables, VARRAYs
- Built-in type methods, arrays of composite types, using PL/SQL record variables, PL/SQL collections

6. Bulk-Bind Data Loading Using PL/SQL

- Defining bulk binds, BULK COLLECT / FORALL, Error handling with bulk binds - SAVE EXCEPTIONS

7. Using Oracle Supplied Packages

- DBMS_OUTPUT Package, UTL_FILE Package (file i/o)
- DBMS_ALERT Package, DBMS_PIPE Package, DBMS_JOB Package, DBMS_SCHEDULER Package, DBMS_STATS Package, DBMS_UTILITY Package
- UTL_SMTP Package, UTL_MAIL Package, DBMS_SQL Package

8. Writing Native Dynamic SQL

- EXECUTE IMMEDIATE, benefits Of NDS

9. PL/SQL Wrapper

- PL/SQL wrapper (source code encryption)

10. Understanding Dependencies

- Defining dependencies, local versus remote, viewing dependencies, effect of breaking dependency chain

11. Large Object Management in PL/SQL Differences between LONG/LONG RAW and LOBs

- Creating and using BFILEs, creating tables with LOBs, LOBs and PL/SQL, DBMS_LOB capabilities, Temporary LOBs