



Course 262: Introduction to Oracle PL/SQL for Developers, Hands-On

Course Description...

PL/SQL (Procedural Language extension for SQL) is Oracle's database language. Application developers use it for stored procedures, functions, triggers, and even front-end code environments such as Oracle Developer Suite (FORMS, REPORTS) and PSP pages. In the Oracle world, this is the language used for database interactions.

Learning Objectives...

- The basic block – embedded statement construct of the language
- How to define variables and other memory structures
- Calling functions and other code
- Debugging and Testing techniques
- Retrieving sets of data from Oracle
- Maintaining data using transactional control
- Using EXCEPTION processing to handle errors and manage the application process flow

Who should attend...

Anyone involved in the application development process. Typical job functions include: programmers, systems analysts, application designers, testers, and support personnel. Database Administrators (DBAs) will also benefit by gaining the ability to write code to more effectively manage their databases.

Prerequisites...

Knowledge of SQL and the Oracle Database is required. Some programming experience is a plus.



Course Outline

Introduction and Overview

Course Objectives

Unit 1: PL/SQL Overview

- The role of PL/SQL in the Oracle environment
- The block structure
- Forms of execution
 - Anonymous blocks
 - Stored code
- Development environments
 - Oracle's SQL*Plus products
 - 3rd party products

Unit 2: PL/SQL Basics

- Declaring variables
- Datatypes
 - Storable datatypes
 - Programmatic datatypes
 - Anchoring
- Record definitions
 - Table records

Unit 3: Executable Statements

- Built-in functions
- Process flow control
- Nesting blocks
- Scope and visibility
 - Naming conventions

Unit 4: Debugging and Testing

- Compiler processing and messages
- Creating the test environment

Unit 5: Interacting with the Oracle Server

- Reading Data
 - SELECT INTO
 - Explicit cursors
 - The Cursor FOR LOOP statement
- Issuing DML statements
 - Implicit cursors
 - Using records
- Transactional control
 - Locking
 - SELECT FOR UPDATE
 - COMMIT, ROLLBACK



Unit 6: Exception Processing

- The Exception Section
- Exception definitions
- Writing handlers
- Exception propagation

Unit 7: Course Summary

Summary