

O021 - Oracle 10g PLSQL

Course Objectives

This course introduces the fundamentals of Oracle's procedural language, PL/SQL, the engine behind the full range of Oracle technology.

The course introduces the syntactic transactional languages controls evolving to cover the full range of PL/SQL programming functionality found within the Oracle 10g RDBMS.

This practical course is an essential foundation study course needed for all Oracle 10g RDBMS professionals to maximise their utilisation of Oracle 10g and the productive benefits that can be achieved through the essential deployment of PL/SQL functionality across the business.

| Who Should Attend | Prerequisites | Duration |
|---|-------------------------------|----------|
| Oracle Analyst/Programmers Oracle Technicians Oracle DBA's Oracle Developers | PC Fundamentals Oracle SQL | 5 Days |

Course Contents

PL/SQL Basics

Introduction
PL/SQL Block Structure

Declaring

Variable Types
Datatypes
Creating Variables and Constants
%Type Identifiers

Basic Data Processing

Select ... Into Command

Procedural Processing

Simple or Infinite Loops
While Loops
For Loops
IF Statements
GOTO

Data Processing

Creating Explicit Cursors
Working with Cursors
Using Cursors with Loops
Parameterised Cursors
Cursor Attributes
Implicit Cursors
Cursor for Loops

Error Handling

Introduction to Exceptions
Creating Programmer Defined Exceptions

Exceptions
Redefining Oracle Exceptions
Raising Application Errors
Using Error Variables

Modularization

PL/SQL block structure
Procedures
Functions
Parameters

Stored PL/SQL code

User Schemas
Hints
Dependencies
Invoker Rights
Overloaded Modules
Local Modules
Shared Global Area
Code Wrapping

Packages

Creating Packages
Dropping Packages
Parameter passing by reference
Serially reusable packages

Transactional Control

Commit
Rollback
Savepoint
Autonomous Transactions

Extending the Type System

PL/SQL Collections
Associated Arrays
Nested Tables
Bulk Binds
Bulk Exceptions
Caching Data

Database Triggers

Writing Database Triggers
Database Trigger Syntax
Accessing Column Values in Triggers
Trigger Restrictions

Database Trigger Firing Sequence

Disabling Triggers
Enabling Triggers
Dropping Triggers
Database Triggers (from 9i)

Data Dictionary Views

Naming Conventions
Package security

Oracle Supplied Packages

DBMS_OUTPUT
DBMS_JOB
DBMS_PROFILER
DBMS_RANDOM

File IO with UTL_FILE package

Dynamic SQL

Methods

Performing Dynamic SQL with
DBMS_SQL Package
Native Dynamic SQL

Large Object Support

Large Object Principles
Using DBMS_LOB

Web PL/SQL Development

Output with http.p

Specific http procedures

PL/SQL Toolkit Packages

owa_cookie

owa_image

owa_pattern

owa_util

utl_http

10g PLSQL Language

Improvements

Improvements discussion

Regular Expressions

Additional floating point types

Nested table enhancements

Utility packages for
compression/mail/warnings