



Training | Consulting | Development | Outsourcing

Dynamic  
SQL



Oracle SQL PLSQL + Oracle Apps R12

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# Oracle SQL / PLSQL + Oracle Apps R12 Technical Combo Course

## Course Overview:

This course introduces students to PL/SQL, Oracle's procedural extension language for SQL and the Oracle relational database. Participants explore the differences between SQL and PL/SQL. They also examine the characteristics of PL/SQL and how it is used to extend and automate SQL to administer the Oracle database. This course culminates with a project that challenges students to program, implement, and demonstrate a database solution for a business or organization.

Oracle apps technical provides students with a basic understanding of the architecture, database and file system used in Oracle Applications Release 11i. Students will learn about the multi-tier architecture used to provide user access over the Internet or an intranet and the relationship between Oracle Applications and the Oracle database

## Course Outline:

### SQL

#### 1: Introduction to Oracle Database (SQL):

- What is Database
- Why Oracle
- Introduction to SQL and SQL \*Plus, More SQL\*Plus Commands
- The Data Dictionary

#### 2: Data Query Language (DQL):

- Categories of SQL Statements
- Oracle Data types
- The SELECT Statement
- Practical examples

### **3: Data Definition Language (DDL):**

- DDL Statements  
The CREATE Statement
- The DROP Command
- The ALTER Command
- Practical examples

### **4: Data Manipulation Language (DML):**

- DML Statements,
- The INSERT Statement
- The DELETE Statement
- The UPDATE Statement

### **5: Transaction Control Language (TCL):**

- TCL Statements
- COMMIT Statement
- ROLLBACK Statement
- SAVEPOINT Statement

### **6: Data Control Language (DCL):**

- DCL Statements
- GRANT Statement
- REVOKE Statement

### **7: Integrity Constraints:**

- Introduction to Integrity Constraints
- Categories of Integrity Constraints
- NOT NULL Constraints
- UNIQUE KEY Constraints
- PRIMARY KEY Constraints
- FOREIGN KEY or Referential Integrity Constraints
- CHECK Constraints, Practical examples

## 8: SQL Operators:

- Simple Selects
- Comparison Operators
- IN and NOT IN Operators
- BETWEEN Operator
- The LIKE Operator
- Logical Operators
- IS NULL and IS NOT NULL
- ANY
- ALL
- EXISTS

## 9: Set Operators:

- Introduction
- Selection Criteria
- Union
- Union All
- Intersect
- Minus

## 10: Joining Tables:

- Joins
- Table Aliases
- Cartesian Product
- Inner Joins
- Equi- Join
- Non-Equi Join
- Non-Key Join
- Reflexive / Self Join
- Natural Join

- Outer Joins
- Right Outer Join
- Left Outer Join
- Full Outer Join

#### **11: SQL Sub queries:**

- Introduction
- Using a Sub query with a DML Statement
- Typical Sub queries
- Sub query Operators
- Standard vs. Correlated Sub queries
- Correlated Sub query

#### **12: Groups:**

- SQL Statements
- GROUP BY Clause
- HAVING Clause
- Order of a SELECT Statement

#### **13: SQL BUILT-IN FUNCTIONS:**

- Introduction, Pseudo Columns
- GROUP Functions
- MATHEMATICAL / NUMERIC Functions
- STRING / CHARACTER Functions
- DATE / TIME Functions
- CONVERSION Functions
- MISCELLANEOUS Functions

#### **14: More Database Objects:**

- More Database Objects

- VIEWS
- SEQUENCE
- SYNONYMS

# PLSQL

## 1: Fundamentals

- Introduction to PL/SQL
- Benefits of PL/SQL
- Creating PL/SQL Blocks

## 2: Defining Variables and Datatypes

- Using Variables in PL/SQL
- Recognizing PL/SQL Lexical Units
- Recognizing Data Types
- Using Scalar Data Types
- Writing PL/SQL Executable Statements
- Nested Blocks and Variable Scope
- Good Programming Practices

## 3: Using SQL in PL/SQL

- Review of SQL DML
- Retrieving Data in PL/SQL
- Manipulating Data in PL/SQL
- Using Transaction Control Statements

## 4: Program Structures to Control Execution Flow

- Conditional Control: IF Statements
- Conditional Control: CASE Statements
- Iterative Control: Basic Loops
- Iterative Control: WHILE and FOR Loops
- Iterative Control: Nested Loops

## 5: Using Composite Datatypes

- User-Defined Records
- Indexing Tables of Records

## **6: Using Cursors and Parameters**

- Introduction to Explicit Cursors
- Using Explicit Cursor Attributes
- Cursor FOR Loops
- Cursors with Parameters
- Using Cursors for UPDATE
- Using Multiple Cursors

## **7: Exception Handling**

- Handling Exceptions
- Trapping Oracle Server Exceptions
- Trapping User-Defined Exceptions
- Recognizing the Scope of Exceptions

## **8: Using and Managing Procedures**

- Creating Procedures
- Using Parameters in Procedures
- Passing Parameters

## **9: Using and Managing Functions**

- Creating Functions
- Using Functions in SQL Statements
- Review of the Data Dictionary
- Managing Procedures and Functions
- Review of Object Privileges
- Using Invoker's Rights and Autonomous Transactions

## **10: Using and Managing Packages**

- Creating Packages
- Managing Package Concepts
- Advanced Package Concepts

## **11: Getting the Best out of Packages**

- Persistent State of Package Variables
- Using Oracle-Supplied Packages

## **12: Improving PL/SQL Performance**

- Using Dynamic SQL
- Improving PL/SQL Performance

## **13: Using and Managing Triggers**

- Introduction To Triggers
- Creating DML Triggers, Part I
- Creating DML Triggers, Part II
- Creating DDL and Database Event Triggers
- Managing Triggers

## **14: Recognizing and Managing Dependencies**

- Introduction to Dependencies
- Understanding Remote Dependencies

## **15: Using the PL/SQL Compiler**

- Using PL/SQL Initialization Parameters
- Displaying Compiler Warning Messages
- Using Conditional Compilation
- Hiding Your Source Code

# **Oracle Apps R12 Technical**



## **Course Outline:**

### **Introduction to ERP**

- Definition of ERP, Overview of popular ERP'S
- Comparison of Oracle Apps with other ERP'S
- Types of Roles
- Types of Projects
- AIM documentation standards
- Oracle Application Architecture.
- Database structure of OA



- Using TOAD

### **Application Object Library**

- Creating Users
- WHO columns
- Creating Responsibilities
- Menu construction
- Request group construction

### **Application development**

- Defining concurrent program
- Concurrent programs with parameters
- Working with multiple concurrent programs
- Scheduling the Concurrent Program
- Concurrent Program incompatibilities
- Creating Request Set
- Procedure registration
- Value sets

### **Reports registration**

- Report development
- Report registration
- Parametric report registration
- Reports with repeating frames

### **Module Overviews**

- Inventory Module flow with base tables
- Accounts Payable module flow with base tables
- Accounts Receivable module flow with base tables
- Order Management module flow with base tables

## Form registration

- Template.fmb
- Appstand.fmb
- Form development using templates
- Form customization concepts
- Form Registration Process
- Custom.PLL
- Using function Zoom\_available( )
- Using procedure Event( )

## Interfaces

- Introduction to Interfaces
- Outbound Interfaces
- - Using UTL\_FILE package
- Inbound Interfaces -
- Using SQL \* Loader tool

## Conversions

- Overview on conversions
- Difference between Interfaces and conversions
- Working with staging table script
- Developing validations package
- Standards to be followed in conversions

## Flex Fields

- Types of Flex Fields
  - Descriptive Flex Fields
  - Key Flex Fields

## Workflows

- Introduction to workflow

- Workflow builder
- Attributes
- Creating Processes
- Sending notifications using workflows

## **XML Publisher**

- Introduction to XML Publisher
- Generating XML file using reports
- Creating Data Definitions

### **Prerequisites:**

- Previous experience with at least one programming language
- Database Design and Database Programming with SQL

### **Who Can attend:**

- Students who wish to learn the techniques and tools to automate database application tasks
- Students who possess basic mathematical, logical, and analytical problem-solving skills
- Novice programmers, as well as those at advanced levels, to learning the PL/SQL programming language to an advanced level

### **Number of Hours: 70hrs**

### **Certification: OCA / OCP**

### **Key Features:**

- One to One Training
- Online Training
- Fastrack & Normal Track
- Resume Modification
- Mock Interviews
- Video Tutorials
- Materials
- Real Time Projects
- Virtual Live Experience
- Preparing for Certification

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