

Oracle PL/SQL – 5 days

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Introduction

- Describing the Life Cycle Development Phases
- Defining a Relational Database
- Discussing the Theoretical, Conceptual, and Physical Aspects of a Relational Database
- Describing How a Relational Database Management System (RDBMS) Is Used to Manage a Relational Database
- Describing How SQL Is Used in the Oracle Product Set

Writing A Basic Sql Statement

- Describing the SQL Select Capabilities
- Executing a Basic Select Statement with the Mandatory Clauses
- Differentiating Between SQL and iSQL*Plus Commands

Restricting And Sorting Data

- Limiting the Rows Retrieved by a Query
- Sorting the Rows Retrieved by a Query

Single Row Functions

- Describing Various Types of Functions Available in SQL
- Using a Variety of Character, Number, and Date Functions in SELECT Statements
- Explaining What the Conversion Functions Are and How They Are Used Using Control Statements

Displaying Data From Multiple Tables

- Writing SELECT Statements to Access Data from More Than One Table
- Describing the Cartesian Product
- Describing and Using the Different Types of Joins
- Writing Joins Using the Tips Provided

Aggregating Data By Using Group Functions

- Identifying the Different Group Functions Available
- Explaining the Use of Group Functions
- Grouping Data by Using the GROUP BY Clause

Producing Readable Output With isql*Plus

- Producing Queries That Require an Input Variable
- Customizing the iSQL*Plus Environment
- Producing More Readable Output

Creating And Managing Tables

- Describing the Main Database Objects
- Creating Tables
- Describing the Oracle Data Types
- Altering Table Definitions
- Dropping, Renaming, and Truncating Tables

Manipulating Data

- Describing Each Data Manipulation Language (DML) Command
- Inserting Rows into a Table
- Updating Rows in a Table
- Deleting Rows from a Table
- Merging Rows into a Table
- Controlling Transactions
- Describing Transaction Processing
- Describing Read Consistency and Implicit and Explicit Locking

Including Constraints

- Describing Constraints
- Creating and Maintaining Constraints

Creating Views

- Describing Views and Their Uses
- Creating a View
- Retrieving Data by Means of a View
- Inserting, Updating and Deleting Data Through Views
- Dropping Views
- Altering the Definition of a View
- Inline Views
- Top 'N' Analysis

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Other Database Objects

- Creating, Maintaining, and Using Sequences
- Creating and Maintaining Indexes
- Creating Private and Public Synonyms

SQL Workshop

- Applying Techniques Learned in this Course
- Preparing for Future Oracle Courses

Controlling User Access

- Understanding the Concepts of Users, Roles and Privileges
- Granting and Revoking Object Privileges
- Creating Roles and Granting Privileges to Roles
- Creating Synonyms for Ease of Table Access

Using Set Operators

- Describing the Set Operators
- Obeying the Set Operators Rules and Guidelines
- Using a Set Operator to Combine Multiple Queries into a Single Subquery
- Controlling the Order of Rows Returned

Oracle 9i Datetime Functions

- Using DATETIME Functions
- Using the NVL2 Function to Handle NULL Values

Enhancements To The GROUP BY Clause

- Using ROLLUP as an Extension to the GROUP BY Clause to Produce Subtotal Values
- Using CUBE as an Extension to the GROUP BY Clause to Produce Cross-Tabulation Values
- Using the GROUPING Function to Identify the Row Values Created by ROLLUP or CUBE Operators
- Using GROUPING SETS to Produce a Single Result Set That Is Equivalent to a UNION ALL Approach Using the WITH Clause

Advanced Subqueries

- Multiple-Column Subqueries
- Writing a Subquery in the FROM Clause
- Writing and describing Correlated Subquery
- Using EXISTS and NOT EXISTS Operators
- Updating and Deleting Rows Using Correlated Subqueries
- Using Scalar Subqueries in SQL

Hierarchical Retrieval

- Discussing the Benefits of the Hierarchical Query
- Ordering the Rows Retrieved by a Query in a Hierarchical Manner
- Formatting Hierarchical Data so That It Is Easy to Read
- Excluding Branches from the Tree Structure

Oracle9i Extensions to DML and DDL Statements

- Discussing Multitable Inserts
- Creating and Using External Tables Naming the Index and Using the CREATE INDEX Command at the Time of Creating Primary Key Constraint