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Procedural Language/ Structured Query Language PL/SQL

Duration: 5 Days – 40 Hours (8 Hours per Day * 5 Days)

Introduction to PL/SQL

- Understanding the benefits and structure of PL/SQL
- Understanding PL/SQL Blocks
- Generating output messages in PL/SQL

PL/SQL Basics

- Writing Anonymous PLSQL block
- Identifying the benefits of using the %TYPE, %ROWTYPE attribute
- Variables
- Various Data types
- Bind variables
- PLSQL operators
- Nested blocks
- Implicit data conversion
- SELECT INTO statement
- DBMS_OUTPUT.PUT_LINE
- Nested blocks and Variable Scopes

Using SQL Statements within a PL/SQL Block

- Using SQL Statements in PL/SQL
- Retrieving Data in PL/SQL with the SELECT statement
- Using Naming Conventions in DML Statements and data retrieval

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- Manipulating Data on the Server Using PL/SQL
- SQL Cursors
- Using SQL Cursor Attributes to Obtain Feedback on DML
- Saving and Discarding Transactions

Working with Composite Data Types

- SQL Cursors
- Composite Data Types of PL/SQL Records and Tables
- Using PL/SQL Records
- Inserting and Updating PL/SQL Records
- Using INDEX BY Tables
- Using Associative arrays
- Declaring and Using VArrays
- Using %ROWTYPE
- PLSQL Records
- PLSQL Table of Records
- INDEX BY Table
- INDEX BY Table of Records

Explicit Cursors and Implicit Cursors

- What is a cursor?
- Implicit and explicit cursors
- Creating cursors
- Using cursors in procedures
- OPEN..FETCH CLOSE construct
- The %NOTFOUND operator
- FOR UPDATE cursors

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Exceptions and Exception Handling

- What are Exceptions
- Need for handling exceptions
- Predefined exceptions
- User defined exceptions
- Non predefined exceptions
- Raising Exceptions
- Trapping Exceptions
- Exception propagation in nested calls
- The SQLCODE and SQLERRM in-built PL/SQL functions
- DBMS_UTILITY Package for debugging PL/SQL code

Creating Functions

- Overview of Functions
- Differentiating between anonymous blocks and subprograms
- Syntax of CREATE FUNCTION
- Benefits of user defined functions
- Executing user defined functions
- Restrictions on function calls
- Creating Functions
- Nested Functions
- Overloading Functions
- Nesting Functions and Procedures
- Functions in Select and DML Queries
- Dropping functions



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- Exceptions and Exception handling

Creating Procedures

- What are Procedures?
- Need for Procedures
- Syntax of CREATE PROCEDURE
- Parameter dispositions
- Formal Vs Actual Parameters
- Parameter passing methods
- Executing procedures
- Overloading Procedures
- Exceptions in procedures

Creating Triggers

- Syntax of Create Trigger
- Need for Trigger
- Trigger Basics
- Trigger Types
- Database Triggers
- DML Triggers Overview
- Statement Triggers
- Row Level Triggers
- INSTEAD OF Trigger
- SECURITY Triggers
- Trigger Management
- Oracle Internal Tables for Trigger Management

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Creating Packages

- What are packages?
- Need for packages
- Package Specification
- Package Body
- Private and Public components
- Calling package functions, procedures
- Referencing package constants and variables
- Overloading package subprograms
- Forward declaration of subprograms

Oracle Supplied Packages

- DBMS_SQL
- DBMS_OUTPUT
- DBMS_SCHEDULER
- UTL_FILE
- Creating and Managing Server Jobs
- Exporting data in files
- DBMS_METADATA
- EXECUTE IMMEDIATE statement

For Any Clarification please feel free to contact @ +91 9867328291.

Cheers,

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