



Course Name: Oracle PL/SQL Server Professional Certification Course

Course Overview:

The PLSQL Mastery course is designed to empower participants with in-depth knowledge and practical skills in Oracle's Procedural Language for SQL (PL/SQL). This comprehensive course covers essential PL/SQL concepts, from basic block structures to advanced topics like packages, triggers, and performance optimization. Whether you're a novice or an experienced SQL developer, this course will guide you through the intricacies of PL/SQL, providing hands-on experience and insights into best practices.

What You'll Learn?

Learn PL/SQL through comprehensive modules covering block structures, cursors, exception handling, subprograms, packages, triggers, objects, and advanced techniques, with a focus on performance optimization and interview preparation.

Internship Program:

In addition to the course, you will participate in a 3-month internship involving six live projects. Upon successful completion, you will receive an Internship Certificate.

Letter of Recommendation:

Upon successfully completing the program and internship, you will also receive a Letter of Recommendation (LOR).

Duration:

24 Hours (4 Weeks) + 3 Months (Internship Program)

Requirements:

Oracle SQL

Pre-requisite:

No pre-requisite



Curriculum

Module 1. Introduction

1. PL/SQL block structure
2. Data types and variables
3. Select statement in a PL/SQL block
4. DML statement in a PL/SQL block
5. Control structures

Module 2. Cursor

1. Cursors and its types
2. Implicit Cursors
3. Explicit Cursors
4. Parameterized Cursors
5. Advanced Cursors
6. Cursor Variables

Module 3. Exception Handling

1. Introduction
2. Why exception handling is needed
3. Handling Oracle predefined (named), non-predefined (unnamed) and user-defined exceptions
4. SQLERRM and SQLCODE
5. Pragma EXCEPTION_INIT
6. Propagation of exceptions, raised in different parts of a PL/SQL block (nested blocks) with examples

Module 4. Procedures and Functions

1. Need for subprograms
2. Creating Stored Procedures
3. RAISE_APPLICATION_ERROR

4. Parameter Modes – IN, OUT and IN OUT
5. Invoking stored procedures from SQL *Plus and PL/SQL Block
6. Examples of stored procedures and their invocation
7. Creating Stored Functions
8. Calling Stored Functions from different locations in DML and SELECT Queries
9. Local Procedures and Functions within a stored subprogram
10. Parameter passing mechanisms
11. Privileges related to functions and procedures
12. Dropping procedures and functions
13. Data dictionary views related to subprograms
14. USER_OBJECTS
15. USER_SOURCE
16. USER_PROCEDURES
17. USER_ERRORS

Module 5. Packages

1. What is a Package?
2. Advantages of a Package
3. Components of a Package
4. Creating Package
5. Package Public variable
6. Overloading methods in a package
7. Recompiling and dropping packages

Module 6. DML Triggers

1. Understand database triggers and their need
2. Differentiate between stored procedures and triggers



3. Identify the trigger types
4. Create statement and row level DML triggers
5. Use conditional predicates
6. Overcome Mutating table error

Module 7. Objects

1. Object type
2. Object table
3. Collection types
4. Bulk Bind concept
5. Bulk Binding
6. Bulk Collect
7. FORALL clause
8. Performance comparison with cursor for loop

Module 8. Others

1. REFCURSORS
2. BulkBindBulkCollect
3. Dynamic SQL
4. SQLLOADER
5. LOBs
6. UTL_FILE
7. Dos and Don'ts of PLSQL for better Performance

Module 9. Tips & Tricks of PL/SQL

1. Efficiency hacks and best practices
2. Performance optimization tips
3. Debugging techniques

4. Code organization and readability enhancements
5. Hidden gems in PL/SQL

Module 10. Interview of SQL

1. Preparation for PL/SQL-related interview questions
2. Commonly asked questions and how to approach them
3. Real-world scenarios and problem-solving
4. Tips for showcasing PL/SQL skills during interviews
5. 6 Projects of PL/SQL