Oracle PL/SQL

Certification Training

IntelliPaat

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About the Program

Our Oracle PL/SQL certification training course lets you learn the PL/SQL language for querying Oracle databases. We provide the best online training classes to help you learn the database tools, query language, subprograms, syntax query, basic and advanced DML, and scripting. In this program, you will also work on real-world industry projects.

About Intellipaat

Intellipaat is one of the leading e-learning training providers with more than 600,000 learners across 55+ countries. We are on a mission to democratize education as we believe that everyone has the right to quality education.

Our courses are delivered by subject matter experts from top MNCs, and our world-class pedagogy enables learners to quickly learn difficult topics in no time. Our 24/7 technical support and career services will help them jump-start their careers in their dream companies.

Key Features

24 HRS INSTRUCTOR-LED TRAINING

24 HRS SELF-PACED TRAINING

28 HRS REAL-TIME PROJECT WORK

LIFETIME ACCESS

24/7 TECHNICAL SUPPORT

INDUSTRY-RECOGNIZED CERTIFICATION

JOB ASSISTANCE THROUGH 80+ CORPORATE TIE-UPS

FLEXIBLE SCHEDULING

Career Support

SESSIONS WITH INDUSTRY MENTORS

Attend sessions from top industry experts and get guidance on how to boost your career growth

MOCK INTERVIEWS

Mock interviews to make you prepare for cracking interviews by top employers

GUARANTEED INTERVIEWS & JOB SUPPORT

Get interviewed by our 400+ hiring partners

RESUME PREPARATION

Get assistance in creating a world-class resume from our career services team

Why take up this course?

- 70% of companies say that analytics is integral to making decisions – IBM Study
- Big Data and Analytics sales will reach US$187 billion soon – IDC Research
- A PL/SQL Developer can earn US$92,000 in the United States – Indeed

Oracle PL/SQL is a high-performance transaction processing language that is deployed regardless of the operating system and the front-end tools used. It basically works on the server, and you can program it for complex business logic and rules to get the desired output. This PL/SQL bootcamp training gives you the desired technical know-how to learn PL/SQL and work on challenging industry requirements. You can apply for high-paying jobs upon the completion of this PL/SQL certification training.

Who should take up this course?

- Software Developers
- Database Administrators
- SQL and Analytics Professionals
- BI and Data Warehousing Professionals
- Those aspiring for a career in Oracle PL/SQL

Program Curriculum

Oracle PL/SQL Course Content

INTRODUCTION TO ORACLE SQL

What is RDBMS? Oracle versions, architecture of Oracle Database Server, and the installation of Oracle 12c

***Hands-on Exercise**: Install Oracle 12c*

USING DDL STATEMENTS TO CREATE & MANAGE TABLES

Categorize the main database objects, review the table structure, list the data types that are available for columns, create a simple table, explain how constraints are created at the time of table creation, and describe how schema objects work

***Hands-on Exercise**: Create a database table Person with two columns (Name and Age) with a constraint on age not greater than 100 and insert records using the insert query*

RETRIEVING DATA USING THE SQL SELECT STATEMENT

List the capabilities of SQL SELECT statements and execute a basic SELECT statement

***Hands-on Exercise**: Use a basic select statement to retrieve all the records in the Person table*

RESTRICTING & SORTING DATA

Limit the rows that are retrieved by a query, sort the rows that are retrieved by a query, and use the ampersand substitution to restrict and sort the output at the runtime

***Hands-on Exercise**: Write a select query to retrieve records where age is more than 60 years, write a select query to sort the records by name, write a select query to sort the records by age in the descending order, and then use the ampersand substitution to restrict and sort the output at the runtime*

GENERAL FUNCTIONS

General functions in SQL, working with any data type and handling Null values, using COALESCE() and the Null function, constructing and executing a SQL query that applies NUL, NUL1, NUL2 and COALESCE()

***Hands-on Exercise**: Use the NULL function to deal with null values in data*

USING SINGLE-ROW FUNCTIONS TO CUSTOMIZE THE OUTPUT

Describe various types of functions (character, number, date, string, etc.) available in SQL

***Hands-on Exercise**: Create a table with columns of types char, number, and date and use character, number, and date functions in SELECT statements*

LARGE OBJECT FUNCTIONS

Large object functions: BFILENAME, EMPTY_BLOB, and EMPTY_CLOB, aggregate or group functions: COUNT, COUNT(*), MIN, MAX, SUM, AVG, etc., the GROUP BY clause, and the HAVING clause

***Hands-on Exercise**: Count records based on a condition, use Count(*) to know the count of all records, and find Max, Min, Sum, and Avg*

OLAP FUNCTIONS

Various OLAP functions, cube, the model clause, and roll up and grouping functions

***Hands-on Exercise**: Working with OLAP commands: Cube, Roll up, etc.*

USING CONVERSION FUNCTIONS & CONDITIONAL EXPRESSIONS

Describe various types of conversion functions that are available in SQL and conditional expressions in a SELECT statement

***Hands-on Exercise**: Group data by using the GROUP BY clause and include or exclude grouped rows by using the HAVING clause*

DISPLAYING DATA FROM MULTIPLE TABLES

Joins, Inner Join, Outer Join, Left Join, Right Join, Equijoins, and Non-equijoins

***Hands-on Exercise**: Write SELECT statements to access data from more than one table using equijoins and non-equijoins, join a table with itself by using a self-join, view data that generally does not meet a join condition by using outer joins, and generate a Cartesian product of all rows from two or more tables*

USING SUBQUERIES TO SOLVE QUERIES

Define subqueries, describe the types of problems that the subqueries can solve, and list the types of subqueries

***Hands-on Exercise**: Write single-row and multiple-row subqueries*

USING THE SET OPERATORS

Describe set operators, UNION [ALL], INTERSECT, and MINUS operators

***Hands-on Exercise**: Use a set operator to combine multiple queries into a single query and control the order of rows returned*

MANIPULATING DATA USING SQL

Describe data manipulation language (DML) statement, insert, update, and delete statements, and control transactions

***Hands-on Exercise**: Insert rows into a table, update rows in a table, and delete rows from a table*

DATABASE TRANSACTIONS

What is a database transaction? Properties of a transaction (Atomic, Consistent, Isolated, Durable – ACID) and avoiding errors/faults in manipulating database records using a transaction

***Hands-on Exercise**: Begin a transaction, execute queries to update or insert or delete records; if no error, commit the transaction; otherwise, roll back the transaction, and end it*

CREATING OTHER SCHEMA OBJECTS

Views – simple and complex, sequences, indexes, and synonyms

***Hands-on Exercise**: Create simple and complex views, retrieve data from views, create, maintain, and use sequences, create and maintain indexes, and create private and public synonyms*

WRITING CURSOR & CONDITIONAL STATEMENTS

SQL cursor, SQL cursor attributes, controlling PL/SQL flow of executions, IF statement, simple IF statement, IF-THAN-ELSE statement execution flow, IF-THAN-ELSE statement,

IF-THAN-ELSIF statement, logic tables, Boolean conditions, iterative controlling loop statement, and nested loops and labels

***Hands-on Exercise**: Use the Boolean condition on a select query, use a logic table, and create nested loops and labels*

INTRODUCTION TO EXPLICIT CURSOR

Writing explicit cursors, about cursors, explicit cursor functions, controlling the explicit cursor, opening the cursor, fetching the data cursor, cursor and records, cursor for loop using subqueries

***Hands-on Exercise**: Write an explicit cursor, use the cursor function, and fetch the data cursor*

ADVANCED CONCEPTS OF EXPLICIT CURSOR

Advanced explicit cursor, the cursor with parameters, the For Update clause, the Where Current clause, and the cursor with subqueries

***Hands-on Exercise**: Use a cursor with a subquery, use the Where Current clause to retrieve data*

EXCEPTION HANDLING

Handling exception, handling exception with PL/SQL predefined exceptions, user-defined exceptions, non-predefined errors, the function for trapping exception, trapping user-defined exceptions, and raising application error procedure

***Hands-on Exercise**: Use predefined exception, write user-defined exception, generate and handle exceptions, and use a function for trapping an exception*

WRITING SUBPROGRAM, PROCEDURES, & PASSING PARAMETERS

Overview of subprograms, PL/SQL subprograms, and procedures, syntax for creating a procedure, creating a procedure with parameters, example of passing parameters, referencing a public variable from a standalone procedure, and declaring a subprogram

***Hands-on Exercise**: Create a parameterized procedure, pass parameters in a procedure call, and access a public variable from a standalone procedure*

CREATING PL/SQL PACKAGE

PL/SQL records, using the PL/SQL table method and example, creating the PL/SQL table, packages: objective, overview, components, developing and removing, and advantages, creating the package specification/example, declaring the public construct, public and private constructs, invoking the package construct, and guide lines for deploying packages

***Hands-on Exercise**: Create a package and deploy the created package*

ADVANCED PACKAGE CONCEPTS & FUNCTIONS

Overloading, using forward declaration, the one-time only procedure, package functions, the user-defined package function, persistent state of the package function, persistent state of the package variable, controlling the persistent state of the package cursor, purity end, using supplied package, using native dynamic SQL, execution flow, using the DBMS-SQL package, using the DBMS-DDL package, submitting jobs, and interacting with operating system links

***Hands-on Exercise**: Use the supplied package, use native dynamic SQL, use the DBMS-SQL package, use the DBMS-DDL package, and submit a job*

INTRODUCTION & WRITING TRIGGERS

Triggers: Definition, objectives, and its event types, application and database triggers, business application scenarios for implementing triggers, DML triggers, non-DML triggers, triggers event type and body, creating DML triggers using the create triggers statement, statement-level triggers vs low-level triggers, triggers firing sequence, single-row manipulation, creating a DML statement trigger, using old and new qualifiers instead of triggers, managing triggers using the alter and drop SQL statement, and testing triggers

***Hands-on Exercise**: Create a DML statement trigger, use old and new qualifiers, manage a trigger using the alter and drop SQL statement, and test the created triggers*

COMPOUND TRIGGERS

Viewing trigger information, user triggers, compound trigger and working with it, compound trigger structure for tables, timing-point sections of a table compound trigger, compound trigger structure for views, trigger restrictions on mutating tables, compound trigger restrictions, using a compound trigger to resolve the mutating table error, creating triggers on system events, LOGON and LOGOFF triggers examples, call statements in triggers, benefits of database-event triggers, and the system privileges required to manage triggers

***Hands-on Exercise**: View a trigger's information, use a compound trigger structure for views, use a compound trigger to resolve the mutating table error, create triggers on system events, use LOGON and LOGOFF triggers, and use call statements in triggers*

WORKING WITH DYNAMIC SQL

Dynamic SQL objectives, execution flow of SQL statements, dynamic SQL with a DDL statement and an example, working with dynamic SQL, native dynamic SQL (NDS), using the executive immediate statement and an example, using native dynamic SQL to compile PL/SQL code, using DBMS-SQL with a DML statement, and using the DBMS-SQL package subprograms and the parameterized DML statement

***Hands-on Exercise**: Use the executive immediate statement, use native dynamic SQL to compile PL/SQL code, create DBMS-SQL with a DML statement, and create a DBMS-SQL package subprogram*

ADVANCED-LEVEL SCRIPTING

Managing dependencies, objectives, overview of schema object dependencies, direct local dependencies, querying direct object dependencies, displaying direct and indirect dependencies, fine-grained dependency management, changes to synonym dependencies, maintaining valid PL/SQL program units and views, object re-validation, concepts of remote dependencies, setting the remote dependencies mode parameter, recompiling the PL/SQL program unit, packages and dependencies, successful and unsuccessful recompilation, and recompiling procedures

***Hands-on Exercise**: Query direct object dependencies, display direct and indirect dependencies, set the remote dependencies mode parameter, recompile the PL/SQL program unit, edit a procedure, and recompile it*

Project Work

Oracle PL/SQL Projects Covered

Performing DML Operations on a Database

This project will help you learn about the Data Manipulation Language (DML). You will also get to be familiar with the DML triggers, which are special types of stored procedures that are automatically executed when a DML operation is performed.

Streamlining Banking Data with PL/SQL

In this project, you need to create a model to capture the details of a bank and its branches and store customer information based on geography. You will be required to create a model and validate it for all use cases and tables with required constraints, insert the appropriate data, implement joins, and get the required results.

Creating a Detailed Patient Report

You will be analyzing the conditions of various patients based on disparate datasets. In this PL/SQL project, you will be creating tables and columns based on various entities and inserting sample data. You will learn to work with PL/SQL for coding program blocks, procedures for IF ELSE conditions, and PL/SQL functions and packages.

Working on a University Dataset

In this project, you will be inserting data in tables, joining tables, querying the data for various conditions, and prepping the data for analysis. You will be asked to join three tables and analyze the data. Finally, you will create a detailed report on the teaching structure and find out ways to improve it.

Certification

After the completion of the course, you will get a certificate from Intellipaat.

Success Stories

Sampson Basoah

The Intellipaat team helped me in selecting the perfect course that suits my profile. The whole course was practically oriented, and the trainers were always ready to answer any question. I found this course to be impactful. Thank you.

John Wilson

This is probably one of the best courses I have ever done. I think the course is doing an excellent job in giving a comprehensive understanding of each topic.

Monika Dumitrache

I enjoyed every session conducted by the trainer. He was very active and kept the class lively. His explanations and hold on the subject were outstanding. The support was excellent as well. Also, the training material was vast, making sure to cover all possible topics related to SQL and PL/SQL.

Prakash Dhurde

It was only because of Intellipaat that even a beginner like me could confidently appear for an interview for getting into the best job profile. The online training class was completely worth the investment. Thank you!

Kevin K Wada

Thank you very much for your top-class service. A special mention should be made for your patience in listening to my queries and giving me a solution, which was exactly what I was looking for. I am giving you a 10 on 10!

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