

## Certification Exam Prep Seminar: Program with PL/SQL

**Duration:** 1 Day

### What you will learn

This video seminar – Certification Exam Prep Seminar: Program with PL/SQL - will help you significantly in your preparation to take either of the following Oracle PL/SQL certification exams:

Program with PL/SQL (1Z0-147)

Oracle Database 11g: Program with PL/SQL (1Z0-144)

Become ready to take and pass one of the required exams for Oracle PL/SQL Developer Certified Associate (OCA) and/or Oracle Advanced PL/SQL Developer Certified Professional (OCP) level certifications with this comprehensive Exam Preparation Seminar. Led by one of our Oracle PL/SQL expert instructors, this fast-paced video-based seminar will help increase your confidence by providing you with exclusive tips and strategies to prepare you to take these certification exams.

This Exam Preparation Seminar is intended to help programmers with a solid foundation in Oracle PL/SQL by providing a thorough review of the exam objectives and helps students understand the breadth of topics and skills necessary to be successful in passing either the “Program with PL/SQL” (1Z0-147) and/or “Oracle Database 11g: Program with PL/SQL” (1Z0-144) certification exams.

The seminar may be accessed for repeated review as needed during subscription term. Completion of this seminar does not guarantee exam performance. Exam Prep Seminars do not include: an Oracle University eKit, expert video, labs, student environment, simulations, or student Q&A. Please note that this seminar is for exam review purposes only and does not meet the Hands-on Course training requirement (if applicable to your certification track).

### Audience

Application Developers

Developer

Forms Developer

PL/SQL Developer

Reports Developer

### Course Objectives

Learn from one of Oracle University's top instructors.

Review key technologies and certification concepts related to Program with PL/SQL.

Prepare for your Oracle certification exam.

Get information that will help you complete your preparation and study.

Receive tips and information that will help you on the test.

Understand the depth and breadth of the Program with PL/SQL certification exams.

## Course Topics

### Introduction to PL/SQL

Explain the need for PL/SQL

Explain the benefits of PL/SQL

Identify the different types of PL/SQL blocks

Output messages in PL/SQL

### Declaring PL/SQL Variables

Recognize valid and invalid identifiers

List the uses of variables, declare and initialize variables, use bind variables

List and describe various data types using the %TYPE attribute

### Writing Executable Statements

Identify lexical units in a PL/SQL block

Use built-in SQL functions in PL/SQL and sequences in PL/SQL expressions

Describe when implicit conversions take place and when explicit conversions have to be dealt with

Write nested blocks and qualify variables with labels

Write readable code with appropriate indentation

### Interacting with the Oracle Database Server

Create PL/SQL executable blocks using DML and transaction control statements

Make use of the INTO clause to hold the values returned by a SQL statement

### Writing Control Structures

Identify the uses and types of control structures (IF, CASE statements and expressions)

Construct and identify loop statements

Apply guidelines when using conditional control structures

### Working with Composite Data Types

Create user-defined PL/SQL records

Create a record with the %ROWTYPE attribute

Create an INDEX BY table and INDEX BY table of records

Describe the differences among records, tables, and tables of records

### Using Explicit Cursors

Distinguish between usage of implicit and explicit cursors, use SQL cursor attributes

Declare and control explicit cursors, use simple loops and cursor FOR loops to fetch data

Declare and use cursors with parameters

Lock rows with the FOR UPDATE clause and reference the current row with the WHERE CURRENT OF clause

### Handling Exceptions

Define PL/SQL exceptions

Recognize unhandled exceptions

Handle different types of exceptions (pre-defined exceptions, non-predefined)

Propagate exceptions in nested blocks and call applications

### Creating Procedures

Differentiate between anonymous blocks and subprograms, use a modularized and layered subprogram design, and identifier  
Create a simple procedure and invoke it from an anonymous block  
Work with procedures  
Handle exceptions in procedures, remove a procedure, and display a procedure's information

### **Creating Functions**

Differentiate between a procedure and a function  
Describe the uses of functions  
Work with functions (create, invoke and remove functions)

### **Creating Packages**

Identify the benefits and the components of packages  
Work with packages (create package specification and body, invoke package subprograms, remove a package and display)

### **Working with Packages**

Overload package subprograms, use forward declarations  
Create an initialization block in a package body  
Manage persistent package data states for the life of a session and use PL/SQL tables and records in packages

### **Using Oracle-Supplied Packages in Application Development**

Describe how the DBMS\_OUTPUT package works  
Use UTL\_FILE to direct output to operating system files  
Describe the main features of UTL\_MAIL

### **Using Dynamic SQL**

Describe the execution flow of SQL statements  
Use Native Dynamic SQL (NDS)  
Use the DBMS\_SQL package

### **Design Considerations for PL/SQL Code**

Create standard constants and exceptions  
Write and call local subprograms  
Control the run-time privileges of a subprogram  
Perform autonomous transactions  
Use NOCOPY hint, PARALLEL ENABLE hint and DETERMINISTIC clause  
Use the cross-session PL/SQL function result cache  
Use bulk binding and the RETURNING clause with DML

### **Creating Triggers**

Describe different types of triggers and their uses  
Create database triggers  
Manage triggers

### **Creating Compound, DDL, and Event Database Triggers**

Describe compound triggers and mutating tables, display information about triggers  
Create triggers on DDL statements  
Create triggers on system events

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

Describe the new PL/SQL compiler and features  
Use the new PL/SQL compiler initialization parameters  
Use the new PL/SQL compile time warnings

## **Managing PL/SQL Code**

Describe and use conditional compilation

Hide PL/SQL source code using dynamic obfuscation and the Wrap utility

## **Managing Dependencies**

Track and manage procedural dependencies