

## Oracle Database PL/SQL (code: C-ORACLE-PL-SQL)

### Overview

PL/SQL is a language which complements SQL with constructs related to procedural and modular programming. Its knowledge facilitates the creation of complex reports, allows to complement data in the database with business logic, and is essential for creating applications in Oracle Forms, APEX and related technologies.

Knowledge of PL/SQL is essential for programmers who wish to take advantage of all the capabilities of the Oracle database.

### Ask for details

Phone +44 203 608 6289

info@alx.training

### Duration

3 days

### Agenda

1. Introduction to PL/SQL programming:
  - lexical units and conventions,
  - anonymous blocks and programs,
  - executable block and declaration block,
  - running anonymous blocks and programs.
2. Defining and handling variables:
  - declaring and changing the values of variables,
  - use of standard data types in variables,
  - %TYPE and %ROWTYPE attributes,
  - working with compound types, custom compound types,
  - records, tables and record tables,
  - constants,
3. Structured programming:
  - control instructions: conditions, loops.
4. the INTO clause
  - use of SQL functions,
  - exception handling, typical built-in exceptions,
  - creating your own exceptions,
  - labels, name visibility ranges, nested blocks.
5. Cursors:
  - implicit and explicit cursors,
  - parameterized cursors,
  - row locking (FOR UPDATE clause),
  - WHERE CURRENT OF clause
6. Programming:
  - stored procedures,
  - creating functions with their use in SQL,
  - parameters in programs,
  - ways of calling programs.
7. Packages:
  - structure of a package and dependencies
  - running packages,
  - polymorphism in packages (overloading),
  - embedded packages.
8. Triggers:

- DML triggers at command and line level,
  - DML triggers on views,
  - DDL command triggers,
  - triggers on system events.
9. Dynamic SQL:
- the need to use dynamic SQL, contraindications,
  - native dynamic SQL,
  - DBMS\_SQL package.

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## Target audience and prerequisites

There are no prerequisites for this course.

## Certificates

Course participants receive completion certificates signed by ALX.

## Locations

- Warsaw (English) – Jasna 14/16A
- Online (English) – your home, office or wherever you want
- any other location (London, UK, EU) on request

## Price

990 EUR

The price includes:

- course materials,
- snacks, coffee, tea and soft drinks,
- course completion certificate,
- one-time consultation with the instructor after course completion.