Szkolenie: Oracle
Oracle Database: Develop PL/SQL Program Units

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<th>FORMA SZKOLENIA</th>
<th>MATERIAŁY SZKOLENIOWE</th>
<th>CENA</th>
<th>CZAS TRWANIA</th>
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<td>Tradycjne</td>
<td>4425 PLN NETTO*</td>
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<td>Stacjonarne</td>
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* (+VAT zgodnie z obowiązującą stawką w dniu wystawienia faktury)

LOKALIZACJE

Kraków - ul. Tatarska 5, II piętro, godz. 9:00 - 16:00
Warszawa - ul. Bielska 17, godz. 9:00 - 16:00

Cel szkolenia:

This Oracle Database: Develop PL/SQL Program Units course is designed for developers with basic PL/SQL and SQL language skills. You will learn to develop, execute and manage PL/SQL stored program units, which include: procedures, functions, packages and database triggers.

Plan szkolenia:

- Introduction
  - Course Objectives, Course Agenda and Appendixes Used in this Course
  - Describe the full Human Resources (HR) Schema
  - Review the online Oracle Database 12c SQL and PL/SQL documentation and the additional available resources
  - List the PL/SQL development environments Available in this course
  - Use the SQL Worksheet
  - Execute SQL Statements
  - Work With Script Files
  - Create and Execute Anonymous Blocks
- Creating Stored Procedures
  - Describe PL/SQL blocks and subprograms
  - Describe the uses and benefits of procedures
  - Create, call, and remove procedures
Use formal and actual parameters
Identify the available parameter-passing modes
Pass parameters using the positional, named, or combination techniques
Handle exceptions in procedures
View the procedure information

Creating Functions and Debugging Subprograms
Creating Stored Functions
The Difference Between Procedures and Functions
Developing Functions
Creating and Executing and Removing Functions
Identifying the Advantages of Using Stored Functions in SQL Statements
Using User-Defined Functions in SQL Statements
Using a PL/SQL Function in the SQL WITH Clause
Restrictions When Calling Functions from SQL statements

Creating Packages
Using PL/SQL Packages
The Components of a PL/SQL Package
The Visibility of a Package’s Components
Developing a PL/SQL Package
Creating the Package Specification and Package Body
Invoking the Package Constructs
Creating and Using Bodiless Packages
Removing a Package

Working With Packages
Overloading Subprograms
Using Forward Declarations to Solve Illegal Procedure Reference
Initializing Packages
Using Package Functions in SQL and Restrictions
Controlling Side Effects of PL/SQL Subprograms
Persistent State of Packages
Persistent State of Package Variables and Cursors
Using PL/SQL Tables of Records in Packages

Using Oracle-Supplied Packages in Application Development
Using Oracle-Supplied Packages
Examples of Some of the Oracle-Supplied Packages
How Does the DBMS_OUTPUT Package Work?
- Using the UTL_FILE Package to Interact With Operating System Files
- Using the UTL_MAIL Package
- Using Dynamic SQL
  - The Execution Flow of SQL
  - Working With Dynamic SQL
  - When Do You Need Dynamic SQL?
  - Using Native Dynamic SQL (NDS)
  - Declaring Cursor Variables
  - Executing a PL/SQL Block Dynamically
  - Using Native Dynamic SQL to Compile PL/SQL Code
- Design Considerations for PL/SQL Code
  - Standardize constants with a constant package
  - Standardize exceptions with an exception package
  - Write PL/SQL code that uses local subprograms
  - Grant Roles to PL/SQL Packages and Standalone Stored Subprograms
  - Use the NOCOPY compiler hint to pass parameters by reference
  - Use the PARALLEL ENABLE hint for optimization
  - Use the AUTONOMOUS TRANSACTION pragma to run independent transactions within a single transaction
  - Describe the differences between invoker rights and definer rights
- Creating Triggers
  - Describe different types of triggers
  - Describe database triggers and their use
  - Create database triggers
  - Describe database trigger firing rules
  - Remove database triggers
- Creating Compound, DDL, and Event Database Triggers
  - Describe compound triggers
  - Describe mutating tables
  - Create triggers on DDL statements
  - Create triggers on system events
  - Display information about triggers
- Using PL/SQL compiler
  - Using the PL/SQL Compiler
  - Using the Initialization Parameters for PL/SQL Compilation
  - Using the PL/SQL Compile Time Warnings
  - Viewing the Current Setting of PLSQL_WARNINGS
  - Viewing the Compiler Warnings: Using SQL Developer, SQL*Plus, or the Data Dictionary
Views
  ○ Guidelines for Using PLSQL_WARNINGS
  ○ Managing Dependencies
    ○ Describe dependent and referenced objects
    ○ Track procedural dependencies with dictionary views
    ○ Predict the effect of changing a database object upon stored procedures and functions
    ○ Manage local and remote procedural dependencies

Wymagania:

Wymagane prerekwizyty:
  ○ Basic Knowledge of PL/SQL
  ○ Familiarity with programming languages
  ○ Oracle Database 12c: Introduction to SQL Ed 1.1
  ○ Oracle Database: PL/SQL Fundamentals

Sugerowane prerekwizyty:
  ○ Oracle SQL Tuning for Developers Workshop

Poziom trudności

Certyfikaty:

Uczestnicy szkoleń otrzymują zaświadczenia o ukończeniu kursu sygnowane przez firmę Oracle.

Prowadzący:

Autoryzowany wykładowca Oracle.