# Oracle Database 10g PL/SQL Fundamentals

## **Course information**

Days: 2

Total lessons: 9

Suggested Prerequisites:

- Oracle Database 10g: SQL Fundamentals I
- Previous programming experience

#### Training includes:

- Experienced trainer(s)
- Pre-test and Post-test
- Practices and solutions

### Public price:

9,000 baht(THB): 1 person

#### In-house price:

- 27,000 baht(THB): Economic Class: 1 5 people
- 38,000 baht(THB): Small Class: 6 10 people
- 54,000 baht(THB): Middle Class: 11 20 people
- 70,000 baht(THB): Large Class: 21 30 people

All prices exclude VAT 7 %

## **Course details**

## Day 1

- Introduction
- Lesson 1: Introduction to PL/SQL
- Lesson 2 : Declaring PL/SQL Variables
- Lesson 3 : Writing Executable Statements
- Lesson 4: Interacting with the Oracle Server
- Lesson 5 : Writing Control Structures

#### Day 2

- Lesson 6: Working with Composite Data Types
- Lesson 7 : Using Explicit Cursors
- Lesson 8 : Handling Exceptions
- Lesson 9: Creating Stored Procedures and Functions

#### Lesson details

#### Lesson 1: Introduction to PL/SQL

- Explain the need for PL/SQL
- Explain the benefits of PL/SQL
- · Identify the different types of PL/SQL blocks
- Use iSQL\*Plus as a development environment for PL/SQL
- Output messages in PL/SQL



## **Lesson 2 : Declaring PL/SQL Variables**

- Identify valid and invalid identifiers
- List the uses of variables
- Declare and initialize variables
- List and describe various data types
- Identify the benefits of using the %TYPE attribute
- Declare, use, and print bind variables

### **Lesson 3: Writing Executable Statements**

- Identify lexical units in a PL/SQL block
- Use built-in SQL functions in PL/SQL
- 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 indentations

## **Lesson 4: Interacting with the Oracle Server**

- Determine which SQL statements can be directly included in a PL/SQL executable block
- Manipulate data with DML statements in PL/SQL
- Use transaction control statements in PL/SQL
- Make use of the INTO clause to hold the values returned by a SQL statement
- Differentiate between implicit cursors and explicit cursors
- Use SQL cursor attributes

### **Lesson 5 : Writing Control Structures**

- Identify the uses and types of control structures
- Construct an IF statement
- Use CASE statements and CASE expressions
- Construct and identify different loop statements
- Use guidelines when using conditional control structures

#### **Lesson 6: Working with Composite Data Types**

- Create user-defined PL/SQL records
- Create a record with the %ROWTYPE attribute
- Create an INDEX BY table
- Create an INDEX BY table of records
- Describe the differences among records, tables, and tables of records

#### **Lesson 7: Using Explicit Cursors**

- Distinguish between implicit and explicit cursors
- Discuss the reasons for using explicit cursors
- 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
- Reference the current row with the WHERE CURRENT clause



## **Lesson 8: Handling Exceptions**

- Define PL/SQL exceptions
- Recognize unhandled exceptions
- List and use different types of PL/SQL exception handlers
- Trap unanticipated errors
- Describe the effect of exception propagation in nested blocks
- Customize PL/SQL exception messages

## **Lesson 9 : Creating Stored Procedures and Functions**

- Differentiate between anonymous blocks and subprograms
- Create a simple procedure and invoke it from an anonymous block
- Create a simple function
- Create a simple function that accepts a parameter
- Differentiate between procedures and functions

For more information please contact : VT Technology Co.,Ltd. Tel +66 0 2594 5185 contact@vttech.co.th

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