Oracle Database 10g PL/SQL Program Units

Course information

Days : 3
Total lessons : 12
Suggested Prerequisites :

- Oracle Database 10g: PL/SQL Fundamentals
- Previous programming experience

Training includes :

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

Public price :

- 12,000 baht(THB) : 1 person

In-house price :

- 36,000 baht (THB) : Economic Class : 1 – 5 people
- 67,000 baht(THB) : Small Class : 6 - 10 people
- 86,000 baht(THB) : Middle Class : 11 - 20 people
- 105,000 baht(THB) : Large Class : 21 - 30 people

All prices exclude VAT 7 %

Course details

Day 1

Introduction
Lesson 1 : Creating Stored Procedures
Lesson 2 : Creating Stored Functions
Lesson 3 : Creating Packages
Lesson 4 : Using More Package Concepts

Day 2

Lesson 5 : Using Oracle-Supplied Packages in Application Development
Lesson 6 : Dynamic SQL and Metadata
Lesson 7 : Design Considerations for PL/SQL Code
Lesson 8 : Managing Dependencies

Day 3

Lesson 9 : Manipulating Large Objects
Lesson 10 : Creating Triggers
Lesson 11 : Applications for Triggers
Lesson 12 : Understanding and Influencing the PL/SQL Compiler

Lesson details

Lesson 1 : Creating Stored Procedures

- Describe and create a stored procedure
- Create procedures with parameters
- Differentiate between formal and actual parameters
- Use different parameter-passing modes
- Invoke a procedure
- Handle exceptions in procedures
- Remove a procedure

Lesson 2 : Creating Stored Functions

- Describe the uses of functions
- Create stored functions
- Invoke a function
- Remove a function
- Differentiate between a procedure and a function

Lesson 3 : Creating Packages

- Describe packages and list their components
- Create a package to group together related variables, cursors, constants, exceptions, procedures, and functions
- Designate a package construct as either public or private
- Invoke a package construct
- Describe the use of a bodiless package

Lesson 4 : Using More Package Concepts

- Overload package procedures and functions
- Use forward declarations
- Create an initialization block in a package body
- Manage persistent package data states for the life of a session
- Use PL/SQL tables and records in packages
- Wrap source code stored in the data dictionary so that it is not readable

Lesson 5 : Using Oracle-Supplied Packages in Application Development

- Describe how the DBMS_OUTPUT package works
- Use UTL_FILE to direct output to operating system files
- Use the HTP package to generate a simple Web page
- Describe the main features of UTL_MAIL
- Call the DBMS_SCHEDULER package to schedule PL/SQL code for execution

Lesson 6 : Dynamic SQL and Metadata

- Describe the execution flow of SQL statements
- Build and execute SQL statements dynamically using Native Dynamic SQL (that is, with EXECUTE IMMEDIATE statements)
- Compare Native Dynamic SQL with the DBMS_SQL package approach
- Use the DBMS_METADATA package to obtain metadata from the data dictionary as XML or creation DDL that can be used to re-create the objects

Lesson 7 : Design Considerations for PL/SQL Code

- Use package specifications to create standard constants and exceptions
- Write and call local subprograms
- Set the AUTHID directive to control the run-time privileges of a subprogram
- Execute subprograms to perform autonomous transactions
- Use bulk binding and the RETURNING clause with DML
- Pass parameters by reference using a NOCOPY hint
- Use the PARALLEL ENABLE hint for optimization

Lesson 8 : Managing Dependencies

- Track procedural dependencies
- Predict the effect of changing a database object on stored procedures and functions
- Manage procedural dependencies

Lesson 9 : Manipulating Large Objects

- ADDM
- Compare and contrast LONG and LOB (large object) data types
- Create and maintain LOB data types
- Differentiate between internal and external LOBs
- Use the DBMS_LOB PL/SQL package
- Describe the use of temporary LOBs

Lesson 10 : Creating Triggers

- Describe the different types of triggers
- Describe database triggers and their uses
- Create database triggers
- Describe database trigger-firing rules
- Remove database triggers

Lesson 11 : Applications for Triggers

- Create additional database triggers
- Explain the rules governing triggers
- Implement triggers

Lesson 12 : Understanding and Influencing the PL/SQL Compiler

- Describe native and interpreted compilations
- List the features of native compilation
- Switch between native and interpreted compilations
- Set parameters that influence PL/SQL compilation
- Query data dictionary views on how PL/SQL code is compiled
- Use the compiler warning mechanism and the DBMS_WARNING package to implement compiler warnings

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