

Database Programming with PL/SQL

Fundamentals

- Introduction to PL/SQL
- Benefits of PL/SQL
- Creating PL/SQL Blocks

Defining Variables and Datatypes

- Using Variables in PL/SQL
- Recognizing PL/SQL Lexical Units
- Recognizing Data Types
- Using Scalar Data Types
- Writing PL/SQL Executable Statements
- Nested Blocks and Variable Scope
- Good Programming Practices

Using SQL in PL/SQL

- Review of SQL DML
- Retrieving Data in PL/SQL
- Manipulating Data in PL/SQL
- Using Transaction Control Statements

Program Structures to Control Execution Flow

- Conditional Control: IF Statements
- Conditional Control: CASE Statements
- Iterative Control: Basic Loops
- Iterative Control: WHILE and FOR Loops
- Iterative Control: Nested Loops

Using Composite Datatypes

- User-Defined Records
- Indexing Tables of Records

Using Cursors and Parameters

- Introduction to Explicit Cursors
- Using Explicit Cursor Attributes
- Cursor FOR Loops
- Cursors with Parameters
- Using Cursors for UPDATE
- Using Multiple Cursors

Exception Handling

- Handling Exceptions
- Trapping Oracle Server Exceptions
- Trapping User-Defined Exceptions
- Recognizing the Scope of Exceptions

Using and Managing Procedures

- Creating Procedures
- Using Parameters in Procedures
- Passing Parameters

Using and Managing Functions

- Creating Functions
- Using Functions in SQL Statements
- Review of the Data Dictionary
- Managing Procedures and Functions
- Review of Object Privileges
- Using Invoker's Rights and Autonomous Transactions

Using and Managing Packages

- Creating Packages
- Managing Package Concepts
- Advanced Package Concepts

Getting the Best out of Packages

- Persistent State of Package Variables
- Using Oracle-Supplied Packages

Improving PL/SQL Performance

- Using Dynamic SQL
- Improving PL/SQL Performance

Using and Managing Triggers

- Introduction To Triggers
- Creating DML Triggers, Part I
- Creating DML Triggers, Part II
- Creating DDL and Database Event Triggers
- Managing Triggers

Recognizing and Managing Dependencies

- Introduction to Dependencies
- Understanding Remote Dependencies

Using the PL/SQL Compiler

- Using PL/SQL Initialization Parameters
- Displaying Compiler Warning Messages
- Using Conditional Compilation
- Hiding Your Source Code