

ORACLE 12c PL/SQL PROGRAMMING

Descripción General

Curso orientado a usuarios de servidor de bases de datos Oracle que requiere aprender y dominar los procesos de instalación, configuración, puesta a punto, respaldo y recuperación de cluster de servidores Oracle

Objetivo

Que el estudiante adquiera los conocimientos y habilidades necesaria para instalar, configurar y mantener un cluster de servidores Oracle con la tecnología RAC

Duración

80 Horas

10 días Lunes a Viernes

Requisitos

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PART 1 Oracle PL/SQL

1. 1 Oracle PL/SQL Development Overview

1.1. PL/SQL's History and Background

1.2. Oracle Development Architecture

1.3. The Database

1.4. The PL/SQL Language

1.5. The Oracle Processing Architecture

1.6. Two-Tier Model

1.7. N-Tier Model

1. New Feaures

1.1. New SQL Features

1.2. Data Catalog DIRECTORY Qualifies a LIBRARY Object

1.3. Define Tables with Valid-Time (VT) Support

1.4. Enhanced Oracle Native LEFT OUTER JOIN Syntax

1.5. Default Values for Columns Based on Sequences

1.6. Default Values for Explicit Null Insertion

1.7. Identity Columns

1.8. Increased Size Limits od String and Raw Types

1.9. Pass Results from SQL Statements to External Programs

1.10. Native SQL Support for Query Row Limits and Offsets

1.11. Oracle Databases Driver for MySQL Applications

1.12. SQL CROSS APPLY, OUTER APPLY, and LATERAL

1.13. Bequeath CURRENT_USER Views

1.14. New PL/SQL Features

1.15. Caching of Invoker Righ Functions

1.16. Ability to White List PL/SQL Program Unit Caller

1.17. Native Client API Support for PL/SQL Types

1.18. New PL/SQL Package UTL_CALL_STACK

1.19. DBMS_UTILITY Adds EXPAND_SQL_TEXT Subprogram

1.20. DBMS_SQL Adds a New Formal Schema to the PARSE Procedure

1.21. PL/SQL Functions in SQL WITH Clause

1.22. PL/SQL-Specific Data Types Allowed in SQL

1.23. Implicir REF CURSOR Parameter Binding

1.24. Supporting Scripts

1. PL/SQL Basics

1.1. Block Structure

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- 1.2. Execution Block
 - 1.3. Basic Block Structure
 - 1.4. Declaration Block
 - 1.5. Exception Block
 - 1.6. Behavior of Variables in Blocks
 - 1.7. Anonymous Blocks
 - 1.8. Nested Anonymous Blocks
 - 1.9. Local Named Blocks
 - 1.10. Stored Named Blocks
 - 1.11. Basic Scalar and Composite Data Types
 - 1.12. Scalar Data Types
 - 1.13. Attribute and Table Anchoring
 - 1.14. Composite Data Type
 - 1.15. Control Structures
 - 1.16. Conditional Structures
 - 1.17. Iterative Structures
 - 1.18. Exceptions
 - 1.19. User-Defined Exceptions
 - 1.20. Dynamic User-Defined Exceptions
 - 1.21. Bulk Operations
 - 1.22. Functions
 - 1.23. Procedures
 - 1.24. Packages
 - 1.25. Functions
 - 1.26. Procedures
 - 1.27. Packages
 - 1.28. Transaction Scope
 - 1.29. Single Transaction Scope
 - 1.30. Multiple Transaction Scope
 - 1.31. Database Triggers
1. 4 Language Fundamentals
- 1.1. Lexical Units
 - 1.2. Delimiters
 - 1.3. Identifiers
 - 1.4. Variables and Data Types
 - 1.5. Variable Data Type
 - 1.6. Scalar Data Types
 - 1.7. Large Objects (LOBs)
 - 1.8. CompositeData Types
 - 1.9. System Reference Cursors

1. 5 Control Structures

1.1. Conditional Statements

1.2. IF Statements

1.3. CASE Statements

1.4. Conditionals Compilation Statements

1.5. Iterative Statments

1.6. Simple Loop Statements

1.7. FOR Loop Statements

1.8. WHILE Loop Statements

1.9. Cursor Structures

1.10. Implicit Cursors

1.11. Explicit Cursors

1.12. Bulk Statements

1.13. BULK COLLECT INTO Statements

1.14. FORALL Statements

1.15. Supporting Scripts

1. 6 Collections

1.1. Introduction to Collections

1.2. Object Types: Varray and Table Collections

1.3. Varray Collections

1.4. Table Collections

1.5. Associative Collection API

1.6. COUNT Method

1.7. DELETE Method

1.8. EXISTS Method

1.9. EXTEND Method

1.10. FIRST Method

1.11. LAST Method

1.12. LIMIT Method

1.13. NEXT Method

1.14. PRIOR Method

1.15. TRIM Method

1.16. Supporting Scripts

1. 7 Error Management

1.1. Exception Types and Scope

1.2. Compiltions Erros

1.3. Runtime Errors

1.4. Exception Management Built-in Functions

1.5. User-Defined Exceptions

1.6. Declaring User-Defined Exceptions

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- 1.7. Dynamic User-Defined Exceptions
- 1.8. Exception Stack Functions
- 1.9. Supporting Scripts
- 1.10. PART II PL/SQL Programming
- 1. 8 Functions and Procedures
 - 1.1. Function and Procedure Architecture
 - 1.2. Transaction Scope
 - 1.3. Calling Subroutines
 - 1.4. Positional Notation
 - 1.5. Named Notation
 - 1.6. Mixed Notation
 - 1.7. Exclusionary Notation
 - 1.8. SQL Call Notation
 - 1.9. Functions
 - 1.10. Functions Model Choices
 - 1.11. Creation Options
 - 1.12. Pass-by Value Functions
 - 1.13. Pass-by Reference Functions
 - 1.14. Procedures
 - 1.15. Pass-by Value Procedures
 - 1.16. Pass-by Reference Procedures
 - 1.17. Supporting Scripts
- 1. 9 Packages
 - 1.1. Package Architecture
 - 1.2. Package Specification
 - 1.3. Prototype Features
 - 1.4. Serially Reusable Precompiler Directive
 - 1.5. Variables
 - 1.6. Types
 - 1.7. Components: Functions and Procedures
 - 1.8. Package Body
 - 1.9. Prototype Features
 - 1.10. Variables
 - 1.11. Types
 - 1.12. Components: Functions and Procedures
 - 1.13. Definer vd. Invoker Rights Mechanics
 - 1.14. Managing Packages in the Database Catalog
 - 1.15. Finding, Validating, and Describing Packages
 - 1.16. Checking Dependencies



- 1.17. Comparing Validations Methods: Timestamp vs. Signature
- 1. 10 Large Objects
 - 1.1. Working with Internally Stored LOB Types
 - 1.2. LOB Assignments Under 32K
 - 1.3. LOB Assignments Over 32K
 - 1.4. Reading Files into Internally Stored Columns
 - 1.5. Reading Local Files into CLOB or NCLOB
 - 1.6. Columns
 - 1.7. Reading Local Files into BLOB Columns
 - 1.8. Working with LOBs Through Web Pages
 - 1.9. Working with Binary Files (BFILEs)
 - 1.10. Creating and Using Virtual Directories
 - 1.11. Reading Canonical Path Names and Filenames
 - 1.12. Understanding the DBMS_LOB Package
 - 1.13. Package Constants
 - 1.14. Package Exceptions
 - 1.15. Opening and Closing Methods
 - 1.16. Manipulation Methods
 - 1.17. Introspection Methods
- 1.18. BFILE Methods
- 1.19. Temporary LOB Methods
- 1.20. Supporting Scripts
- 1.21. The LONG to CLOB Script
- 1.22. Manage LOBs from the File System
- 1.23. Manage CLOB and BLOB LOBs Through the Web
- 1.24. Manage BFILE LOBs Through the Web
- 1. 11 Object Type
 - 1.1. Object Basics
 - 1.2. Declaring Objects Types
 - 1.3. Implementing Object Bodies
 - 1.4. White Listing Object Types
 - 1.5. Getters and Setters
 - 1.6. Static Member Methods
 - 1.7. Comparing Objects
 - 1.8. Inheritance and Polymorphism
 - 1.9. Declaring Subclasses
 - 1.10. Implementing Subclasses
 - 1.11. Type Evolution
 - 1.12. Implementing Object Type Collections

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- 1.13. Declaring Object Type Collections
- 1.14. Implementing Object Type Collections
- 1.15. Supporting Scripts
- 1. 12 Triggers
 - 1.1. Introduction to Triggers
 - 1.2. Database Trigger Architecture
 - 1.3. Data Definition Language Triggers
 - 1.4. Event Attribute Functions
 - 1.5. Building DDL Triggers
 - 1.6. Data Manipulation Language Triggers
 - 1.7. Statement-Level Triggers
 - 1.8. Row-Level Triggers
 - 1.9. Compound Triggers
 - 1.10. INSTEAD OF Triggers
 - 1.11. System and Database Event Triggers
 - 1.12. Trigger Restrictions
 - 1.13. Maximum Trigger Size
 - 1.14. SQL Statements
 - 1.15. LONG and LOG RAW Data Types
 - 1.16. Mutating Tables
- 1.17. System Triggers
- 1.18. Supporting Scripting
- 1. 13 Dynamic SQL
 - 1.1. Dynamic SQL Architecture
 - 1.2. Native Dynamic SQL (NDS)
 - 1.3. Dynamic Statements
 - 1.4. Dynamic Statements with Inputs
 - 1.5. Dynamic Statements with Inputs and Outputs
 - 1.6. Dynamic Statements with an Unknown Number of Inputs
 - 1.7. DBMS_SQL Package
 - 1.8. Dynamic Statements
 - 1.9. Dynamic Statements with Inputs Variables
 - 1.10. Dynamic Statements with Variable Inputs and Fixed Outputs
 - 1.11. Dynamic Statements with Variable Inputs and Outputs
 - 1.12. DBMS_SQL Package Definition
 - 1.13. Supporting Scripts