1 Introduction

Lesson Objectives

After completing this lesson, you should be able to do the following:

- Discuss the goals of the course
- Describe the `HR` database schema that is used in this course
- Identify the available user interface environments that can be used in this course
- Reference the available appendixes, documentation, and other resources

Lesson Agenda

- Course objectives and course agenda
- The schema and appendixes used in this course
- Overview of Oracle Database 12*c* and related products
- Available PL/SQL development environments
- Oracle documentation and additional resources

Course Objectives

- After completing this course, you should be able to do the following:
  - Identify the programming extensions that PL/SQL provides to SQL
  - Write PL/SQL code to interface with the database
  - Design PL/SQL anonymous blocks that execute efficiently
  - Use PL/SQL programming constructs and conditional control statements
  - Handle runtime errors
  - Describe stored procedures and functions

Course Road Map

Lesson 1: Course Overview

Unit 1: Introducing PL/SQL

Unit 2: Programming with PL/SQL

Unit 3: Working with PL/SQL Code

Lesson 2: Introduction to PL/SQL

Lesson 3: Declaring PL/SQL Variables

Lesson 4: Writing Anonymous PL/SQL blocks

Lesson 5: Using SQL Statements in PLSQL blocks

Course Road Map

Lesson 1: Course Overview

Unit 1: Introducing PL/SQL

Unit 2: Programming with PL/SQL

Unit 3: Working with PL/SQL Code

Lesson 6: Writing Control Structures

Lesson 7: Working with Composite Data Types

Lesson 8: Using Explicit Cursors

Course Road Map

Lesson 1: Course Overview

Unit 1: Introducing PL/SQL

Unit 2: Programming with PL/SQL

Unit 3: Working with PL/SQL Code

- Lesson 9: Handling Exceptions
- Lesson 10: Creating Procedures and Functions

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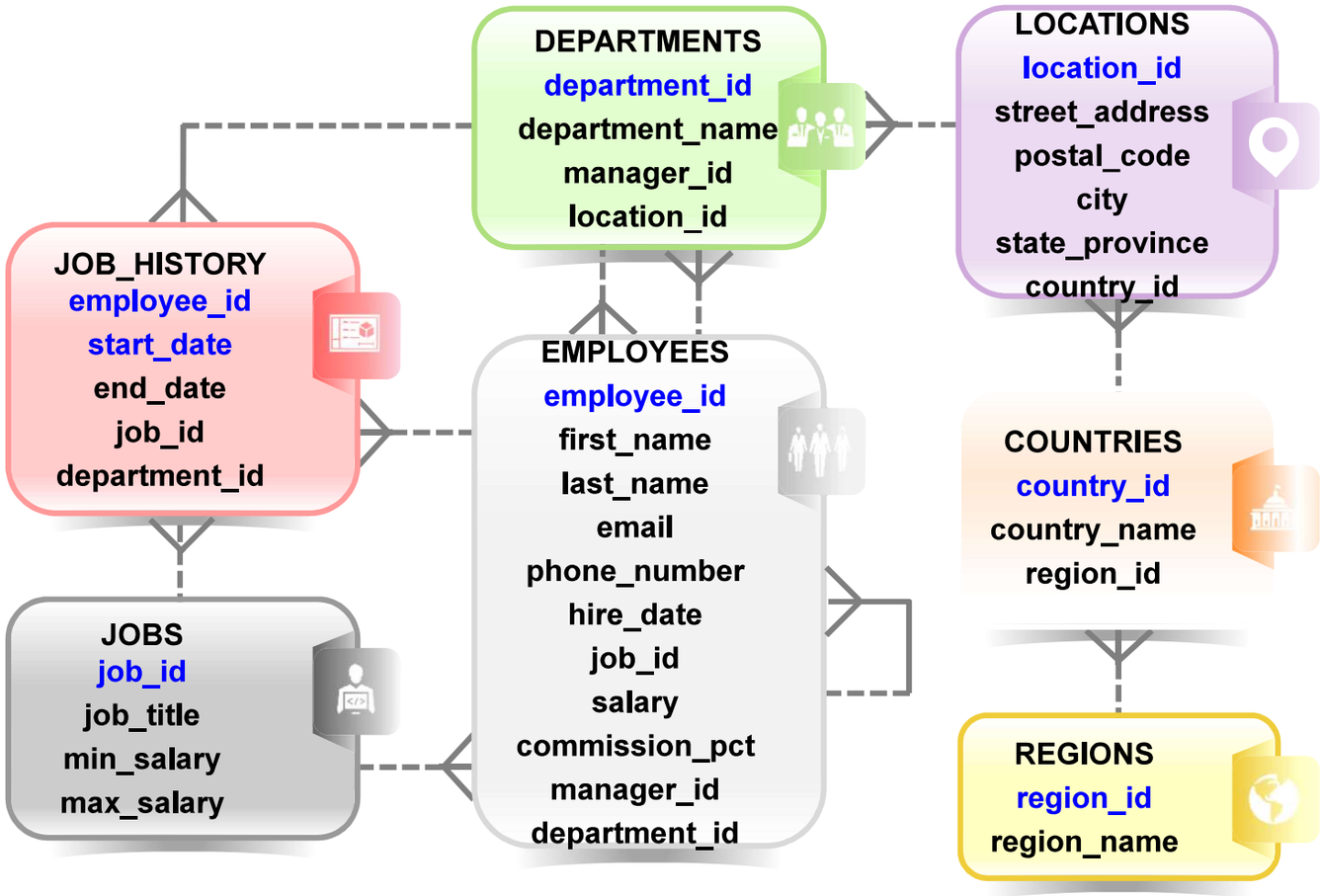
Human Resources (HR) Schema for This Course



Course Agenda

- Day 1:
  1. Introduction
  2. Introduction to PL/SQL
  3. Declaring PL/SQL Variables
  4. Writing Executable Statements
  5. Using SQL Statements within a PL/SQL Block
  6. Writing Control Structures
- Day 2:
  7. Working with Composite Data Types
  8. Using Explicit Cursors
  9. Handling Exceptions
  10. Introducing Stored Procedures and Functions

Class Account Information

- A cloned `HR` account ID is set up for you.
- Your account ID is `ora41`.
- The password matches your account ID.
- Each machine has its own complete environment, and is assigned the same account.

Appendixes and Practices Used in This Course

- Appendix A: Table Descriptions and Data
- Appendix B: Using SQL Developer
- Appendix C: Using SQL*Plus
- Appendix D: Commonly Used SQL Commands
- Activity Guide: Practices and Solutions

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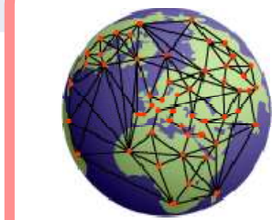
Oracle Database 12*c*: Focus Areas

Information Management

Oracle Cloud

Application Development



Infrastructure Grids

Oracle Database 12*c*

High Availability

Manageability

Performance

Security

Information Integration

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PL/SQL Development Environments

- The course setup provides the following tools for developing PL/SQL code:
  - Oracle SQL Developer (used in this course)
  - Oracle SQL*Plus

Oracle SQL Developer

- Oracle SQL Developer is a free graphical tool that enhances productivity and simplifies database development tasks.
- You can connect to any target Oracle database schema by using standard Oracle database authentication.
- You use SQL Developer in this course.

SQL Developer

Specifications of SQL Developer

- Is developed in Java
- Supports the Windows, Linux, and Mac OS X platforms
- Enables default connectivity by using the JDBC Thin driver
- Connects to Oracle Database version 9.2.0.1 and later
- Connects to Oracle Database on Cloud also

SQL Developer 4.1.3 Interface

Coding PL/SQL in SQL*Plus


```
oracle@EDRSR9P1:~/Desktop
File  Edit  View  Search  Terminal  Help
Copyright (c) 1982, 2012, Oracle.  All rights reserved.

Enter user-name: ora41
Enter password:
Last Successful login time: Mon Sep 2012 21:55:44 +00:00

Connected to:
Oracle Database 12c Enterprise Edition Release 12.1.0.0.2 - 64bit Beta
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> set serveroutput on
SQL> create or replace procedure hello is
  2  begin
  3  dbms_output.put_line('Hello Class!');
  4  end;
  5  /

Procedure created.

SQL> execute hello
Hello Class!

PL/SQL procedure successfully completed.

SQL>
```

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Summary

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- Discuss the goals of the course
- Describe the `HR` database schema that is used in the course
- Identify the available user interface environments that can be used in this course
- Reference the available appendixes, documentation, and other resources