INTRODUCTION

TO

PL/SQL

Lesson Objectives

Discuss the goals of the course

Describe the database schemas that are used in the course

Identify the available user interface environments that can be used in this course

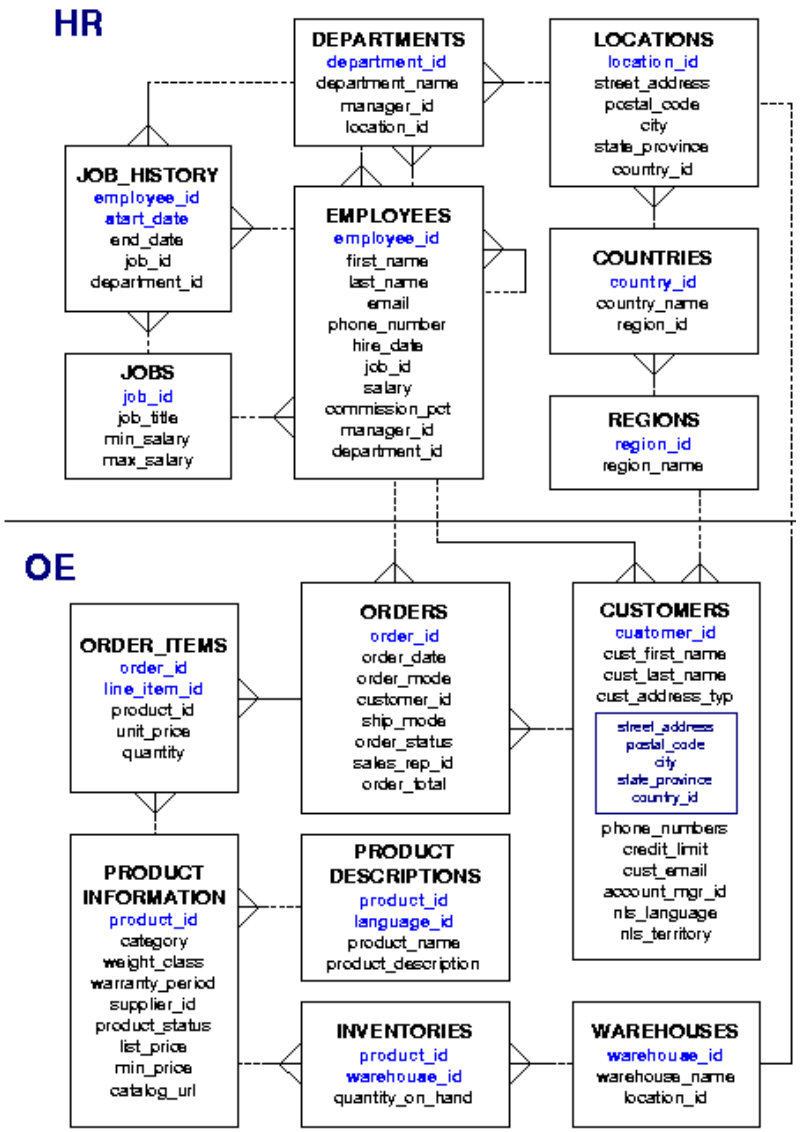
Reference the available appendixes, documentation, and other resources

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 run-time errors
- Describe stored procedures and functions

HR and OE Schemas for This Course



Course Agenda

DAY - 1:

- Introduction to PL/SQL
- Declaring PL/SQL Variables
- Writing Executable Statements
- Interacting with Oracle
- Database Server: SQL Statements in PL/SQL Programs
- Writing Control Structures

Course Agenda

DAY - 2:

- Working with Composite Data Types
- Using Explicit Cursors
- Handling Exceptions
- Introducing Stored
- Procedures and Functions

Course Agenda

DAY - 3:

- Introduction
- Creating Procedures
- Creating Functions
- Creating Packages
- Working with Packages

Course Agenda

DAY - 4:

- Using Oracle-Supplied Packages in Application Development
- Dynamic SQL
- Design consideration for PL/SQL Code
- Creating Triggers

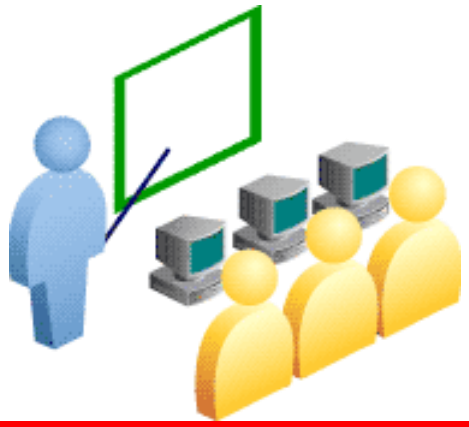
Course Agenda

DAY - 5:

- DDL, and Event Database triggers
- Using the PL/SQL Compiler
- Managing PL/SQL Code
- Managing Dependencies

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.
- The instructor has a separate ID.



PL/SQL Development Environments

This course setup provides the following tools for developing PL/SQL code:

- Oracle SQL Developer (used in this course)
- Oracle SQL*Plus
- Oracle JDeveloper IDE

What Is 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 using standard Oracle database authentication.
- You will use SQL Developer in this course.
- Appendix C contains details on using SQL Developer.

SQL Developer

What is PL/SQL?

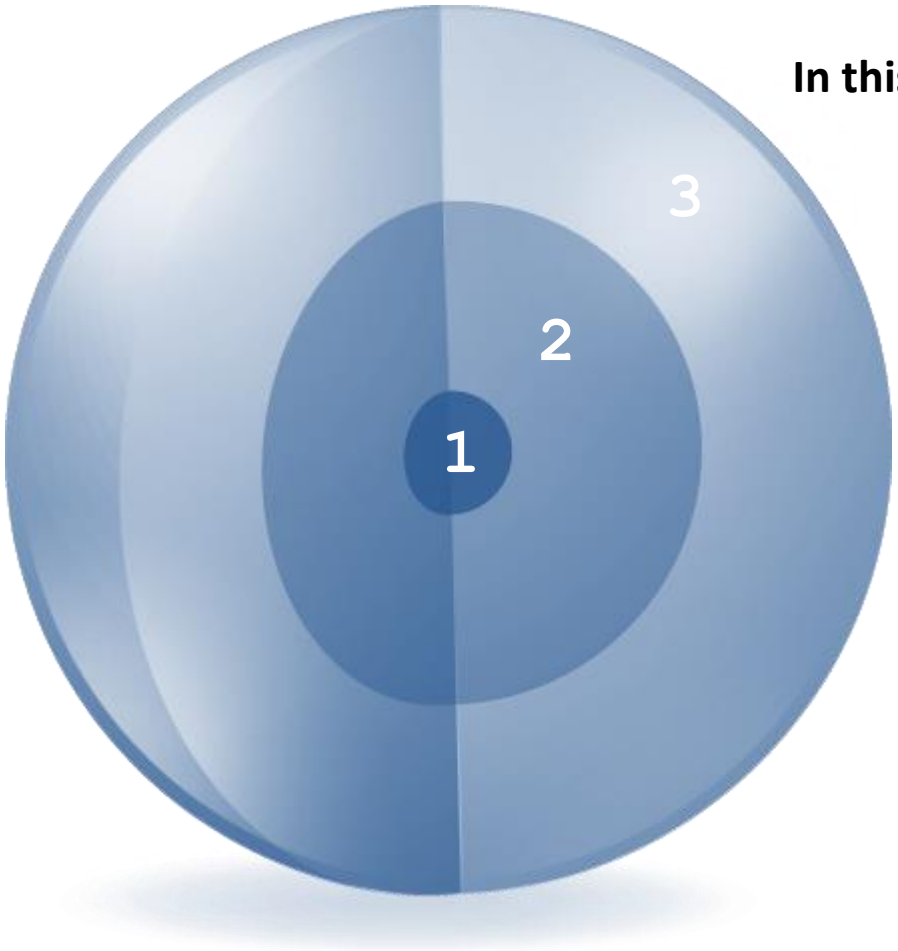
- PL/SQL stands for Procedural Language/Structured Query Language.
- It is Oracle Corporation's procedural extension language for SQL and the Oracle relational database.
- *PL/SQL* is one of three key programming languages embedded in the Oracle Database, along with SQL itself and Java.
- PL/SQL supports variables, conditions, loops and exceptions.
- Arrays are also supported, though in a somewhat unusual way, involving the use of PL/SQL collections. PL/SQL collections are a slightly advanced topic.

Oracle SQL and PL/SQL Documentation

- *Oracle Database New Features Guide*
- *Oracle Database PL/SQL Language Reference*
- *Oracle Database Reference*
- *Oracle Database SQL Language Reference*
- *Oracle Database Concepts*
- *Oracle Database PL/SQL Packages and Types Reference*
- *Oracle Database Advanced Application Developer's Guide 11g*
- *Oracle Database SQL Developer User's Guide Release 1.5*

URL: http://www.oracle.com/technetwork/indexes/documentation/index.html

Session Summary



In this lesson, you should have learned how to:

1. **Discuss the goals of the course**
2. **Describe the HR and OE database schema that is used in the course**
3. **Identify the available user interface environments that can be used in this course**

Practice 1