Database Design

Using Applications

Objectives

This lesson covers the following objectives:

- Distinguish between application software and system software and give an example of each

- Demonstrate use of Oracle Application Express to enter SQL statements that retrieve data

Purpose

Every day, in one way or another, we come in contact with computer applications.

If you checked your email today, it was probably done using an application. If you bought an item at a grocery store, the clerk scanned the item using an application that calculated your bill and updated the store inventory. In this course, you will learn the syntax of SQL using the application called Oracle Application Express.

Application Programs

Although computers have been around since before you were born, their use for business and personal computing didn't take place until application software programs were developed. Application programs allowed the end user—people like you and me—to be able to buy fully developed, ready-to-use programs. It was no longer necessary to know how the program worked, just that it did work and accomplished what we wanted it to do.

Application Programs (cont.)

Application program software is different from system software. System software consists of low-level programs designed to interact with the computer hardware. Operating systems, compilers, and system utilities are examples of system software. In contrast, application software includes programs for word processing, databases, gaming, email, and graphics.

Application Programs (cont.)

Yahoo.com uses the Oracle database to store data. Rather than having everyone who wants to search the database or retrieve email learn SQL, an application has all of the SQL (and other coding languages) pre-programmed into it. With a few mouse clicks, users have access to all of the information they need.

Using Applications

An application is like a car. To drive a car, you need to know enough to make it work. It has a friendly "shell" to hide all the things that you don't need to know, such as how the transmission works or how fuel like petrol or diesel is used to power the engine. Could you ever get your driver's license if you had to demonstrate an understanding of every system—electrical, powertrain, hydraulic, fuel, etc.—used to make the car run?

Oracle Application Express

In this course, you will use Oracle Application Express. This application enables many developers to build and access applications as if they were running in separate databases. With built-in features such as design themes, navigational controls, form handlers, and flexible reports, Oracle Application Express accelerates the application development process.

Oracle Application Express (cont.)

Oracle Application Express has three components:

- SQL Workshop
- Application Builder
- Data Browser

To learn SQL, you will use the SQL Workshop component. To design an application, you use Application Builder.

Your teacher will demonstrate how to use SQL Workshop so you can get started learning SQL.

Terminology

Key terms used in this lesson included:

- Application software
- System software

Summary

In this lesson, you should have learned how to:

- Distinguish between application software and system software and give an example of each

- Demonstrate use of Oracle Application Express to enter SQL statements that retrieve data