Exercise 3. Joins

What This Exercise Is About

This exercise will give you the opportunity to code inner and outer joins.

What You Should Be Able to Do

At the end of the lab, you should be able to:

• Code Inner and Outer Joins

Introduction

See the data model at the start of this Exercise Guide to get the column names and descriptions for each table.

Note: Use the views **VDEPARTMENT, VEMPLOYEE, and VPROJECT** during this unit.

Required Materials

• Student handout
• SQL Reference

Exercise Instructions

Problem 1

Display all employees who work in the INFORMATION CENTER department. Show department number, employee number and last name for all employees in that department. The list should be ordered by employee number.
Use the "old" SQL syntax that puts the join condition in the WHERE clause.

Note: Use the views **VDEPARTMENT, VEMPLOYEE, and VPROJECT** during this unit.

Problem 2

Solve problem 1 again using the newer SQL syntax that places the join condition in the ON clause.

Problem 3

Bill needs a list of those employees whose departments are involved in projects. The list needs to show employee number, last name, department number, and project name. The list should be ordered by project names within employee numbers.

Problem 4

Now Bill wants to see all employees, whether or not their departments are involved a project. The list needs to show the employee number, last name, department number, and project name. If the department of an employee is not involved in a project, display NULLs instead of the project name. The list should be ordered by project name within employee number.

Problem 5

Now Bill wants to see all projects, including those assigned to departments without employees. The list needs to show employee number, last name, department number, and project name. If a project is not assigned to a department having employees, NULLS should be displayed instead of the department number, employee number and last name. The list should be ordered by employee number within project name.

Problem 6

Last, Bill wants to see all projects and all employees in one report. Projects not assigned to departments having employees should also be listed as well as employees who work in departments which are not involved in projects. The list needs to show employee number, last name, department number, and project name. If a project is not assigned to a department having employees, NULLS should be displayed instead of the department number, employee number and last name. If the department of an employee is not involved in a project, display NULLs instead of the project name. The list should be ordered by project name within last name.

END OF LAB

Exercise 3. Joins   3-3