# Exercise 5. Subqueries

## What This Exercise Is About

This exercise gives you the opportunity to work with subqueries.

## What You Should Be Able to Do

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

- Code simple subqueries using the = and > operators
- Code more complex subqueries using the keywords ANY, ALL, IN
- Code the NOT EXISTS subquery
- Code correlated subqueries

## Introduction

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

## Required Materials

- Student handout
- SQL Reference

# Exercise Instructions

### *Problem 1*

Retrieve all employees who are not involved in a project. Not involved in a project are those employees who have no row in the EMP_ACT table. Display employee number, last name, and department name.

### *Problem 2*

Retrieve all employees whose yearly salary is more than the average salary of the employees in their department. For example, if the average yearly salary for department E11 is 20998, show all people in department E11 whose individual salary is higher than 20998. Display department number, employee number, and yearly salary. Sort the result by department number and employee number.

### *Problem 3*

Retrieve all departments having the same number of employees as department A00. List department number and number of employees. Department A00 should not be part of the result.

### *Problem 4*

Display employee number, last name, salary, and department number of employees who earn more than at least one employee in department D11. Employees in department D11 should not be included in the result. In other words, report on any employees in departments other than D11 whose individual yearly salary is higher than that **of at least one** employee of department D11. List the employees in employee number sequence.

### *Problem 5*

Display employee number, last name, salary, and department number of all employees who earn more than everybody belonging to department D11. Employees in department D11 should not be included in the result. In other words, report on all employees in departments other than D11 whose individual yearly salary is higher than that **of every** employee in department D11. List the employees in employee number sequence.

### *Problem 6*

Display employee number, last name, and number of activities of the employee with the largest number of activities. Each activity is stored as one row in the EMP_ACT table.

 

### *Problem 7*

Display employee number, last name, and activity number of all activities in the EMP_ACT table. However, the list should only be produced if there were any activities in 1982.

Note: The EMP_ACT table in the Sample database of Windows has a duplicate row for employee number ‘000020’. This may effect the result.

### *END OF LAB*