**Problem Statement**

The COMPANY database keeps track of a company’s employees, departments, and projects. Suppose that after the requirements collection and analysis phase, the database designers provide the following description of the miniworld—the part of the company that will be represented in the database.

* A department controls a number of projects, each of which has a unique  
  name, a unique number, and a single location.
* The company is organized into departments. Each department has a unique  
  name, a unique number, and a particular employee who manages the  
  department. We keep track of the start date when that employee began managing the department. A department may have several locations.
* We store each employee’s name, Social Security number, address, salary, sex  
  (gender), and birth date. An employee is assigned to one department, but  
  may work on several projects, which are not necessarily controlled by the  
  same department. We keep track of the current number of hours per week  
  that an employee works on each project. We also keep track of the direct  
  supervisor of each employee (who is another employee).
* We want to keep track of the dependents of each employee for insurance  
  purposes. We keep each dependent’s first name, sex, birth date, and relationship to the employee.

