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Assignment #3

Retrieve the names (fname,lname) of employees in department 4 who work more than 34 hours per week on the 'ENG' project. (“ENG” is project name.)

dep_four_emps ← $\sigma_{dno = 4}$ (EMPLOYEE)

dep_four_info ← π fname, lname, SSN (dep_four_emps)

dep_four_projects ← dep_four_info $\triangleright\triangleleft$ (SSN = ESSN) WORKS_ON

dep_four_hours ← $\sigma_{hours > 34}$ (dep_four_projects)

project_names ← dept_four_hours $\triangleright\triangleleft$ (PNO = Pnumber) PROJECT

project_eng ← $\sigma_{Pname > \text{'ENG'}}$ (project_names)

Result ← π fname, lname (dep_four_emps)

List the name (dependent_name) of female dependents, if the dependents depend on the employees who work for the ‘ME’ department. (“ME” is department name).

dept_num ← $\sigma_{dname = \text{'ME'}}$ (DEPARTMENT)

emps_ME ← dept_num $\triangleright\triangleleft$ (dnumber = DNO) EMPLOYEE

emps_ME_SSN ← π ssn (emps_ME)

emps_deps ← emps_ME_SSN $\triangleright\triangleleft$ (SSN = ESSN) DEPENDENT

female_deps ← $\sigma_{sex = \text{'female'}}$ (emps_deps)

Result ← π dependent_name (female_deps)

Retrieve the names (fname,lname) of all employees who do not work on any project.

emps_with_project(SSN) ← π essn (WORKS_ON)

all_emps_SSN ← π ssn (EMPLOYEE)

emps_no_project ← all_emps_SSN – emps_with_project

emps_info ← emps_no_project * EMPLOYEE

Result ← π fname, lname (emps_info)

Find the names (fname,lname) of employees that are directly supervised by 'Susan Yao'.

susan_yao ← $\sigma_{fname = 'Susan'}$ ($\sigma_{lname = 'Yao'}$ (EMPLOYEE))

susan_SSN(susanSSN) ← π ssn (susan_yao)

emps_supervised ← susan_SSN $\triangleright\triangleleft$ (susanSSN = superSSN) EMPLOYEE

Result ← π fname, lname (emps_supervised)