**Database Design – Quiz 2**

**Due date:** Feb 25, 11:59PM

Use COMPANY database schema and specify following queries in relational algebra*.*

**1.** Retrieve the names of all employees in department 5 who work more than 10 hours per week on the ProductX project.

**2.** List the names of all employees who have a dependent with the same first name as themselves.

**3.** Find the names of all employees who are directly supervised by ‘Franklin Wong’.

**4.** For each project, list the project name and the total hours per week (by all employees) spent on that project.

**5.** Retrieve the names of all employees who work on every project.

**6.** Retrieve the names of all employees who do not work on any project.

**7.** For each department, retrieve the department name and the average salary of all employees working in that department.

**8.** Retrieve the average salary of all female employees.

**9.** Find the names and addresses of all employees who work on at least one project located in Houston but whose department has no location in Houston.

**10.** List the last names of all department managers who have no dependents.

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COMPANY Database Schema

Employee (FName, LName, SSN, BDate, Address, Gender, Salary, SuperSSN, DNo)

Department (DName, DNo, MgrSSN, MgrStartDate)

Project(PName, PNo, PLocation, DNo)

Works\_On (SSN, PNo, Hours)

Dept\_Location (Dno, DLocation)

Dependent (Essn, Dependent\_name, Gender, Bdate, Relationship)