Total grade 10 scaled to 5
Deadline: 23-08-2014

Based on the below database schema, write the relational algebra expression for the following queries:

EMPLOYEE

FNAME	MINIT	LNAME	SSN	BDATE	ADDRESS	SEX	SALARY	SUPERSSN	DNO

DEPARTMENT

DNAME	DNUMBER	MGRSSN	MGRSTARTDATE

DEPT_LOCATIONS

DNUMBER	DLOCATION

PROJECT

PNAME	PNUMBER	PLOCATION	DNUM

WORKS_ON

ESSN	PNO	HOURS

DEPENDENT

ESSN	DEPENDENT_NAME	SEX	BDATE	RELATIONSHIP

1. Find the names of all employees who are directly supervised by 'Franklin Wong'.

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

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

4. Retrieve the names of all employees in department 5 who work more than 10 hours per week on the Product X project.

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

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

7. 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.

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

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

10. Retrieve the average salary of female employees.