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CSC 460 Homework 3

QUERY 01
```
--Query 1:
--All attributes of employees from dept 5
set echo on
SELECT *
FROM mccann.employee e
WHERE e.dno = 5;
```

FNAME	M	LNAME	SSN	BDATE	ADDRESS	S	SALARY	SUPERSSN	DNO
John	B	Smith	123456789	09-JAN-55	731 Fondren, Houston, TX	M	30000	333445555	5
Franklin	T	Wong	333445555	08-DEC-45	638 Voss, Houston, TX	M	40000	888665555	5
Ramesh	K	Narayan	666884444	15-SEP-52	975 Fire Oak, Humble, TX	M	38000	333445555	5
Joyce	A	English	453453453	31-JUL-62	5631 Rice, Houston, TX	F	25000	333445555	5

QUERY 02
```
--SSNs of employees on proposal 10, sorted in descending order
SELECT essn
FROM mccann.works_on
WHERE pno = 10
ORDER BY essn DESC;
```

```
ESSN
---------
999887777
987987987
333445555
```

QUERY 03
```
--Cartesian product of emp first names and dependents names, distinct
SELECT DISTINCT e.fname, d.dependent_name
FROM mccann.employee e, mccann.dependent d;
```

FNAME	DEPENDENT_
John	Michael
John	Theodore
John	Abner
Alicia	Elizabeth
Alicia	Abner
Jennifer	Elizabeth
Jennifer	Theodore
Joyce	Alice
Ahmed	Joy
James	Alice
John	Alice
Franklin	Elizabeth
Jennifer	Michael
Franklin	Michael
Ramesh	Alice
Joyce	Elizabeth
Joyce	Michael
Ahmed	Alice
Ahmed	Elizabeth
Ahmed	Theodore
Ahmed	Abner
Joyce	Joy
James	Elizabeth
James	Joy
James	Abner
Franklin	Alice
Alicia	Alice
Alicia	Theodore
Jennifer	Abner
Ramesh	Theodore
James	Theodore
John	Elizabeth
Franklin	Abner
Jennifer	Alice
Ramesh	Joy
Alicia	Joy
Ramesh	Michael
Ramesh	Abner
Joyce	Theodore
James	Michael
John	Joy
Franklin	Joy
Franklin	Theodore
Alicia	Michael
Jennifer	Joy
Ramesh	Elizabeth
Joyce	Abner
Ahmed	Michael

48 rows selected.

QUERY 04
```
--Locations of research
SELECT dl.dlocation
FROM mccann.dept_locations dl, mccann.department d
WHERE dl.dnumber = d.dnumber
AND d.dname = 'Research';
```

```
DLOCATION
----------
Houston
Sugarland
Bellaire
```

QUERY 05
```
--Full name of employee with largest salary
SELECT fname, minit, lname
FROM mccann.employee
WHERE salary = (SELECT MAX(salary) FROM mccann.employee);
```

```
FNAME      M LNAME
---------- - ----------
James      E Borg
```

QUERY 06
```
--Names of departments with employee with dependent named alice
SELECT dept.dname
FROM mccann.employee e, mccann.department dept, mccann.dependent depn
WHERE depn.dependent_name = 'Alice'
AND depn.essn = e.ssn
AND dept.dnumber = e.dno;
```

```
DNAME
---------------
Research
Research
```

QUERY 07
```
--SSNs of employees in dept 5 or who supervise employee in dept 5
SELECT e.ssn
FROM mccann.employee e
WHERE e.dno = 5
UNION
SELECT e.superssn
FROM mccann.employee e
WHERE e.dno = 5;
```

```
SSN
---------
123456789
333445555
453453453
666884444
888665555
```

QUERY 08
```
--Birthdates of managers of departments with projects in Stafford
SELECT e.bdate
FROM mccann.employee e, mccann.project p, mccann.department d
WHERE p.plocation = 'Stafford'
AND p.dnum = d.dnumber
AND e.ssn = d.mgrssn;
```

```
BDATE
---------
20-JUN-31
20-JUN-31
```

QUERY 09
```
--Full name of each employee and full name of their supervisor
SELECT e1.fname, e1.minit, e1.lname, e2.fname, e2.minit, e2.lname
FROM mccann.employee e1, mccann.employee e2
WHERE e1.superssn = e2.ssn;
```

```
FNAME      M LNAME      FNAME      M LNAME
---------- - ---------- ---------- - ----------
Ramesh     K Narayan    Franklin   T Wong
John       B Smith      Franklin   T Wong
Joyce      A English    Franklin   T Wong
Franklin   T Wong       James      E Borg
Jennifer   S Wallace    James      E Borg
Alicia     J Zelaya     Jennifer   S Wallace
Ahmed      V Jabbar     Jennifer   S Wallace
```

QUERY 10
```
--Names of male dependents of male employees
SELECT d.dependent_name
FROM mccann.dependent d, mccann.employee e
WHERE d.sex = 'M'
AND d.essn = e.ssn
AND e.sex = 'M';
```

```
DEPENDENT_
----------
Michael
Theodore
```

QUERY 11
```
--Salaries of employees in dept 5 not on ProductY
SELECT e.salary
FROM mccann.employee e, mccann.works_on wo, mccann.project p
WHERE e.dno = 5
AND e.ssn = wo.essn
AND wo.pno = p.pnumber
AND p.pname != 'ProductY';
```

```
    SALARY
----------
     25000
     30000
     38000
     40000
     40000
     40000
```

QUERY 12
```
--For projects with more than 2 employees:
-- Retrieve project number, project name, number of employees on that project
SELECT p.pname, t1.*
FROM mccann.project p, (SELECT wo.pno, COUNT(wo.essn)
                                    FROM mccann.works_on wo
                                    GROUP BY wo.pno
                                    HAVING COUNT(wo.essn) >= 2) t1
WHERE p.pnumber = t1.pno;
```

```
PNAME                      PNO COUNT(WO.ESSN)
------------------- ---------- --------------
ProductX                     1              2
Newbenefits                 30              3
ProductY                     2              3
Reorganization              20              3
ProductZ                     3              2
Computerization             10              3
```

6 rows selected.

QUERY 13
```
--Names of departments that employ all sex
--Want: d.dname
--alpha: e.dno, e.sex from employee
--beta: sex
SELECT d.dname
FROM mccann.department d, (
SELECT DISTINCT dno
FROM mccann.employee e
GROUP BY dno
HAVING COUNT(DISTINCT e.sex) =
          (SELECT COUNT(DISTINCT sex)
          FROM mccann.employee
          )) t1
WHERE d.dnumber = t1.dno;
```

```
DNAME
--------------
Research
Administration
```