

Name- Achyut Jagini

SRN-PES2UG19CS013

WEEK 8 SQL – Joins: inner, outer; Sub queries

1. Using nested query retrieve the names of all employees who have two or more dependents

```
company=# SELECT Fname,Minit,Lname
company-# FROM EMPLOYEE
company-# WHERE(SELECT COUNT(*) FROM DEPENDENT WHERE Essn=Ssn)>=2;
  fname | minit | lname
-----+-----+-----
  John   | B     | Smith
Franklin | T     | Wong
(2 rows)
```

2. Using nested query Retrieve the name of each employee who has a dependent with the same first name and is the same sex as the employee.

```
company=# SELECT Fname,Gender
company-# FROM EMPLOYEE
company-# WHERE Ssn=(
company(#      SELECT Essn
company(#      FROM DEPENDENT
company(#      WHERE Dependent_name=Fname AND DEPENDENT.Gender=EMPLOYEE.Gender);
  fname | gender
-----+-----
(0 rows)
```

3. Using nested query retrieve names of employees whose salary is greater than the salary of all the employees in department 5.

```
company=# SELECT Fname,Minit,Lname,Dno
company=# FROM EMPLOYEE
company=# WHERE Salary>ALL(SELECT Salary FROM EMPLOYEE WHERE dno=5);
  fname  | minit | lname  | dno
-----+-----+-----+----
James   | E     | Borg   | 1
Jennifer| S     | Wallace| 4
(2 rows)
```

4. Retrieve the names of employees who have no dependents.( use Exists/Not Exists)

```
company=# SELECT Fname,Minit,Lname,Ssn
company=# FROM EMPLOYEE
company=# WHERE NOT EXISTS(
company(# SELECT Essn FROM DEPENDENT
company(# WHERE DEPENDENT.Essn=EMPLOYEE.Ssn);
  fname  | minit | lname  | ssn
-----+-----+-----+----
James   | E     | Borg   | 888665555
Alicia  | J     | Zelaya | 999887777
Ramesh  | K     | Narayan| 666884444
Joyce   | A     | English| 453453453
Ahmed   | V     | Jabbar | 987987987
(5 rows)
```

5. List the names of managers who have at least one dependent

```
company=# SELECT Fname,Minit,Lname,Ssn FROM EMPLOYEE WHERE EXISTS(
company(# SELECT Essn FROM DEPENDENT WHERE(
company(# DEPENDENT.Essn=EMPLOYEE.Ssn AND DEPENDENT.Essn IN
company(# (SELECT Mgr_ssn FROM DEPARTMENT)
company(# )
company(# );
  fname  | minit | lname  | ssn
-----+-----+-----+----
Franklin | T     | Wong   | 333445555
Jennifer | S     | Wallace| 987654321
(2 rows)
```

6. Using natural Join retrieve the name and address of every employee who works for the 'Research' department.

```
company=# SELECT Fname,Minit,Lname,Dno,Address
company=# FROM EMPLOYEE
company=# JOIN DEPARTMENT ON DEPARTMENT.Dnumber=EMPLOYEE.Dno AND Dname='Research';
```

fname	minit	lname	dno	address
John	B	Smith	5	731 Fondren,Houston,TX
Franklin	T	Wong	5	638 voss,Houston,TX
Ramesh	K	Narayan	5	975 Fire Oak, Humble, TX
Joyce	A	English	5	5631 Rice,Houston,TX

(4 rows)