DBMS Lab Week 8

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Section : A

SQL – Joins: inner, outer; Sub queries
Write the SQL query for the following:

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

Command : `select fname,minit,lname from employee e where(select COUNT(*) from dependent where e.ssn=essn)>=2;`

```
company=# select fname,minit,lname from employee e where(select COUNT(*) from dependent where e.ssn=essn)>=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.

Command : `select fname,minit,lname from employee as e where e.ssn in(select essn from dependent where e.fname=dependent_name and e.gender=gender);`

```
company=# select fname,minit,lname from employee as e where e.ssn in(select essn from dependent where e.fname=dependent_name
 and e.gender=gender);
 fname | minit | lname
-------+-------+-------
(0 rows)
```

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

Command : `select fname,minit,lname,salary from employee e where e.salary >(select MAX(m.salary) from employee m where dno=5);`

```
company=# select fname,minit,lname,salary from employee e where e.salary >(select MAX(m.salary) from employee m where dno=5)
;
  fname   | minit |  lname  |  salary
----------+-------+---------+----------
 James    | E     | Borg    | 55000.00
 Jennifer | S     | Wallace | 43000.00
(2 rows)
```

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

Command : `select fname,minit,lname from employee e where NOT EXISTS(select * from dependent d where e.ssn=d.essn);`

```
company=# select fname,minit,lname from employee e where NOT EXISTS(select * from dependent d where e.ssn=d.essn);
 fname  | minit |  lname
--------+-------+---------
 James  | E     | Borg
 Alicia | J     | Zelaya
 Ramesh | K     | Narayan
 Joyce  | A     | English
 Ahmed  | V     | Jabbar
(5 rows)
```

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

Command : `select fname,minit,lname from employee where ssn in(select mgr_ssn from department d where EXISTS(select * from dependent where d.mgr_ssn=essn));`

```
company=# select fname,minit,lname from employee where ssn in(select mgr_ssn from department d where EXISTS(select * from
 dependent where d.mgr_ssn=essn));
  fname   | minit |  lname
----------+-------+---------
 Franklin | T     | Wong
 Jennifer | S     | Wallace
(2 rows)
```

<6> Using natural Joins, retrieve the name and address of every employee who works for the 'Research' department.

Command: `select fname,minit,lname,address from employee e NATURAL JOIN department d where e.dno=d.dnumber and d.dname='Research';`

```
company=# select DISTINCT(fname),minit,lname,address from employee e NATURAL JOIN department d where e.dno=d.dnumber and
d.dname='Research';
  fname   | minit |  lname  |        address
----------+-------+---------+------------------------
 Franklin | T     | Wong    | 638 voss,Houston,TX
 John     | B     | Smith   | 731 Fondren,Houston,TX
 Joyce    | A     | English | 5631 Rice,Houston,TX
 Ramesh   | K     | Narayan | 975 Fire Oak, Humble, TX
(4 rows)
```