

DBMS LAB (UE19CS304)
WEEK #8

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

```
PS C:\Program Files\PostgreSQL\13\bin> ./psql -U postgres
Password for user postgres:
psql (13.4)
WARNING: Console code page (437) differs from Windows code page (1252)
        8-bit characters might not work correctly. See psql reference
        page "Notes for Windows users" for details.
Type "help" for help.

postgres=# \c company
You are now connected to database "company" as user "postgres".
company=# select fname, lname from Employee as e where (select count(Essn) from dependent as d where e.Ssn = d.Essn)>=2;
   fname   | lname
-----+-----
   John    | Smith
 Franklin  | 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, lname from Employee as e where exists(select fname from dependent as d where e.gender = d.gender and e.Ssn = d.Essn);
   fname   | lname
-----+-----
 Franklin  | Wong
(1 row)
```

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

```
company=# select fname from employee as e where salary > (select max(salary) from employee as e2 where e2.dno=5);
   fname
-----
   James
 Jennifer
(2 rows)
```

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

```
company=# select fname, lname from Employee as e where NOT EXISTS(select * from Dependent as d where e.Ssn = d.Essn);
   fname   | lname
-----+-----
   James   | Borg
   Alicia  | Zelaya
   Ramesh  | Narayan
```

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

```
company=# select fname, lname from Employee, department where (select count(Essn) from dependent as d where department.Mgr_ssn = d.Essn and Employee.Ssn = d
eartment.Mgr_ssn)>=1;
   fname   | lname
-----+-----
 Franklin  | Wong
 Jennifer  | Wallace
(2 rows)
```

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

```
company=# select fname, address from employee as e natural join department where e.dno =5;
 fname | address
-----+-----
 John  | 731 Fondren,Houston,TX
 John  | 731 Fondren,Houston,TX
 John  | 731 Fondren,Houston,TX
 Franklin | 638 voss,Houston,TX
 Franklin | 638 voss,Houston,TX
 Franklin | 638 voss,Houston,TX
 Ramesh | 975 Fire Oak, Humble, TX
 Ramesh | 975 Fire Oak, Humble, TX
 Ramesh | 975 Fire Oak, Humble, TX
 Joyce  | 5631 Rice,Houston,TX
 Joyce  | 5631 Rice,Houston,TX
 Joyce  | 5631 Rice,Houston,TX
(12 rows)
```