

## WEEK 8

### SQL – Joins: inner, outer; Sub queries

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SECTION:G

Write the SQL query for the following.

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

```
company=# select lname, fname
company-# from employee
company-# where (select count(*)
company-# from dependent
company-# where ssn=essn)>=2
company-# ;
  lname |  fname
-----+-----
  Smith |   John
   Wong | Franklin
(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 e.fname, e.lname
company-# from employee as e
company-# where e.ssn in (select essn
company-# from dependent
company-# where e.fname = dependent_name and e.gender = gender);
  fname |  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.

```
company=# select fname, lname
company-# from employee
company-# where salary > (select salary from employee where dno=5 and salary=40000);
  fname |  lname
-----+-----
  James |   Borg
Jennifer | Wallace
(2 rows)
```

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

```
company=# select fname,lname
company-# from employee
company-# where not exists (select * from dependent where ssn=essn);
 fname | lname
-----+-----
 James | Borg
Alicia | Zelaya
Ramesh | Narayan
Joyce  | English
Ahmed  | Jabbar
(5 rows)
```

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

```
company=# select fname,lname
company-# from employee
company-# where exists (select * from dependent where ssn=essn) and exists (select * from department where ssn=mgr_ssn);
 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 e.fname,e.lname,e.address
company-# from employee e
company-# join department d on d.dnumber = e.dno
company-# where d.dname = 'Research';
  fname   |  lname   | address
-----+-----+-----
 John     | Smith    | 731 Fondren,Houston,TX
Franklin  | Wong     | 638 voss,Houston,TX
Ramesh    | Narayan  | 975 Fire Oak, Humble, TX
Joyce     | English  | 5631 Rice,Houston,TX
(4 rows)
```