

SQL – Joins: inner, outer; Sub queries

WEEK 8

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

```
SELECT LNAME , FNAME FROM EMPLOYEE WHERE ( SELECT COUNT ( * ) FROM DEPENDENT WHERE  
SSN = ESSN ) >=2;
```

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.

```
SELECT E.FNAME, E.LNAME FROM EMPLOYEE AS E WHERE E.SSN IN (SELECT ESSN FROM DEPENDENT  
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.

```
select fname, lname from employee E where E.salary > (select max(salary) from employee where  
dno=5);
```

fname	lname
James	Borg
Jennifer	Wallace

(2 rows)

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

select fname, lname from employee E where not exists (select essn from dependent D where D.essn = E.ssn);

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.

select fname, lname from employee E inner join department D on E.ssn=D.mgr_ssn inner join dependent p on E.ssn=essn group by fname, lname;

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.

select fname, lname, address from employee natural join (select dname, dnumber as dno from department where dname='Research') as dep_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)		