21BDS0340

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Database Systems Lab

Assignment – III

**Exercise – V**

1. Retrieve the names of all employees in department 5 who work more than 10 hours per week on product X project

Command:

```
select e.f_name, p.name, wo.hours from works_on_bds0340 wo, employee_bds0340 e, project_bds0340 p where wo.emp_ssn = e.ssn and wo.proj_num = p.num and e.dept = 5 and wo.hours >= 10;
```

Output:

```
SQL> select e.f_name, p.name, wo.hours from works_on_bds0340 wo, employee_bds0340 e, project_bds0340 p wh
ere wo.emp_ssn = e.ssn and wo.proj_num = p.num and e.dept = 5 and wo.hours >= 10;

F_NAME                    NA      HOURS
------------------------- -- ----------
Frankin                   C          10
Joyce                     E          20
Frankin                   E          10
Joyce                     J          20
Frankin                   J        28.5
```

2. List the names of all employees who have a dependent with the same first name as themselves

Command:

```
select e.f_name, e.m_name, e.l_name from employee_bds0340 e, dependent_bds0340 d where d.emp_ssn = e.ssn and d.name = e.f_name;
```

Output:

```
[SQL> select e.f_name, e.m_name, e.l_name from employee_bds0340 e, dependent_bds0340 d where d.emp_ssn = e]
.ssn and d.name = e.f_name;

no rows selected
```

3. Find the names of all the employees who are supervised by ‘Franklin’

Command:

```
select e1.f_name, e1.m_name, e1.l_name from employee_bds0340 e1 join employee_bds0340 e2 on e1.super_ssn = e2.ssn where e2.f_name = 'Frankin';
```

Output:

```
[SQL> select e1.f_name, e1.m_name, e1.l_name from employee_bds0340 e1 join employee_bds0340 e2 on e1.super]
_ssn = e2.ssn where e2.f_name = 'Frankin';

F_NAME                    M L_NAME
------------------------- - -------------------------
John                      B Smith
Ramesh                    K Narayan
Joyce                     A English
```

4. Retrieve the names of the employees who do not work on any project

Command:
select e.f_name, m_name, l_name from employee_bds0340 e left join works_on_bds0340 wo on wo.emp_ssn = e.ssn where wo.proj_num is null;

Output:

```
[SQL> select e.f_name, m_name, l_name from employee_bds0340 e left join works_on_bds0340 wo on wo.emp_ssn ]
= e.ssn where wo.proj_num is null;

F_NAME                    M L_NAME
------------------------- - -------------------------
Ramesh                    K Narayan
Jennifer                  S Wallace
Ahmad                     V Jabbar
```

5. Find the names and addresses of all employees who work on at least one project located in Houston but whose department has no location in Houston

Command:
select e.f_name, e.m_name, e.l_name, e.address from employee_bds0340 e inner join works_on_bds0340 w on e.ssn = w.emp_ssn inner join project_bds0340 p on w.proj_num = p.num inner join department_bds0340 d on e.dept = d.num left join dept_location_bds0340 dl on d.num = dl.dept_num where p.location = 'Houston' and dl.dept_loc <> 'Houston';

Output:

```
[SQL> select e.f_name, e.m_name, e.l_name, e.address from employee_bds0340 e inner join works_on_bds0340 w]
 on e.ssn = w.emp_ssn inner join project_bds0340 p on w.proj_num = p.num inner join department_bds0340 d
on e.dept = d.num left join dept_location_bds0340 dl on d.num = dl.dept_num where p.location = 'Houston'
and dl.dept_loc <> 'Houston';

F_NAME                    M L_NAME                    ADDRESS
------------------------- - ------------------------- --------------------------------------------------
Frankin                   T Wong                      638 Voss, Houston, TX
```

6. List the names of all managers that have no dependents

Command:
select e.f_name, e.m_name, e.l_name from employee_bds0340 e left join dependent_bds0340 d on d.emp_ssn = e.ssn where d.emp_ssn is null;

Output:

```
[SQL> select e.f_name, e.m_name, e.l_name from employee_bds0340 e left join dependent_bds0340 d on d.emp_s]
sn = e.ssn where d.emp_ssn is null;

F_NAME                    M L_NAME
------------------------- - -------------------------
Alicia                    J Zelaya
Ramesh                    K Narayan
Doug                      E Glibert
Joyce                     Y Pan
Ahmad                     V Jabbar
```

7. List the employee names and the department names if they happen to manage the department

Command:

```
select e.f_name, e.m_name, e.l_name, d.name from employee_bds0340 e left join department_bds0340 d on d.mgr_ssn = e.ssn;
```

Output:

```
[SQL> select e.f_name, e.m_name, e.l_name, d.name from employee_bds0340 e left join department_bds0340 d o]
n d.mgr_ssn = e.ssn;

F_NAME                    M L_NAME                    NAME
------------------------- - ------------------------- -------------------------
Joyce                     Y Pan                       Administration
Doug                      E Glibert                   Headquarter
Jennifer                  S Wallace                   Finance
Frankin                   T Wong                      Research
Alicia                    J Zelaya
Joyce                     A English
Ramesh                    K Narayan
Ahmad                     V Jabbar
John                      B Smith

9 rows selected.
```

8. For each project, retrieve the project number, name and the number of employees who work on the project

Command:

```
select p.num, p.name, count(w.emp_ssn) from project_bds0340 p join works_on_bds0340 w on w.proj_num = p.num group by p.num, p.name;
```

Output:

```
[SQL> select p.num, p.name, count(w.emp_ssn) from project_bds0340 p join works_on_bds0340 w on w.proj_num ]
= p.num group by p.num, p.name;

       NUM NA COUNT(W.EMP_SSN)
---------- -- ----------------
      3388 A                 2
      1945 B                 2
      7745 E                 2
      2212 J                 3
      6688 C                 1
      4345 I                 1
      1566 F                 1
      1234 G                 1

8 rows selected.
```

9. For each project, list the projects name and the total hours (by all employees) spent on that project

Command:
select p.name, sum(w.hours) from project_bds0340 p inner join works_on_bds0340 w on w.proj_num = p.num group by p.name;

Output:

```
[SQL> select p.name, sum(w.hours) from project_bds0340 p inner join works_on_bds0340 w on w.proj_num = p.n]
um group by p.name;

NA SUM(W.HOURS)
-- ------------
A          72.5
B            29
E            30
J          65.5
C            10
I            35
F          11.5
G            13

8 rows selected.
```

10. Retrieve the names of employees who have 2 or more dependents

Command:
select e.f_name, e.m_name, e.l_name, count(d.name) from employee_bds0340 e inner join dependent_bds0340 d on e.ssn = d.emp_ssn group by e.f_name, e.m_name, e.l_name having count(d.name) >= 2;

Output:

```
[SQL> select e.f_name, e.m_name, e.l_name, count(d.name) from employee_bds0340 e inner join dependent_bds0]
340 d on e.ssn = d.emp_ssn group by e.f_name, e.m_name, e.l_name having count(d.name) >= 2;

F_NAME                    M L_NAME                    COUNT(D.NAME)
------------------------- - ------------------------- -------------
Franklin                  T Wong                                  3
John                      B Smith                                 2
```