Database and Management System Lab

Lab Experiment – 7

Name: Shubhojit Mitra
Roll No: R2142230793
Sap_ID: 500120225

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School of Computer Science,
University of Petroleum and Energy Studies,
Dehradun

Q1) Retrieve the names of all employees in department 5 who work more than 10 hours per week on the 'ProductX' project.

```
SELECT e.fname, e.lname
FROM employee e
JOIN works_on w ON e.ssn = w.essn
JOIN project p ON w.pno = p.pnumber
WHERE e.dno = 5
AND p.pname = 'ProductX'
AND w.hours > 10;
```

Q2) List the names of all employees who have a dependent with the same first name as themselves.

```
SELECT e.fname, e.lname
FROM employee e
JOIN dependent d ON e.ssn = d.essn
WHERE e.fname = d.dependent_name;
```

Q3) Find the names of employees who are directly supervised by 'Franklin Wong'.

```
SELECT e.fname, e.lname
FROM employee e
JOIN employee s ON e.super_ssn = s.ssn
WHERE s.fname = 'Franklin' AND s.lname = 'Wong';
```

Q4) Retrieve the names of employees who work on every project.

```
SELECT e.fname, e.lname
FROM employee e
WHERE NOT EXISTS (
    SELECT p.pnumber
    FROM project p
    WHERE NOT EXISTS (
    SELECT w.essn
    FROM works_on w
    WHERE w.pno = p.pnumber
    AND w.essn = e.ssn
    )
);
```

Q5) Retrieve the names of employees who do not work on any project.

```sql
SELECT e.fname, e.lname
FROM employee e
WHERE NOT EXISTS (
    SELECT w.essn
    FROM works_on w
    WHERE w.essn = e.ssn
);
```

Q6) Retrieve 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.

```sql
SELECT DISTINCT e.fname, e.lname, e.address
FROM employee e
JOIN works_on w ON e.ssn = w.essn
JOIN project p ON w.pno = p.pnumber
JOIN dept_locations dl ON e.dno = dl.dnumber
WHERE p.plocation = 'Houston'
AND dl.dlocation != 'Houston';
```

Q7) Retrieve the last names of all department managers who have no dependents.

```
SELECT e.lname
FROM employee e
JOIN department d ON e.ssn = d.mgr_ssn
WHERE NOT EXISTS (
    SELECT dep.dependent_name
    FROM dependent dep
    WHERE dep.essn = e.ssn
);
```