

## 10. Display the Department id, name and id and the name of its manager.

```
SELECT
    d.dnum,
    d.dname,
    e.ssn,
    CONCAT (e.fname, ' ', e.lname) AS "Name"
FROM
    department d
    JOIN employee e ON e.ssn = d.mgrssn;
```

## 11. Display the name of the departments and the name of the projects under its control.

```
SELECT d.dname, p.pname
FROM department d
    JOIN project p ON p.dnum = d.dnum;
```

## 12. Display the full data about all the dependence associated with the name of the employee they depend on him/her.

```
SELECT CONCAT (e.fname, ' ', e.lname) AS "Name", d.*
FROM `dependent` d
    JOIN `employee` e ON d.essn = e.ssn;
```

## 13. Display:

a. The name and the gender of the dependence that's gender is Female and depending on Female Employee.

```
SELECT
  CONCAT (e.fname, ' ', e.lname) AS "Name",
  d.dependent_name,
  d.gender
FROM
  dependent d
  JOIN employee e ON d.essn = e.ssn
WHERE
  d.gender = "f"
  AND e.gender = "f"; -- There is none btw.
```

b. And the male dependence that depends on Male Employee.

```
SELECT
  SELECT
    CONCAT (e.fname, ' ', e.lname) AS Name,
    d.dependent_name,
    d.gender
  FROM
    dependent d
    JOIN employee e ON d.essn = e.ssn
  WHERE
    d.gender = "m"
    AND e.gender = "m";
```

## 18. Retrieve the names of all employees in department 10 who works more than or equal 10 hours on “AL Rabwah” project.

```
SELECT CONCAT(e.fname, ' ', e.lname) AS Name
FROM employee e
JOIN works_for w ON w.essn = e.ssn
WHERE e.dno = 10
AND w.pno = (
    SELECT project.pnumber
    FROM project
    WHERE project.pname = 'AL rabwah'
)
AND w.hours >= 10; -- There is none also
```

## 19. Find the names of the employees who directly supervised with Kamel Mohamed.

```
-- NOTE: Kamel was deleted in the last lab, I replaced him with another employee
SELECT CONCAT (fname, ' ', lname) AS Name
FROM employee
WHERE superssn = (
    SELECT ssen FROM employee
    WHERE fname = 'Ahmad' AND lname = 'Othman'
);
```

**20. For each project, list the project name and the total hours (for all employees) spent on that project.**

```
SELECT
    p.pname,
    SUM(w.hours) AS "Total Hours"
FROM works_for w
JOIN project p ON w.pno = p.pnumber
GROUP BY p.pnumber;
```

**21. Retrieve the names of all employees who work in every project sorted.**

```
SELECT DISTINCT CONCAT(e.fname, ' ', e.lname) AS Name
FROM employee e
JOIN works_for w ON w.essn = e.ssn
ORDER BY Name;
```

**24. List the name of all managers who have no dependents.**

```
SELECT CONCAT(e.fname, ' ', e.lname) AS Name
FROM employee e
JOIN department d ON e.ssn = d.mgrssn
LEFT JOIN dependent dep ON dep.essn = e.ssn
WHERE dep.essn IS NULL
ORDER BY Name;
```

**25. Retrieve a list of employees and the projects they are working on ordered by department and within**

**each department ordered alphabetically by last name, first name.**

```
SELECT
    d.dname AS Department,
    CONCAT (e.fname, ' ', e.lname) AS Employee,
    p.pname AS Project
FROM employee e
JOIN department d ON e.dno = d.dnum
JOIN works_for w ON e.ssn = w.essn
JOIN project p ON w.pno = p.pnumber
ORDER BY d.dname, e.lname, e.fname;
```

**26. For each project located in Cairo City, find the project number, project name the controlling department name, the department manager last name, address and birthdate.**

```
SELECT
    p.pnumber AS ProjectNumber,
    p.pname AS ProjectName,
    d.dname AS DepartmentName,
    m.lname AS ManagerLastName,
    m.address AS ManagerAddress,
    m.bdate AS ManagerBirthdate
FROM project p
JOIN department d ON p.dnum = d.dnum
JOIN employee m ON d.mgrssn = m.ssn
WHERE p.city = 'cairo';
```