

✅ Step 1: Create Tables

```
-- Create DEPT Table
CREATE TABLE dept (
    dno VARCHAR(10) PRIMARY KEY,
    dname VARCHAR(50),
    mgreno INT
);

-- Create EMP Table
CREATE TABLE emp (
    eno INT PRIMARY KEY,
    ename VARCHAR(50),
    bdate DATE,
    title VARCHAR(30),
    salary INT,
    dno VARCHAR(10),
    FOREIGN KEY (dno) REFERENCES dept(dno)
);

-- Create PROJ Table
CREATE TABLE proj (
    pno INT PRIMARY KEY,
    pname VARCHAR(50),
    budget INT,
    dno VARCHAR(10),
    FOREIGN KEY (dno) REFERENCES dept(dno)
);

-- Create WORKSON Table
CREATE TABLE workson (
    eno INT,
    pno INT,
    resp VARCHAR(50),
    hours INT,
    FOREIGN KEY (eno) REFERENCES emp(eno),
    FOREIGN KEY (pno) REFERENCES proj(pno)
);
```

✅ Step 2: Insert Sample Data

```
-- Insert into DEPT
```

```

INSERT INTO dept (dno, dname, mgreno) VALUES
('D1', 'Consulting', 101),
('D2', 'Production', 102),
('D3', 'Support', 103);

-- Insert into EMP
INSERT INTO emp (eno, ename, bdate, title, salary, dno) VALUES
(201, 'Ravi', '1990-05-15', 'Manager', 7000, 'D1'),
(202, 'Anjali', '1992-03-10', 'Developer', 6500, 'D1'),
(203, 'Meera', '1991-07-22', 'Tester', 3000, 'D2'),
(204, 'Amit', '1993-09-18', 'Analyst', 4500, 'D2');

-- Insert into PROJ
INSERT INTO proj (pno, pname, budget, dno) VALUES
(1, 'Banking', 90000, 'D2'),
(2, 'Retail', 60000, 'D1'),
(3, 'CRM', 40000, 'D3');

-- Insert into WORKSON
INSERT INTO workson (eno, pno, resp, hours) VALUES
(201, 2, 'Lead', 20),
(202, 2, 'Developer', 25),
(203, 1, 'Tester', 120),
(204, 1, 'Support', 110);

```

SQL Queries

1) Employee numbers and salaries in 'Consulting' department (descending salary)

```

SELECT e.eno, e.salary
FROM emp e
JOIN dept d ON e.dno = d.dno
WHERE d.dname = 'Consulting'
ORDER BY e.salary DESC;

```

2) Employee name, project name, employee title, and hours for all works on records

```

SELECT e.ename, p.pname, e.title, w.hours
FROM workson w
JOIN emp e ON w.eno = e.eno
JOIN proj p ON w.pno = p.pno;

```

3) Employees with salary between 1000 and 8000

```

SELECT *

```

```
FROM emp  
WHERE salary BETWEEN 1000 AND 8000;
```

4) List all project names

```
SELECT pname  
FROM proj;
```

5) Employee(s) working on project "Banking" in "Production" department for 120 hours

```
SELECT e.ename, e.title, w.hours  
FROM emp e  
JOIN workson w ON e.eno = w.eno  
JOIN proj p ON w.pno = p.pno  
JOIN dept d ON p.dno = d.dno  
WHERE p.pname = 'Banking' AND d.dname = 'Production' AND w.hours =  
120;
```