```
/* ------------------------------------------------------
   ASSIGNMENT 3 - EMPLOYEE SCHEMA (FULL WORKING CODE)
   ------------------------------------------------------ */

-- 1. Create Database
CREATE DATABASE employee_a3;
USE employee_a3;

-- 2. Create Tables

CREATE TABLE Dept (
    Dept_id INT PRIMARY KEY,
    Dept_name VARCHAR(30),
    location VARCHAR(30)
);

CREATE TABLE Employee (
    Emp_id INT PRIMARY KEY,
    Dept_id INT,
    Emp_fname VARCHAR(30),
    Emp_lname VARCHAR(30),
    Emp_Position VARCHAR(30),
    Emp_salary INT,
    Emp_JoinDate DATE,
    FOREIGN KEY (Dept_id) REFERENCES Dept(Dept_id)
);
```

```
CREATE TABLE Project (
    Proj_id INT PRIMARY KEY,
    Dept_id INT,
    Proj_Name VARCHAR(40),
    Proj_Location VARCHAR(30),
    Proj_cost INT,
    Proj_year INT,
    FOREIGN KEY (Dept_id) REFERENCES Dept(Dept_id)
);

-- 3. Insert Sample Data

INSERT INTO Dept VALUES
(10, 'IT', 'Pune'),
(20, 'HR', 'Mumbai'),
(30, 'Finance', 'Hyderabad'),
(40, 'Sales', 'Delhi');

INSERT INTO Employee VALUES
(1, 10, 'Rohan', 'Shah', 'Developer', 45000, '2018-06-10'),
(2, 10, 'Priya', 'Kale', 'Tester', 40000, '2019-04-12'),
(3, 20, 'Amit', 'Patil', 'Manager', 60000, '2015-09-20'),
(4, 30, 'Sneha', 'More', 'Analyst', 50000, '2017-12-18'),
(5, 40, 'Karan', 'Yadav', 'Sales Executive', 35000, '2020-01-05');
```

```
INSERT INTO Project VALUES
(101, 10, 'AI System', 'Pune', 60000, 2020),
(102, 20, 'HR Portal', 'Mumbai', 25000, 2015),
(103, 30, 'Finance Tracker', 'Hyderabad', 40000, 2018),
(104, 40, 'Sales CRM', 'Delhi', 50000, 2015),
(105, 10, 'ML Tool', 'Chennai', 70000, 2008);



/* ------------------------------------------------------
   ASSIGNMENT QUERIES
   ------------------------------------------------------ */

-- 1. Employee + Dept details using NATURAL JOIN
SELECT *
FROM Employee
NATURAL JOIN Dept;

-- 2. emp_fname, position, location, join date (same Dept)
SELECT e.Emp_fname, e.Emp_Position, d.location, e.Emp_JoinDate
FROM Employee e
JOIN Dept d ON e.Dept_id = d.Dept_id;

-- 3. Employee + Project (NOT IN 'Hyderabad')
SELECT e.*, p.Proj_id, p.Proj_cost
FROM Employee e
JOIN Project p ON e.Dept_id = p.Dept_id
```

```
WHERE p.Proj_Location NOT IN ('Hyderabad');

-- 4. Dept name, employee full name, position for project year 2020
SELECT d.Dept_name,
    CONCAT(e.Emp_fname, ' ', e.Emp_lname) AS Employee_Name,
    e.Emp_Position
FROM Employee e
JOIN Dept d ON e.Dept_id = d.Dept_id
JOIN Project p ON e.Dept_id = p.Dept_id
WHERE p.Proj_year = 2020;

-- 5. emp_position, Dept_name where Project cost > 30000
SELECT e.Emp_Position, d.Dept_name
FROM Employee e
JOIN Dept d ON e.Dept_id = d.Dept_id
JOIN Project p ON e.Dept_id = p.Dept_id
WHERE p.Proj_cost > 30000;

-- 6. Names of all Projects started in 2015
SELECT Proj_Name
FROM Project
WHERE Proj_year = 2015;

-- 7. Dept_name having exactly 10 employees
SELECT d.Dept_name, COUNT(e.Emp_id) AS no_of_emp
FROM Dept d
```

```
LEFT JOIN Employee e ON d.Dept_id = e.Dept_id
GROUP BY d.Dept_id
HAVING COUNT(e.Emp_id) = 10;

-- 8. Total employees with project year < 2009
SELECT COUNT(DISTINCT e.Emp_id) AS total_employees
FROM Employee e
JOIN Project p ON e.Dept_id = p.Dept_id
WHERE p.Proj_year < 2009;

-- 9. Create View (Employee + Dept)
CREATE VIEW emp_dept_view AS
SELECT e.Emp_id, e.Emp_fname, e.Emp_lname, e.Emp_Position,
    d.Dept_name, d.location
FROM Employee e
JOIN Dept d ON e.Dept_id = d.Dept_id;

-- 10A. Insert into View
INSERT INTO emp_dept_view
(Emp_id, Emp_fname, Emp_lname, Emp_Position, Dept_name, location)
VALUES (200, 'Rohit', 'Patil', 'Developer', 'IT', 'Pune');

-- 10B. Update View
UPDATE emp_dept_view
SET Emp_Position = 'Senior Developer'
WHERE Emp_id = 200;
```

```
-- 10C. Delete from View

DELETE FROM emp_dept_view

WHERE Emp_id = 200;


-- 10D. Drop View

DROP VIEW emp_dept_view;
```