SQL Task: Practice with Views

Objective

Create and manage views using real-world-style employee and department data.

Step 1: Create and Populate Tables

Employees Table:

```
CREATE TABLE Employees (
    EmpID INT PRIMARY KEY,
    Name VARCHAR(100),
    Salary INT,
    DeptID INT
);

INSERT INTO Employees (EmpID, Name, Salary, DeptID)
VALUES
    (1, 'Alice', 60000, 101),
    (2, 'Bob', 45000, 102),
    (3, 'Charlie', 75000, 101),
    (4, 'Diana', 50000, 103),
    (5, 'Eve', 68000, 102);
```

Departments Table:

```
CREATE TABLE Departments (
    DeptID INT PRIMARY KEY,
    DeptName VARCHAR(100),
    Location VARCHAR(100)
);

INSERT INTO Departments (DeptID, DeptName, Location)
VALUES
    (101, 'Engineering', 'New York'),
```

(102, 'Sales', 'Chicago'),

(103, 'HR', 'San Francisco');

Step 2: Your Tasks

1. Create a View `HighEarners`

   - Show employee `Name` and `Salary` for employees earning more than 60,000.

2. Create a View `EmpDepartmentInfo`

   - Join Employees and Departments tables.

   - Show: `Name`, `Salary`, `DeptName`, `Location`.

3. Create a View `ChicagoEmployees`

   - Show employees working in the Chicago department.

4. Update the View `HighEarners`

   - Modify it to also include `DeptID`.

5. Try to Update Data Through View

   - Try updating an employee's salary through the `HighEarners` view.

   - Was it allowed? Why or why not?

6. Delete the View `ChicagoEmployees`

   - Use `DROP VIEW`.

Bonus Challenge

Create a view `DepartmentStats` that shows:

- `DeptName`

- Number of employees in each department

(Hint: Use `GROUP BY` and `COUNT()`)