SQL ASSIGNMENT

Firstly, create a database named assignment and then select it.

Then create tables and insert values using the following statements.

-- Create the Departments table

CREATE TABLE Departments (

DepartmentID INT PRIMARY KEY,

DepartmentName VARCHAR(50)

);

-- Create the Employees table

CREATE TABLE Employees (

EmployeeID INT PRIMARY KEY,

FirstName VARCHAR(50),

LastName VARCHAR(50),

DepartmentID INT,

Salary DECIMAL(10, 2),

FOREIGN KEY (DepartmentID) REFERENCES Departments(DepartmentID)

);

-- Insert data into Departments table

INSERT INTO Departments (DepartmentID, DepartmentName) VALUES

(1, 'Human Resources'),

(2, 'Finance'),

(3, 'Engineering'),

(4, 'Marketing');

-- Insert data into Employees table

INSERT INTO Employees (EmployeeID, FirstName, LastName, DepartmentID, Salary) VALUES

(101, 'John', 'Doe', 1, 60000),

(102, 'Jane', 'Smith', 2, 75000),

(103, 'Emily', 'Jones', 3, 90000),

(104, 'Michael', 'Brown', 1, 65000),

(105, 'Sarah', 'Davis', 2, 80000),

(106, 'David', 'Wilson', 3, 95000),

(107, 'Chris', 'Johnson', 4, 70000);

Write SQL queries to perform the following tasks using JOIN operations:

# JOINS

1. Retrieve a list of all employees along with their respective department names.
2. Find the total salary expenditure for each department.
3. List the names of employees who work in the 'Engineering' department.
4. Retrieve the department names and the number of employees in each department.
5. Find the employees whose salary is greater than the average salary of their respective departments.

# Nested Select Queries

1. Find the employees who earn more than the average salary in their department.
2. Retrieve the departments that have more than one employee with a salary greater than $70,000.
3. Find the name of the department where the highest-paid employee work.

# GROUP BY:

1. Find the average salary of employees in each department where the department has more than two employees
2. List the total salary expenditure for each department where the total salary is more than $150,000
3. Retrieve the number of employees in each department where the average salary is above $70,000.
4. Find the departments with an average salary greater than $75,000.
5. List the departments where the total number of employees is less than 3
6. Find the names of departments and their total salary expenditure where the total salary expenditure is more than $160,000

# SQL Procedures

1. Create a simple procedure to retrieve all employees
2. Create a procedure to add a new employee
3. Create a procedure to update an employee's salary
4. Create a procedure to delete an employee
5. Create a procedure to get employees by department
6. Create a procedure to get the total salary expenditure of a department
7. Create a procedure to list departments with more than a specified number of employees
8. Create a procedure to give a raise to employees in a department
9. Create a procedure to get the highest paid employee in each department
10. Create a procedure to get employee count and average salary for each department: