Database Management System Laboratory

(MCA 291)

Assignment – 3

1. Write a SQL query to find the total number of employees in each department.

```
SELECT d.department_name, COUNT(e.employee_id) AS total_employees
FROM employees e
JOIN departments d ON e.department_id = d.department_id
GROUP BY d.department_name;
```

	DEPARTMENT_NAME	TOTAL_EMPLOYEES
1	HR	2
2	IT	2
3	Finance	1

2. Write a query to find the average salary for each department.

```
SELECT d.department_name, AVG(s.salary) AS average_salary
FROM employees e
JOIN salaries s ON e.employee_id = s.employee_id
JOIN departments d ON e.department_id = d.department_id
GROUP BY d.department_name;
```

	DEPARTMENT_NAME	AVERAGE_SALARY
1	HR	55000
2	IT	73500
3	Finance	90000

3. Find the department with the highest total salary payout.

```
SELECT d.department_name, SUM(s.salary) AS total_salary_payout
FROM employees e
JOIN salaries s ON e.employee_id = s.employee_id
JOIN departments d ON e.department_id = d.department_id
GROUP BY d.department_name
ORDER BY total_salary_payout DESC
LIMIT 1;
```

	DEPARTMENT_NAME	TOTAL_SALARY_PAYOUT
1	IT	147000
2	HR	110000
3	Finance	90000

4. Find the employee with the highest salary and display their name and department.

```
SELECT e.name, d.department_name, s.salary
FROM employees e
JOIN salaries s ON e.employee_id = s.employee_id
JOIN departments d ON e.department_id = d.department_id
WHERE s.salary = (SELECT MAX(salary) FROM salaries);
```

	NAME	DEPARTMENT_NAME	SALARY
1	David	Finance	90000

5. Find the total number of employees, average salary, and highest salary in the company.

```
SELECT COUNT(e.employee_id) AS total_employees,
AVG(s.salary) AS average_salary,
MAX(s.salary) AS highest_salary
FROM employees e
JOIN salaries s ON e.employee_id = s.employee_id;
```

	TOTAL_EMPLOYEES	AVERAGE_SALARY	HIGHEST_SALARY
1	5	69400	90000

6. Find Departments Where the Average Salary is Higher Than 70,000.

```
SELECT d.department_name, AVG(s.salary) AS average_salary
FROM employees e
JOIN salaries s ON e.employee_id = s.employee_id
JOIN departments d ON e.department_id = d.department_id
GROUP BY d.department_name
HAVING AVG(s.salary) > 70000;
```

	DEPARTMENT_NAME	AVERAGE_SALARY
1	IT	73500
2	Finance	90000

7. Total and Average Salary for Each Department, Showing Only Departments with More Than One Employee.

```
SELECT d.department_name, COUNT(e.employee_id) AS total_employees,
      SUM(s.salary) AS total_salary,
AVG(s.salary) AS average_salary
FROM employees e
JOIN salaries s ON e.employee_id = s.employee_id
JOIN departments d ON e.department_id = d.department_id
GROUP BY d.department_name
HAVING COUNT(e.employee_id) > 1;
```

	DEPARTMENT_NAME	TOTAL_EMPLOYEES	TOTAL_SALARY	AVERAGE_SALARY
1	HR	2	110000	55000
2	IT	2	147000	73500