

## **Assignment 6:**

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**Task 1:** Using Comparison and Logical Operators

**Write a SQL query to retrieve the emp\_id, last\_name, and salary of employees whose salary is between 2,000 and 5,000 and do not have a manager ID of 101 or 200.**

- 1. Use the SELECT statement to specify the columns: emp\_id, last\_name, and salary.**
- 2. Filter the results using the WHERE clause with the BETWEEN operator to set the salary range.**
- 3. Use the NOT IN clause to exclude certain manager IDs.**
- 4. Combine conditions using the AND logical operator.**

```
SELECT emp_id, last_name, salary
FROM employees
WHERE salary BETWEEN 2000 AND 5000
AND manager_id NOT IN (101, 200);
```

**Task 2: Using JOINS and Aliases**

**Write a SQL query to display the employee names along with their respective department names.**

**Use aliases for table names for better readability.**

- 1. Use the SELECT statement to specify the columns: employee.name and department.name.**
- 2. Use the FROM clause to include the tables employees and departments.**
- 3. Use an INNER JOIN to connect the employees and departments tables based on the department IDs.**
- 4. Use table aliases (e.g., e for employees, d for departments) to shorten the table names in the query.**
- 5. Order the results by department name in ascending order.**

```
SELECT e.emp_name AS employee_name, d.dep_name AS department_name
FROM employees e
INNER JOIN departments d
ON e.department_id = d.department_id
ORDER BY d.name ASC;
```

### **Task 3: Aggregate Functions and GROUP BY**

Write a SQL query to find the number of employees and the average salary for each department.

Ensure that the results are grouped by department ID.

- 1. Use the SELECT statement to specify the department ID, the count of employees, and the average salary.**
- 2. Use the GROUP BY clause to group the results by department ID.**
- 3. Use the COUNT() function to find the number of employees in each department.**
- 4. Use the AVG() function to calculate the average salary in each department**

```
SELECT department_id,  
       COUNT(emp_id) AS number_of_employees,  
       AVG(salary) AS average_salary  
FROM employees  
GROUP BY department_id;
```