Task 1: Using Comparison and Logical Operators

Question:

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.

Instructions:

- 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.

Task 2: Using JOINs and Aliases

Ouestion:

Write a SQL query to display the employee names along with their respective department names. Use aliases for table names for better readability.

Instructions:

- 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 ${\tt employees}$ and ${\tt departments}$ 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.

Task 3: Aggregate Functions and GROUP BY

Question:

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.

Instructions:

- 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 ${\tt COUNT}$ () function to find the number of employees in each department.
- 4. Use the AVG () function to calculate the average salary in each department.