Scenario MySQL Set Question 1

Scenario 1: Employee Salary Analysis

Question:
Find the names and salaries of employees who earn more than the average salary in the company.

Logic:

1. Calculate the average salary from company, “AVG()” function
2. Use “select” function display the employee’s name and salary
3. Use “where” function condition check employee’s salary more than average salary

Scenario 2: Customer Orders without Matching Records

Question:
Retrieve a list of customer names who have not placed any orders.

Logic:

1. Use “select” function displace customer name and order placed
2. Use “where” function conditional check order placed “is null” function

Scenario 3: Product Sales Summary

Question:
Display the total sales amount for each product.

Logic:

1. Use “select” for displace product name and calculate total sales for each product “SUM(sales amount)”
2. Use “group by” product name

Scenario 4: Department-Wise Employee Count

Question:
List each department name with the number of employees working in it.

Logic:

1. Perform a LEFT JOIN between the employees table and the departments table using the department_id.
2. Use the COUNT() function to count the number of employees in each department.
3. Apply a GROUP BY on the department_name to aggregate the data.
4. Select the department name and the employee count.

Scenario 5: Top 3 Highest Sales

Question:
Find the top 3 highest sales transactions.

Logic:

1. Select the necessary columns like `sale_id`, `customer_id`, and `amount` from the `sales` table.
2. Use the `ORDER BY` clause on the `amount` column in descending order to list the highest sales first.
3. Use `LIMIT 3` to restrict the output to the top 3 records.

Scenario 6: Calculate Employee Salary Ranks by Department

Question:
Write a query to display each employee's name, department name, salary, and their salary rank within their respective department.

Logic:

1. Use the RANK() window function to rank employees based on their salary within each department.
2. Perform an INNER JOIN to combine employee data with department information using `department_id`.
3. Display employee details with their salary rank using the ORDER BY clause.