**Day- 5 SQL Practices session**

**1. Rank Employees by Salary within Each Department**

**Question:** Retrieve each employee's first name, department ID, salary, and their rank within their department based on salary (highest salary gets rank 1).

**2. Calculate Running Total of Salaries in Each Department**

**Question:** Find the cumulative sum of salaries for each department.

**3. Find the Difference Between an Employee’s Salary and the Department Average**

**Question:** Show the employee’s salary and the difference from the average salary in their department.

**4. Assign Row Numbers to Employees Based on Hire Date**

**Question:** Assign a unique row number to employees based on their hiring date within each department (earliest hired gets rank 1).

**5. Find the Top 3 Highest Salaries in Each Department**

**Question:** Retrieve employees with the **top 3 salaries** in each department.

**6. Calculate Percentage Contribution of Each Employee's Salary to Their Department's Total Salary**

**Question:** Find each employee’s salary as a percentage of their department's total salary.

**7. Find the Previous Employee’s Salary in Each Department**

**Question:** Retrieve each employee’s salary along with the **previous** employee’s salary in the same department.

**8. Find the Next Employee’s Salary in Each Department**

**Question:** Retrieve each employee’s salary along with the **next** employee’s salary in the same department. (next employee means **next row’s salary** **within the same department**)

**9. Find Employees Who Earn More Than the Department's Average Salary**

**Question:** List employees whose salary is higher than the **average salary of their department**.

**10. Find the Length of Employment for Each Employee**

**Question:** Calculate the number of days each employee has worked since their hire date.

These questions will help you master **window functions** **like RANK(), DENSE\_RANK(), ROW\_NUMBER(), SUM(), AVG(), LAG(), and LEAD()**, while also reinforcing **partitioning and ordering concepts.**