

Day 26 – SQL Practice Reflection

Today's challenge focused on HR and Payroll Analytics. The dataset included employees, departments, salaries, and leave records. Each question tested practical SQL skills commonly used in payroll, HR analytics, and business intelligence roles.

Key Learnings

- Strengthened confidence in payroll and employee management use cases using SQL.
- Used multiple types of JOINS to combine salary and leave data across months.
- Applied ranking functions like RANK(), DENSE_RANK(), and ROW_NUMBER().
- Used LEFT JOIN + IS NULL technique to detect missing values.
- Practiced GROUP BY with conditional filtering using HAVING.

Personal Takeaways

1. 9th question was tough to implement but I was able to decide the right function on my own using LEFT JOIN and NULL check.
2. Bonus challenge was confusing initially but I learned to use DENSE_RANK within a CTE to isolate top departments.
3. Reinforced the importance of window functions in salary-based ranking problems.
4. Used structured logic and JOIN filtering techniques to differentiate between employees active in different months.

Day 26 tested advanced understanding of business queries, especially those resembling real-world payroll systems. Despite logical challenges in the latter part, consistent daily practice made implementation faster and clearer.