

Day 7 SQL Practice – Employees, Projects & Timesheets Dataset

Day 7 turned out to be a two-part journey — I could complete only half the questions yesterday and wrapped up the rest today. The queries were not overly tough but certainly demanded more attention to detail and logic, especially with joins, ranking functions, and real-world modeling.

Reflections & Learning Highlights

- Practiced joining three tables and explored different JOIN types (INNER, LEFT) depending on what the question demanded.
- Understood how to handle employees without time logs using LEFT JOIN and filtering NULLs.
- Clarified the use of aggregate functions like SUM, COUNT(DISTINCT), and AVG in both employee- and project-based summaries.
- Dug deeper into grouping logic, especially when needing grouped results by both employee and project.
- Learnt to use HAVING to filter group results (e.g., employees on multiple projects).
- Explored RANK() and DENSE_RANK() functions to sort and partition employee hours within departments.
- Bonus challenge taught me how to structure CTEs with window functions — very useful for role-based top performers.
- Gained more confidence in reading business-style query questions and identifying what kind of JOIN, GROUP BY, or filter would suit the answer.

Key Takeaway from Day 7

SQL is starting to feel more like problem solving and less like code writing. While today wasn't too tough, it demanded focus and clean logic. The habit of breaking down each query logically before writing it has helped me avoid errors and speed up debugging.