Day 25 – SQL Practice Reflection

📅 Day: 25

📘 Theme: University Database Analytics

🔍 Focus: Academic performance, course popularity, and departmental efficiency

🔄 Key Learnings & Improvements

1. Learned a new technique in the 3rd question for grade-to-numeric conversion using CASE logic.

2. Faced difficulty with the 7th question – department-level grade distribution needed strong grouping and conditionals.

3. The 9th question involved complex logical filtering using NOT EXISTS and EXISTS – great practice!

4. The bonus challenge was extremely tough and involved calculating average scores, grading logic, and ranking – a solid real-world analytical task.

🗡️ SQL Concepts Practiced

- JOINs (INNER, LEFT JOIN)
- GROUP BY with aggregation
- HAVING vs WHERE usage
- CASE statements for grade calculations
- EXISTS, NOT EXISTS logic
- Ranking with DENSE_RANK
- Subqueries and CTEs

💡 Personal Insights

The complexity of today's questions, especially questions 7, 9, and the bonus, pushed me to think deeply. The variety in query structure and logic was a strong simulation of real-world data analytics scenarios.

☑️ Progress Note

Despite the challenge, I managed to solve all questions with improved confidence. Every day's practice is clearly sharpening my logic, query structuring skills, and analytical thinking.