

Reflection Report – Day 13 SQL Practice

Topic Overview

Today's practice involved working with a relational database consisting of four interconnected tables — Customers, Products, Orders, and OrderDetails. The goal was to extract insights using SQL joins, aggregation, subqueries, and ranking functions.

Overall Reflection

Today's set of SQL questions was straightforward and logic-based. I was able to solve all of them independently, which boosted my confidence. The tasks helped reinforce key concepts such as joins, groupings, filtering with conditions, and using window functions like RANK().

Highlights & Learnings

Index	Query Focus	Key Learning
1	Product listing	Simple SELECT and table scan
2	Total quantity sold	Used LEFT JOIN and SUM with GROUP BY
3	Revenue by product	Revenue = Price × Quantity using aggregate SUM
4	Top 3 best-selling	TOP clause with ORDER BY and GROUP BY
5	Customer spend	JOIN with SUM to get spending per customer
6	Popular category	Grouped SUM and TOP 1 with ORDER BY
7	USA orders count	JOIN with filter condition on country
8	Average order value	GROUP BY country with AVG and ROUND
9	Never ordered products	LEFT JOIN + WHERE IS NULL technique
10	Top product per category	CTE with RANK() to find highest by revenue

Bonus Question Reflection

The bonus challenge asked for the product with the highest average units sold per order. While the logic was simple, it took some time to structure the query carefully with AVG, COUNT, and GROUP BY. This question tested my ability to derive metrics per grouped entity.

Final Thoughts

Today's session felt smooth and satisfying. Being able to solve everything without help indicates improved confidence and deeper understanding of SQL. Excited to take on more complex datasets and queries in the next sessions.