Day 4 SQL Practice – Products, Orders & Suppliers Dataset

Today was definitely the most challenging day so far in my SQL practice journey. I worked with a three-table dataset and tackled problems involving multiple joins, aggregation, and advanced ranking. There were moments I felt stuck, especially when choosing between SUM and COUNT, or when trying to implement DENSE_RANK(). But that's exactly where the learning happened — through the struggle and the willingness to dig deeper.

🔍 Reflections & Query Breakdown

1. List all products with supplier name and city

This was a good warm-up. I joined Products with Suppliers using SupplierID. A clean and rewarding start.

2. Total quantity ordered per product

Used JOIN and GROUP BY, and learned the importance of using SUM instead of COUNT for numerical totals.

3. Total sales amount for each category

Joined Orders with Products, used Quantity × Price logic. This made me appreciate how real-world sales data works.

4. Suppliers of unordered products

Used LEFT JOIN + IS NULL logic. I recognized this pattern from Day 2 and applied it confidently here.

5. Highest-priced product from each category

Tried both subquery and window function (ROW_NUMBER()). It was satisfying to explore both methods and understand the difference.

6. Orders with total amount > 10,000

Added Quantity × Price logic in WHERE clause. This made me think carefully about filtering computed columns.

7. Number of products supplied by each supplier

Simple GROUP BY and COUNT query. Got this right in one go — felt encouraging after the earlier struggles.

8. Orders from September 2022

Filtered using BETWEEN on dates and joined category info. A good practice in date functions.

9. City that supplies the most ordered product

Used aggregation + TOP 1 logic. Took a few tries but eventually worked it out with confidence.

10. Total value of products each supplier has supplied

Combined joins, multiplication, and GROUP BY. A great exercise to bring multiple concepts together.

Bonus: Rank categories by total sales

Had no idea how to begin at first. Researched and learned DENSE_RANK() with CTE — and it finally made sense. Felt like a real win!

Key Takeaways from Day 4

- The difference between SUM() and COUNT() is more subtle than I thought — now it's clear.
- DENSE_RANK() was a complete unknown for me, but I took the time to learn it and made it work.
- I'm proud of how I approached a tough day — by pausing, learning, and not giving up.
- Real learning happens when you're uncomfortable — and today I truly felt that.