📘 Day 61 SQL Practice Reflection

Today's practice focused on **E-commerce + Marketing Campaign Analytics**, combining concepts of customer purchases, product categories, campaign performance, and advanced SQL techniques like window functions and multi-step CTEs.

✅ Progress & Learnings

1. **Questions 1–4**

   - Solved easily and confidently.

   - Revenue per category, multi-category customers, AOV (Average Order Value), and campaign conversion rates were straightforward.

2. **Questions 5–6**

   - Top products by revenue was simple.

   - Identifying customers who responded *Interested* but didn't purchase required careful use of LEFT JOIN with date ranges — solved smoothly.

3. **Question 7**

   - Monthly revenue and **MoM growth %** calculation felt intuitive now with LAG().

   - Used CASE to mark growth/decline trends.

4. **Question 8**

   - Ranking customers within their city by spending became easy with DENSE_RANK().

   - City-level partitions were clear in logic.

5. **Question 9**

   - Products ordered but never targeted in campaigns highlighted gaps in marketing coverage.

   - Learned the value of LEFT JOIN + NULL filtering again.

6. **Question 10**

   - Identifying above-average spenders was straightforward using a subquery with AVG().

7. **Question 11 (Bonus Challenge)**

   - The toughest query so far.

   - Built a **multi-step CTE pipeline** (conversion, revenue impact, baseline, effectiveness).

   - Used ranking, normalization, and weighted scoring to detect the **most effective campaign**.

   - Could not solve independently — required significant reference and debugging.

🔑 Key Takeaways

- Confident with **CTEs, window functions, and aggregation**.

- Realized the **importance of baseline comparisons** (before vs during campaigns).

- Bonus problem pushed me to think like a **business analyst** — combining KPIs like conversion and revenue growth.

- Writing queries entirely by myself post-Day 60 is harder, but I see it as part of growth.

📊 Self-Reflection

- Bonus was the **toughest challenge so far** — but also the most rewarding learning.

- I'm trying to push myself to write queries independently after Day 60's performance — it's not easy, but it's shaping resilience.

- Feeling a mix of frustration and progress — SQL is now less about "just queries" and more about **connecting data to business impact**.

✨ Moving forward: I will **revisit bonus queries** regularly to strengthen logic and avoid over-reliance on references.