**🧠 SQL Problems (30 Realistic Tasks)**

**🔹 Level 1 – Basic (Foundational)**

1. List all unique customer segments.
2. Count total orders placed by each customer.
3. Find the total sales per region.
4. Get the list of products with zero profit.
5. Find all orders placed in January 2024.

**🔹 Level 2 – Intermediate (Joins + Aggregation)**

1. Find top 5 products by total sales.
2. Show total quantity and sales per category.
3. Calculate average discount per sub-category.
4. Find customers who purchased more than 5 unique products.
5. Identify the region with the highest total profit.

**🔹 Level 3 – Advanced SQL**

1. Use **window functions** to rank products by sales within each category.
2. Calculate **running total** of sales by month.
3. Get the **top customer per region** by total sales.
4. Create a **monthly sales trend** per product category.
5. Use **CASE** to classify products as "Low", "Medium", "High" profit margin.

**🔹 Level 4 – Resume Boosters (Complex Queries)**

1. Identify **churned customers** (no orders in the last 3 months).
2. Calculate **year-over-year growth** in sales.
3. Identify top 3 **most discounted** products per category.
4. Build a **sales funnel**: from order to profit per customer segment.
5. Flag orders that had **negative profit**.

**🔹 Level 5 – Business KPIs & Analysis**

1. Calculate **Customer Lifetime Value (CLV)**.
2. Analyze **sales contribution** of top 20% products (Pareto).
3. Identify **seasonal products** (high sales in specific months).
4. Compare **sales vs. profit** trends.
5. Find product categories with **increasing profit but decreasing sales**.

**🔹 Level 6 – Expert-Level (CTEs, Subqueries, Views)**

1. Write a **CTE** to filter customers with multiple orders in the same week.
2. Create a view for **monthly category-wise sales report**.
3. Find the **average time between two purchases** per customer.
4. Compare **average discount** between segments.
5. Create a **cohort analysis** table by first purchase month.