**10 Basic SQL Questions**

1. **List all products** with their categories and prices.
2. **Get names of all customers** from the city 'Mumbai'.
3. **List all sales records** with buy and sell dates.
4. **Find the total number of customers**.
5. **Get the total quantity sold** for each product.
6. **Show the distinct cities** where customers live.
7. **Get customer names and phones** who bought a product.
8. **List all sales where quantity > 2**.
9. **Get total sales transactions per customer**.
10. **Show product name and corresponding quantity sold** using JOIN.

**🔸 30 Advanced SQL Questions**

**🧠 Aggregation & Grouping**

1. Find the **total profit** (sell\_price - buy\_price) for each sale.
2. Calculate the **average sell price** per product category.
3. Get the **total revenue (sell\_price × quantity)** per product.
4. Which customer made the **highest number of purchases**?
5. List **products never sold**.
6. Find the **top 3 cities** by number of customers.
7. Show the **monthly sales volume** (based on sell\_date).
8. Find the **average profit per customer**.
9. Show **product-wise profit margins** as percentage.
10. Find customers who bought **more than 5 products in total**.

**🧩 Joins & Multi-table Queries**

1. Get the **product name, customer name**, and **profit** for each sale.
2. List customers who **bought Electronics products**.
3. Find the **total profit** for each category.
4. Get **customer name and number of unique products bought**.
5. Find **customers who bought more than one product** in one sale.
6. Show sales with **sell\_price < product's listed price** (from Product).
7. Find the **products bought by customers from 'Delhi'**.
8. List customers who have **never made a purchase**.
9. Show **latest sale** for each product.
10. Display **customer with highest total spending**.

**⛓️ Subqueries & Window Functions**

1. Find **products with above-average selling price**.
2. Show **profit of each sale and rank** them in descending order.
3. List **top 2 most sold products per category**.
4. Find **repeat customers** (who bought more than once).
5. Show the **running total of sales revenue per customer**.
6. Calculate **days between buy\_date and sell\_date** per sale.
7. Get **sales that happened in the last 7 days**.
8. List products where **sell price never exceeded listed price**.
9. **Compare buy and sell dates** to find same-day sales.
10. **Identify best selling product category** using revenue.

**🛠️ Complex Logic & CTEs**

1. Use a CTE to calculate **monthly revenue trend**.
2. Use a CASE statement to label profit as 'Low', 'Medium', 'High'.
3. Use a nested query to find **customer with most profit generated**.
4. Create a temporary table showing **total units sold by category**.
5. Write a query to **segment customers** into low, mid, high value based on total spend.
6. Find **how many times each product was resold**.
7. List products where **quantity sold per transaction > 2** consistently.
8. Find the **least profitable product**.
9. Use window functions to get **cumulative quantity sold per product**.
10. Generate a report showing:
    * customer\_name,
    * product\_name,
    * profit %,
    * total quantity bought,
    * days between buy and sell date.