**Level: 2nd Year Bachelor's in Computer Science (2025/2026)**
**MODULE: DATABASES**
**TD No 4: SQL**

Consider the following relational schema for sales

**PRODUCT** (**ProductID**, Name, Brand, Price, Quantity_in_Stock)

**CLIENT** (**ClientID**, F_Name, L_Name, Phone_Number, E-Mail, City)

**ORDER** (**OrderID**, # ClientID, OrderDate, TotalAmount)

**ORDER_LINE (# OrderID, #ProductID**, Quantity**)**

Express the following queries using SQL:

1. List all products with a stock quantity greater than 50.
2. Display the list of orders sorted by their total amount.
3. Display orders placed between January 1, 2023, and March 31, 2023.
4. Retrieve all orders placed during the year 2023.
5. Display products of brand HP or Sumsung or Apple using `IN`.
6. Display the top three products with the highest quantities in stock.
7. Display the number of products per brand.
8. Find the average price of Laptops of brand 'DELL'.
9. Show the number of orders per year in descending order.
10. Display the number of clients for each city.
11. Find the names of clients who live in the same city as 'Karim Abadi'.
12. Display the number of orders per month for the year 2022.
13. Retrieve the IDs of clients who have ordered at least one product of brand 'HP'.
14. Find the date with the highest purchase peak (in terms of quantities ordered).
15. Display clients who have placed at least three orders.
16. For each product (showing its name), display the number of times it has been purchased.
17. Retrieve the IDs of clients who have not placed any orders for products of brand 'HP'.
18. Display brands whose average product price is greater than 30,000 DZD.
19. Display clients who have placed at least one order
20. Retrieve the IDs of clients who have ordered only products of brand 'Sony'.
21. For each order, display the product ID, product name, price, client name, order date, and quantity.