Assignment Question

The following questions were AI generated difficult but insightful questions to analyse sales data from Northwind dataset

(<https://www.kaggle.com/datasets/emmanueltugbeh/northwind-orders-and-order-details>)

1. Write a query to find the top 5 customers by total number of orders made in the Northwind dataset.
2. For each order, what is the total quantity of products ordered and the total amount of discount applied?
3. What is the average unit price of products in each order?
4. How many products were ordered in each order?
5. In how many orders was a specific product (identified by product\_id) sold?
6. What is the average quantity of products ordered for each customer?
7. Identify the top 3 customers who made the most orders.
8. Calculate the total freight cost for each shipper (ship\_via).
9. List the orders that were shipped before the required date.
10. How many orders were placed in each year?
11. Find the orders placed by a specific customer (identified by customer\_id).
12. Identify the orders that were not shipped on time (shipped\_date > required\_date).
13. List the orders that were shipped to a specific country (ship\_country).
14. Calculate the average freight cost for orders that were shipped to each city (ship\_city).
15. Show the orders that were placed on weekends.
16. List the orders where the quantity of a specific product (identified by product\_id) is greater than the average quantity ordered for that product.
17. Identify the orders where the total cost (unit\_price \* quantity) exceeds a certain value.
18. Find the orders that were shipped using a specific shipper (ship\_via).
19. Calculate the total sales amount for each product based on the unit price, quantity, and discount.
20. List the orders where the customer's city and the order's shipping city are different.
21. Show the orders with the longest duration between order\_date and shipped\_date.
22. Identify the orders where the same product was ordered in consecutive orders.
23. Determine the orders with the highest and lowest total quantity of products ordered.
24. Show the orders that had the highest and lowest total cost (including freight).
25. Identify the last order date for each customer.
26. Calculate the average quantity of products ordered for each employee.
27. List the orders where the total cost (unit\_price \* quantity) is within a certain range.

These questions should provide a good range of challenging SQL operations to work on and showcase in your portfolio. Good luck!