****note use this link to install the mentioned database**

T-SQL End Project: Querying Microsoft® SQL Server®

Project Overview

This project aims to test your understanding and ability to write T-SQL statements for various tasks in SQL Server. You will use the Northwind database to complete this project. Ensure that your queries are optimized and return accurate results.

Project Requirements

You are required to write SQL statements for each of the following tasks:

1. Retrieve the list of all products with their respective categories and suppliers.
2. List all orders along with customer and employee details.
3. List the total number of orders for each customer, sorted by the number of orders in descending order. Include only customers with more than 10 orders.
4. Create a new table to store customer reviews with appropriate data types. Insert sample data into this table.
5. Update the unit price of all products in the 'Beverages' category by 10%.
6. Delete all orders placed before January 1, 1997.
7. Calculate the average unit price of products in each category.
8. Format the order date to 'DD-MM-YYYY' format for all orders.
9. Find the total sales amount (Quantity * Unit Price) for each employee, grouped by employee.
10. List products that have never been ordered.
11. Create a Common Table Expression (CTE) that lists the top 5 products by sales amount.
12. Combine the list of customers and suppliers into a single list of companies.
13. List the top 3 employees with the highest total sales.
14. Create a pivot table that shows the total sales amount for each category per year.
15. Write a stored procedure to retrieve the sales report for a given date range.
16. Write a T-SQL script to generate a monthly sales report and store it in a new table.
17. Modify the stored procedure from task 15 to include error handling for invalid date ranges.

18. Retrieve the details of the five most recent orders, including order date and customer details.
19. Write a query to find all customers who have placed more than five orders in the last year.
20. Write a query to find the average time (in days) between orders for each customer.
21. Create a view that shows the total quantity of each product sold per year.
22. Write a query to find the employees who have handled orders totaling more than $100,000 in sales.
23. Write a query to find the top three products with the highest total sales amount each month.
24. Create a function that returns the total sales amount for a given product.
25. Write a query to find all orders where the total order amount exceeds the average order amount.
26. Create an index to optimize the query performance for retrieving order details based on order date.
27. Write a query to find the percentage increase in total sales for each category from the previous year.