1.Task: Retrieve a List of Customers and Their Orders

Write a T-SQL query to retrieve a list of all customers along with their orders. Use a LEFT JOIN to include customers who have not placed any orders. Display customer information along with order details if available.

2.Task: List All Products with Suppliers

Create a T-SQL query to list all products and their corresponding suppliers. Use an INNER JOIN to ensure that only products with known suppliers are included. Display the product name and the supplier's name and contact details.

3.Task: Display Employees and Their Managers

Write a T-SQL query to display a hierarchical list of employees and their managers. Use a self-JOIN on an "Employees" table where each employee has a manager identified by a foreign key. Include employee names, job titles, and the names of their managers.

4.Task: Find Unmatched Records in Two Tables

Create a T-SQL query to identify records that exist in one table but not in another. Use a LEFT JOIN and a RIGHT JOIN to compare two tables (e.g., Table A and Table B) and find records that are present in one table but not in the other.

5.Task: Combine Customer and Order Information

Write a T-SQL query to retrieve a list of all customers, along with their order information. Use an INNER JOIN to link the "Customers" and "Orders" tables. Display customer details and the order date and total amount for each order.

6.Task: Full Join of Products and Orders

Create a T-SQL query that performs a FULL JOIN between the "Products" and "Orders" tables. List all products and their corresponding orders, including products with no orders and orders with no corresponding products. Display product names and order details when available.

7.Task: Display Students and Their Course Enrollments

Write a T-SQL query to display a list of all students along with their course enrollments. Use a LEFT JOIN to include all students, even those who are not enrolled in any courses. Display student names and the course names they are enrolled in, if applicable.

8.Task: Analyze Sales Data with Left Join

Create a T-SQL query to analyze sales data. Use a LEFT JOIN between the "Sales" and "Customers" tables to identify customers who have made purchases and those who have not. Calculate the total sales amount for each customer.