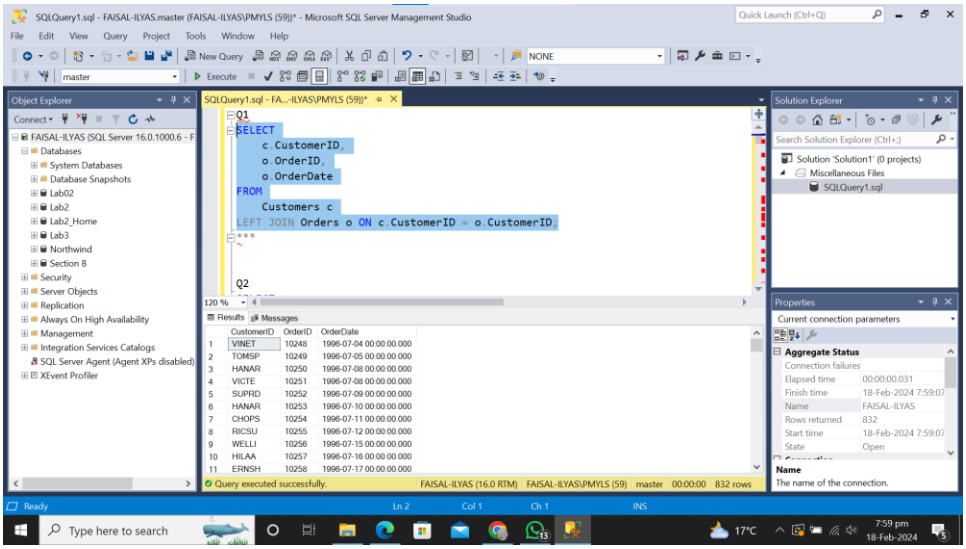
LAB 5

1. Return customers and their orders, including customers who placed no orders (CustomerID, OrderID, OrderDate)

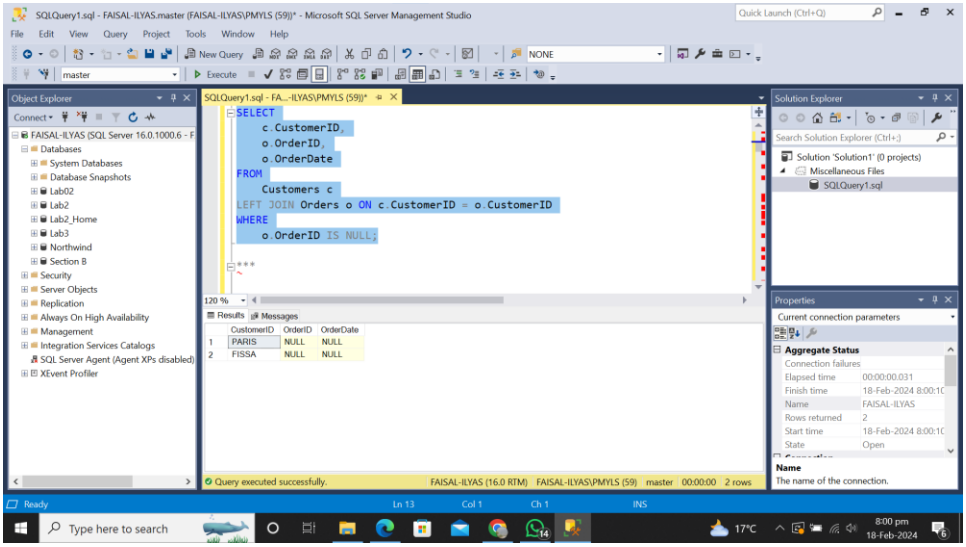
```
SELECT
    c.CustomerID,
    o.OrderID,
    o.OrderDate
FROM
    Customers c
LEFT JOIN Orders o ON c.CustomerID = o.CustomerID;
```



2. Report only those customer IDs who never placed any order. (CustomerID, OrderID, OrderDate)

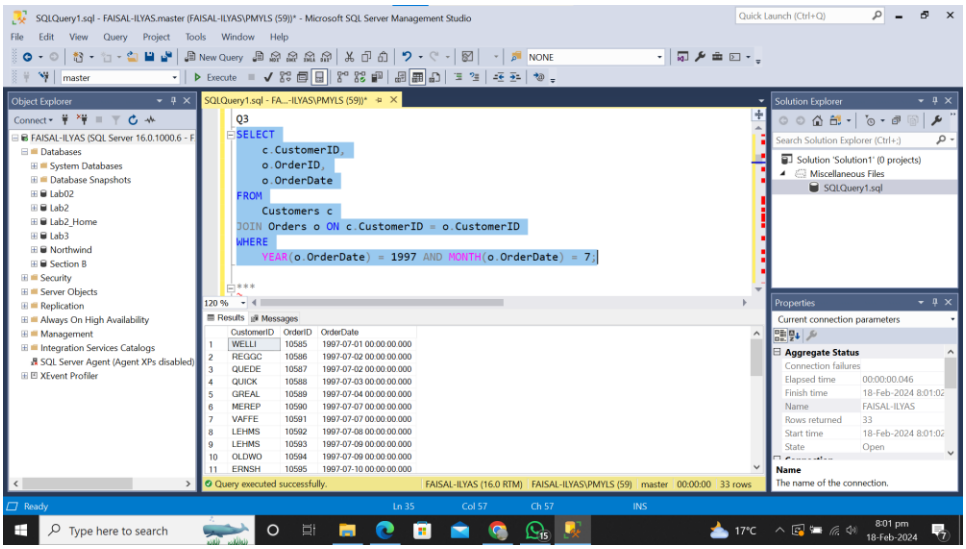
```
SELECT
    c.CustomerID,
    o.OrderID,
    o.OrderDate
FROM
    Customers c
LEFT JOIN Orders o ON c.CustomerID = o.CustomerID
WHERE
```

o.OrderID IS NULL;



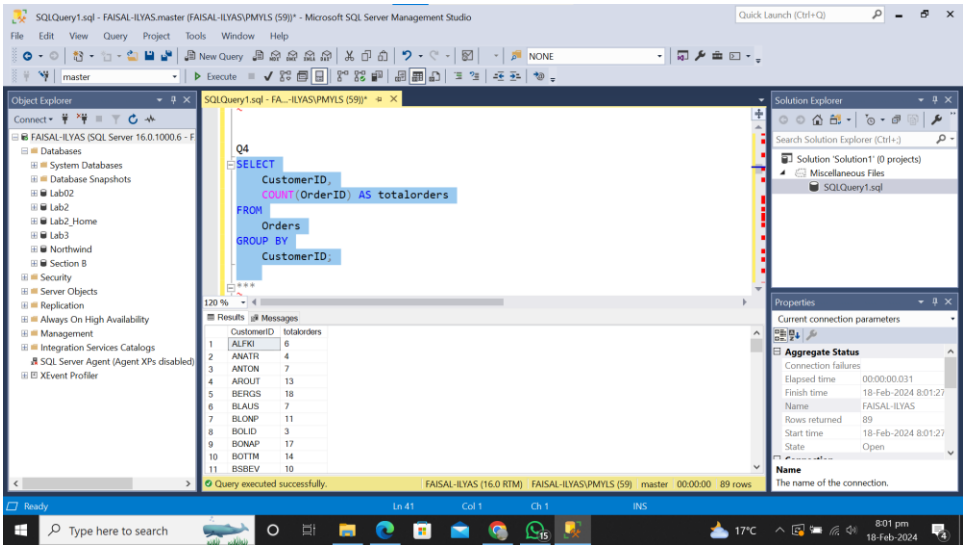
3. Report those customers who placed orders on July,1997. (CustomerID, OrderID, OrderDate)

```
SELECT
    c.CustomerID,
    o.OrderID,
    o.OrderDate
FROM
    Customers c
JOIN Orders o ON c.CustomerID = o.CustomerID
WHERE
    YEAR(o.OrderDate) = 1997 AND MONTH(o.OrderDate) = 7;
```



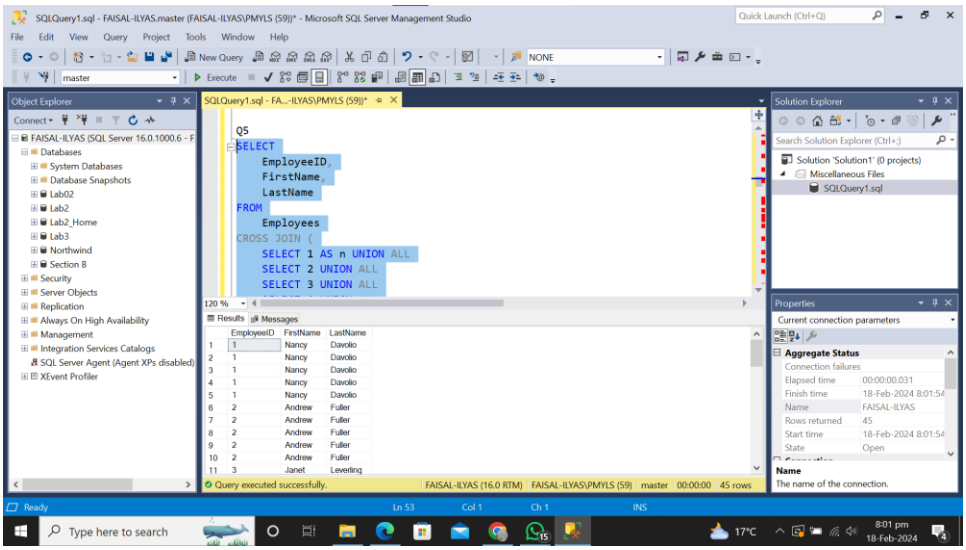
4. Report the total orders of each customer. (customerID, totalorders)

```
SELECT
    CustomerID,
    COUNT(OrderID) AS totalorders
FROM
    Orders
GROUP BY
    CustomerID;
```



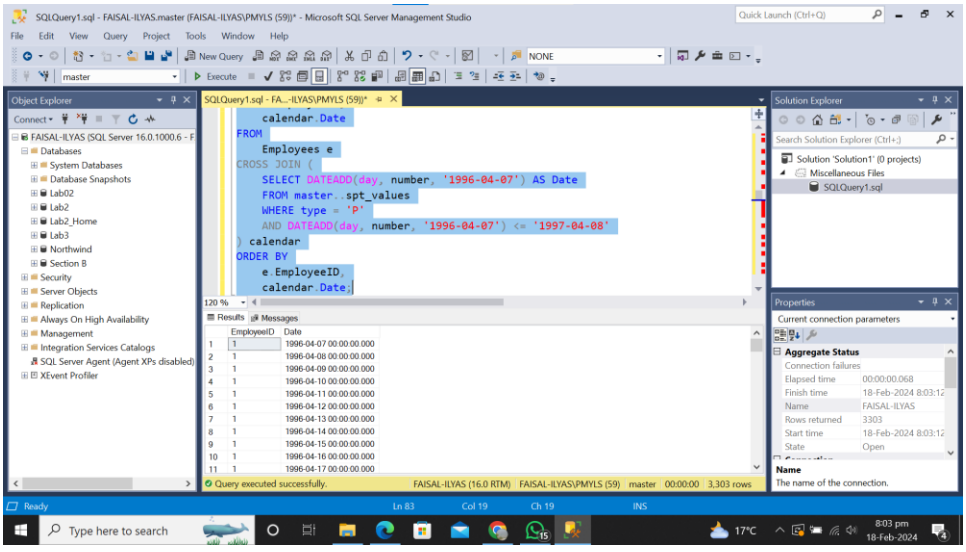
5. Write a query to generate a five copies of each employee. (EmployeeID, FirstName, LastName)

```
SELECT
    EmployeeID,
    FirstName,
    LastName
FROM
    Employees
CROSS JOIN (
    SELECT 1 AS n UNION ALL
    SELECT 2 UNION ALL
    SELECT 3 UNION ALL
    SELECT 4 UNION ALL
    SELECT 5
) AS copies;
```



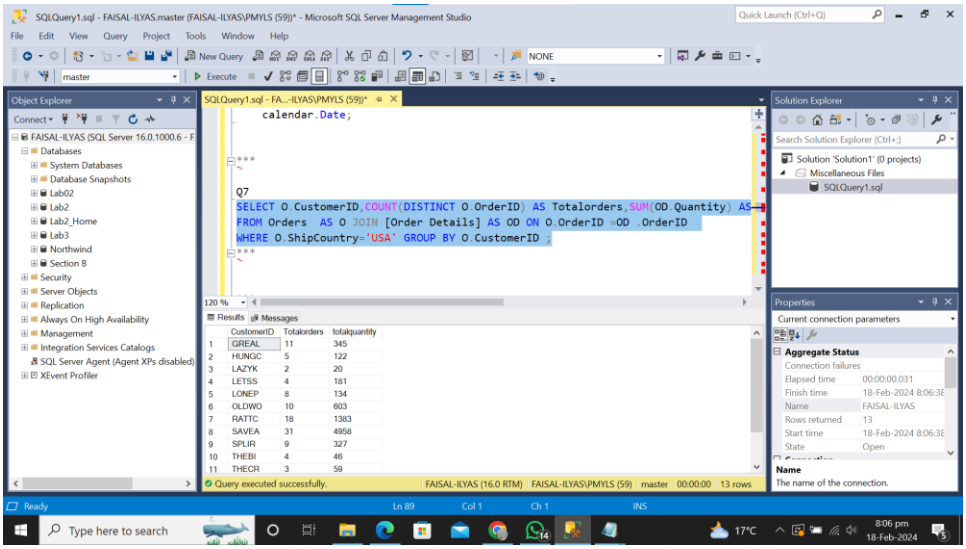
6. Write a query that returns a row for each employee and day in the range 04-07-1996 through 04-08 1997. (EmployeeID, Date)

```
SELECT
    e.EmployeeID,
    calendar.Date
FROM
    Employees e
CROSS JOIN (
    SELECT DATEADD(day, number, '1996-04-07') AS Date
    FROM master..spt_values
    WHERE type = 'P'
    AND DATEADD(day, number, '1996-04-07') <= '1997-04-08'
) calendar
ORDER BY
    e.EmployeeID,
    calendar.Date;
```



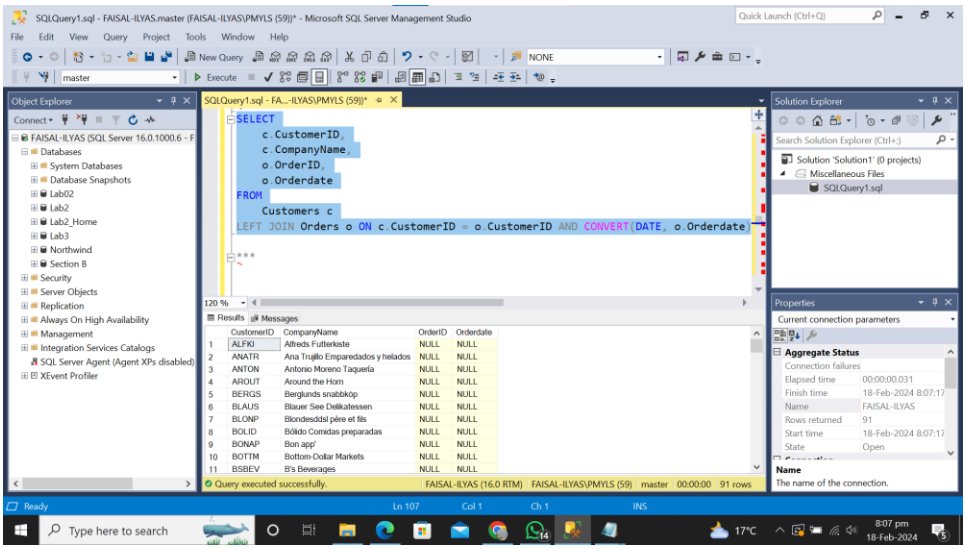
7. Return US customers, and for each customer return the total number of orders and total quantities. (CustomerID, Totalorders, totalquantity)

```
SELECT O.CustomerID,COUNT(DISTINCT O.OrderID) AS Totalorders,SUM(OD.Quantity) AS totalquantity

FROM Orders  AS O JOIN [Order Details] AS OD ON O.OrderID =OD .OrderID

WHERE O.ShipCountry='USA' GROUP BY O.CustomerID ;
```



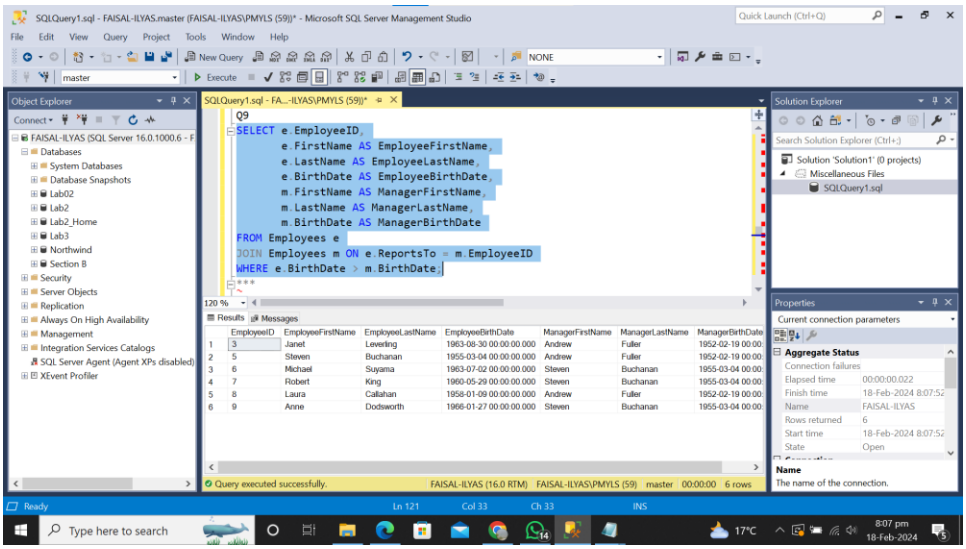
8. Write a query that returns all customers in the output, but matches them with their respective orders only if they were placed on July 04,1997. (CustomerID, CompanyName, OrderID, Orderdate)

```
SELECT

    c.CustomerID,

    c.CompanyName,

    o.OrderID,

    o.Orderdate

FROM

    Customers c

LEFT JOIN Orders o ON c.CustomerID = o.CustomerID AND CONVERT(DATE, o.Orderdate) = '1997-07-04';
```



9. Are there any employees who are older than their managers?

```
SELECT e.EmployeeID,
    e.FirstName AS EmployeeFirstName,
    e.LastName AS EmployeeLastName,
    e.BirthDate AS EmployeeBirthDate,
    m.FirstName AS ManagerFirstName,
    m.LastName AS ManagerLastName,
    m.BirthDate AS ManagerBirthDate
FROM Employees e
JOIN Employees m ON e.ReportsTo = m.EmployeeID
WHERE e.BirthDate > m.BirthDate;
```



10.List that names of those employees and their ages. (EmployeeName, Age, Manager Age)

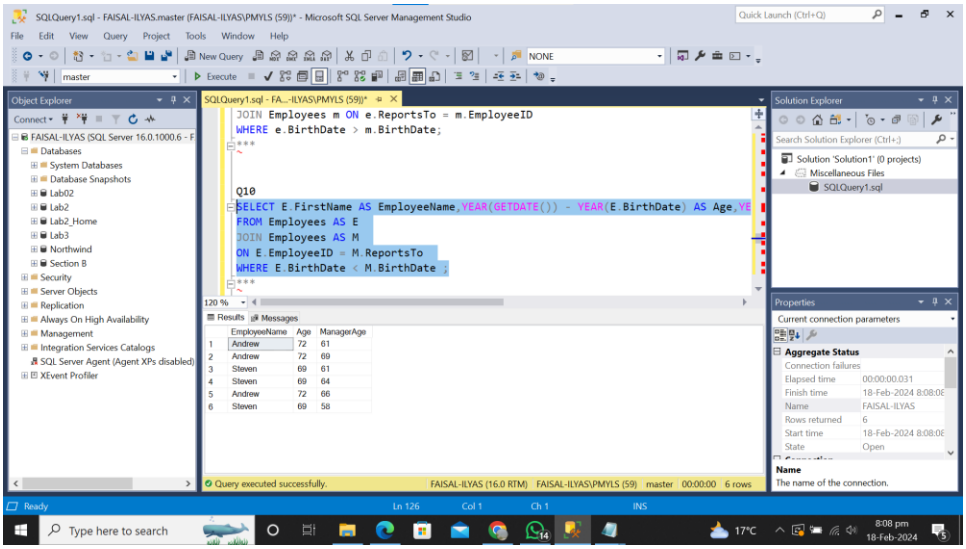
SELECT E.FirstName AS EmployeeName,YEAR(GETDATE()) - YEAR(E.BirthDate) AS Age,YEAR(GETDATE()) - YEAR(M.BirthDate) AS ManagerAge

FROM Employees AS E

JOIN Employees AS M

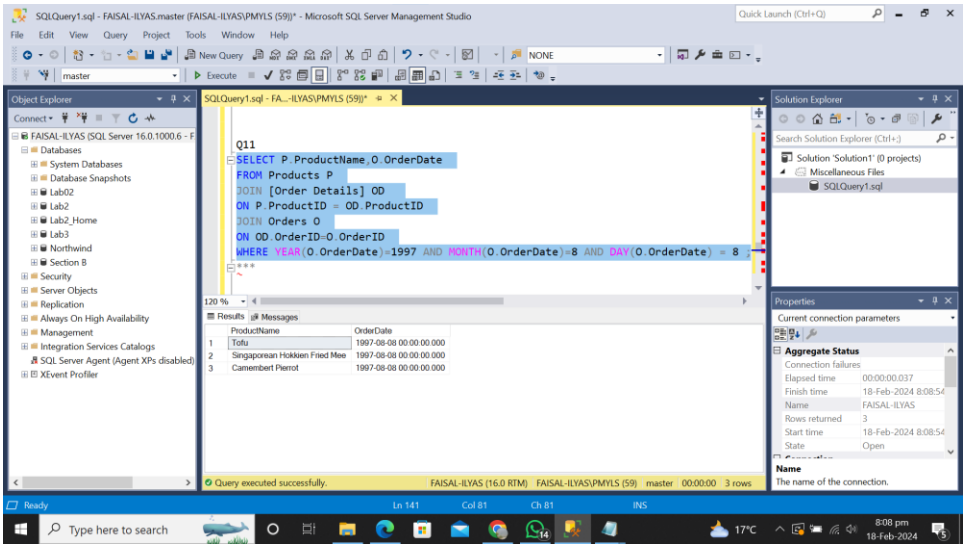
ON E.EmployeeID = M.ReportsTo

WHERE E.BirthDate < M.BirthDate ;



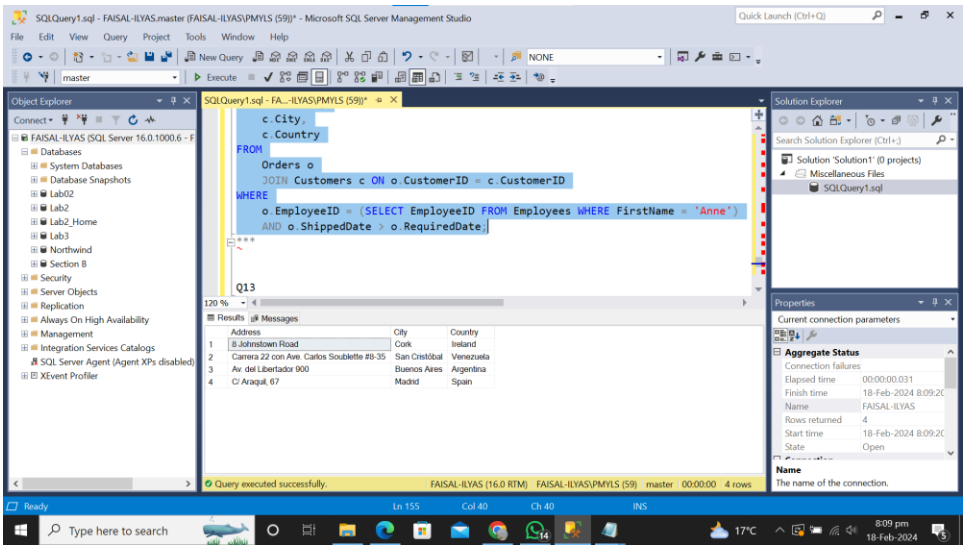
11. List the names of products which were ordered on 8th August 1997. (ProductName, OrderDate)

```
SELECT P.ProductName,O.OrderDate

FROM Products P

JOIN [Order Details] OD

ON P.ProductID = OD.ProductID

JOIN Orders O

ON OD.OrderID=O.OrderID

WHERE YEAR(O.OrderDate)=1997 AND MONTH(O.OrderDate)=8 AND DAY(O.OrderDate) = 8 ;
```



12. List the addresses, cities, countries of all orders which were serviced by Anne and were shipped late. (Address, City, Country)

```
SELECT

   c.Address,

   c.City,

   c.Country

FROM

   Orders o

   JOIN Customers c ON o.CustomerID = c.CustomerID

WHERE

   o.EmployeeID = (SELECT EmployeeID FROM Employees WHERE FirstName = 'Anne')

   AND o.ShippedDate > o.RequiredDate;
```



13. List all countries to which beverages have been shipped. (Country)

SELECT O.ShipCountry AS Country

FROM Products P

JOIN [Order Details] OD ON P.ProductID = OD.ProductID

JOIN Orders O ON OD.OrderID = O.OrderID

WHERE P.CategoryID = 1 ;