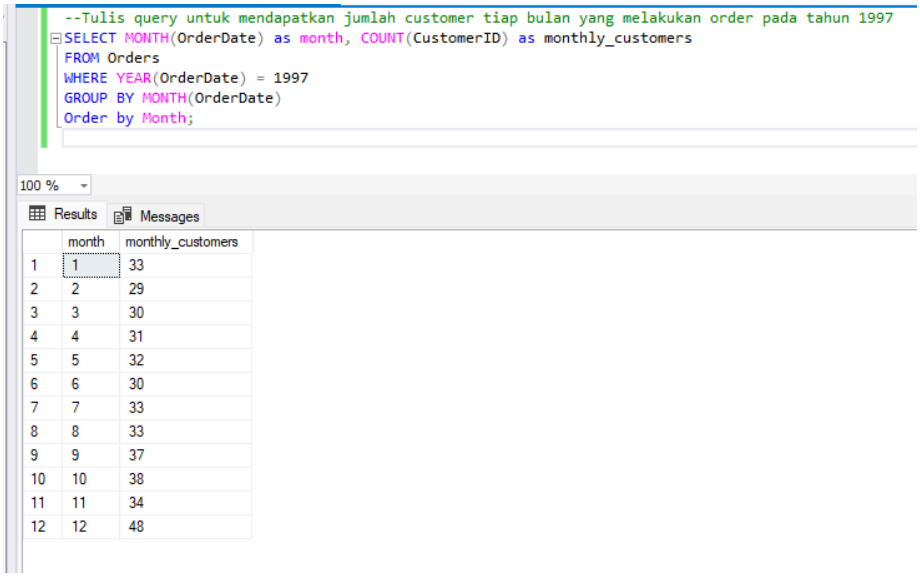
INTERMEDIATE QUERY
Mini Project DE - Nurul Anggraeni

1. Tulis query untuk mendapatkan jumlah customer tiap bulan yang melakukan order pada tahun 1997

```
SELECT MONTH(OrderDate) as month, COUNT(CustomerID) as monthly_customers
FROM Orders
WHERE YEAR(OrderDate) = 1997
GROUP BY MONTH(OrderDate)
Order by Month;
```



```
--Tulis query untuk mendapatkan jumlah customer tiap bulan yang melakukan order pada tahun 1997
SELECT MONTH(OrderDate) as month, COUNT(CustomerID) as monthly_customers
FROM Orders
WHERE YEAR(OrderDate) = 1997
GROUP BY MONTH(OrderDate)
Order by Month;
```

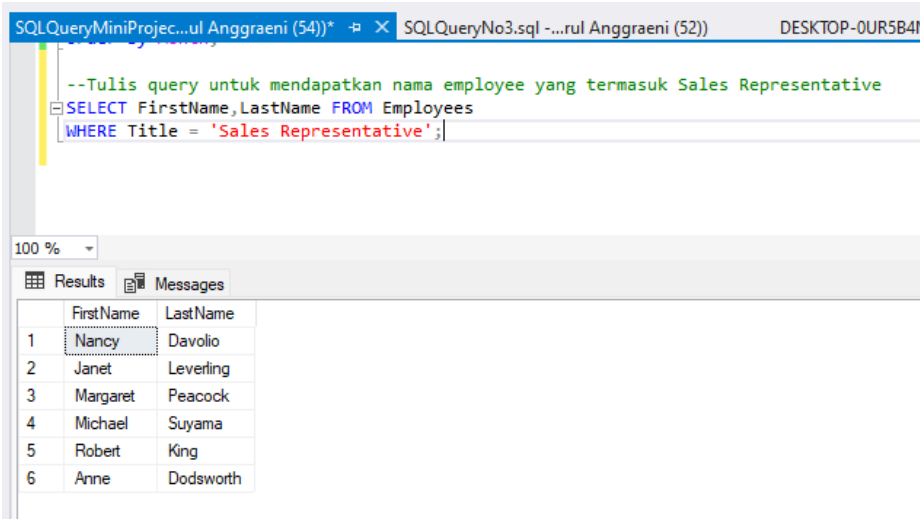
100 %

Results | Messages

	month	monthly_customers
1	1	33
2	2	29
3	3	30
4	4	31
5	5	32
6	6	30
7	7	33
8	8	33
9	9	37
10	10	38
11	11	34
12	12	48

2. Tulis query untuk mendapatkan nama employee yang termasuk Sales Representative

```
SELECT FirstName,LastName FROM Employees
WHERE Title = 'Sales Representative';
```



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```
--Tulis query untuk mendapatkan nama employee yang termasuk Sales Representative
SELECT FirstName,LastName FROM Employees
WHERE Title = 'Sales Representative';
```

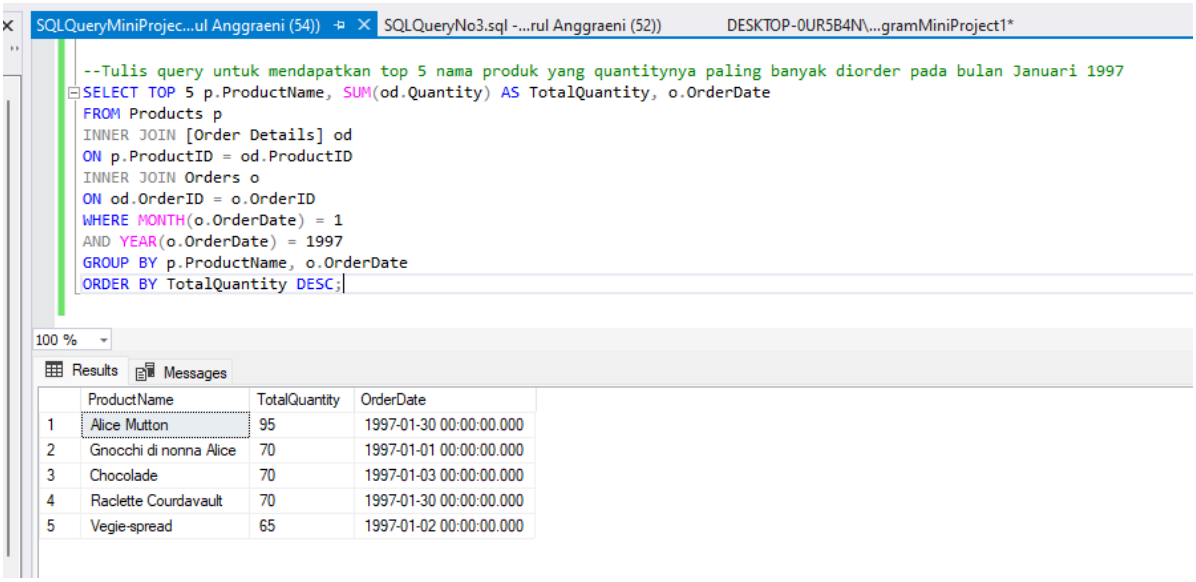
100 %

Results | Messages

	FirstName	LastName
1	Nancy	Davolio
2	Janet	Leverling
3	Margaret	Peacock
4	Michael	Suyama
5	Robert	King
6	Anne	Dodsworth

3. Tulis query untuk mendapatkan top 5 nama produk yang quantitynya paling banyak diorder pada bulan Januari 1997

```
SELECT TOP 5 p.ProductName, SUM(od.Quantity) AS TotalQuantity, o.OrderDate
FROM Products p
INNER JOIN [Order Details] od
ON p.ProductID = od.ProductID
INNER JOIN Orders o
ON od.OrderID = o.OrderID
WHERE MONTH(o.OrderDate) = 1
AND YEAR(o.OrderDate) = 1997
GROUP BY p.ProductName, o.OrderDate
ORDER BY TotalQuantity DESC;
```

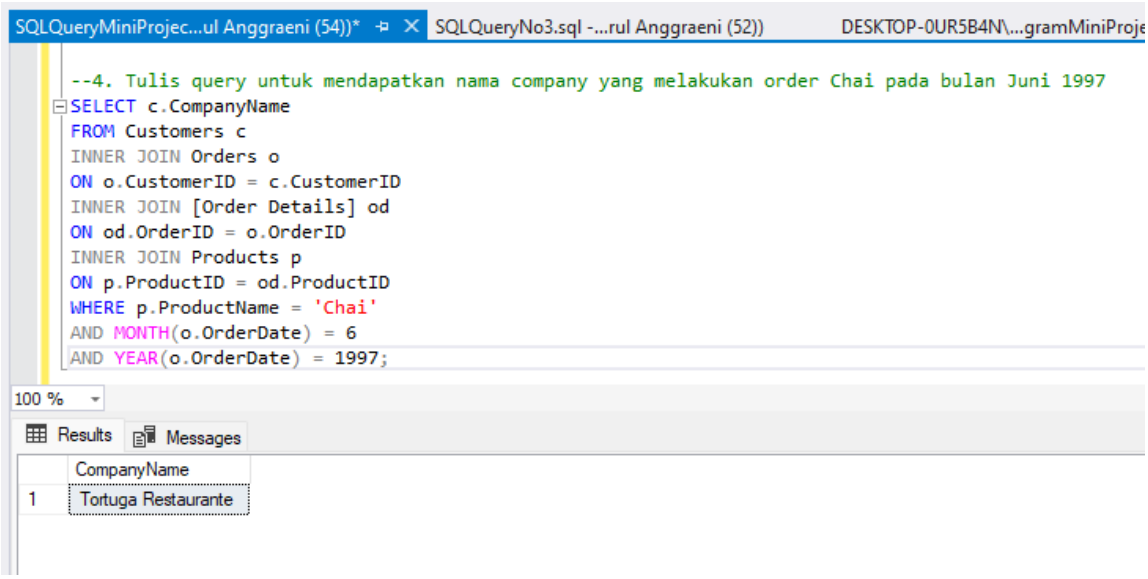


	ProductName	TotalQuantity	OrderDate
1	Alice Mutton	95	1997-01-30 00:00:00.000
2	Gnocchi di nonna Alice	70	1997-01-01 00:00:00.000
3	Chocolade	70	1997-01-03 00:00:00.000
4	Raclette Courdavault	70	1997-01-30 00:00:00.000
5	Vegie-spread	65	1997-01-02 00:00:00.000

4. Tulis query untuk mendapatkan nama company yang melakukan order Chai pada bulan Juni 1997

```
SELECT c.CompanyName
FROM Customers c
INNER JOIN Orders o
ON o.CustomerID = c.CustomerID
INNER JOIN [Order Details] od
ON od.OrderID = o.OrderID
INNER JOIN Products p
ON p.ProductID = od.ProductID
WHERE p.ProductName = 'Chai'
```

```
AND MONTH(o.OrderDate) = 6
AND YEAR(o.OrderDate) = 1997;
```



5. Tulis query untuk mendapatkan jumlah OrderID yang pernah melakukan pembelian (unit_price dikali quantity) <=100, 100<x<=250, 250<x<=500, dan >500

```
ALTER TABLE [Order Details] ADD AmountRange VARCHAR(300);
UPDATE [Order Details]
SET AmountRange =
   CASE
      WHEN UnitPrice * Quantity <= 100 THEN '<=100'
      WHEN UnitPrice * Quantity > 100 AND UnitPrice * Quantity <= 250 THEN
'100<x<=250'
      WHEN UnitPrice * Quantity > 250 AND UnitPrice * Quantity <= 500 THEN
'250<x<=500'
      WHEN UnitPrice * Quantity > 500 THEN '>500'
   END

SELECT
        COUNT(DISTINCT OrderID) AS OrderCount, AmountRange
FROM [Order Details]
GROUP BY AmountRange
```

```sql
--Tulis query untuk mendapatkan jumlah OrderID yang pernah melakukan pembelian (unit_price dikali quantity) <=100, 100<x<=250, 250<x<=500, dan >500
ALTER TABLE [Order Details] ADD AmountRange VARCHAR(300);
UPDATE [Order Details]
SET AmountRange =
    CASE
        WHEN UnitPrice * Quantity <= 100 THEN '<=100'
        WHEN UnitPrice * Quantity > 100 AND UnitPrice * Quantity <= 250 THEN '100<x<=250'
        WHEN UnitPrice * Quantity > 250 AND UnitPrice * Quantity <= 500 THEN '250<x<=500'
        WHEN UnitPrice * Quantity > 500 THEN '>500'
    END

SELECT
    COUNT(DISTINCT OrderID) AS OrderCount, AmountRange
FROM [Order Details]
GROUP BY AmountRange
```

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Results | Messages

	OrderCount	AmountRange
1	269	<=100
2	502	>500
3	382	100<x<=250
4	425	250<x<=500

6. Tulis query untuk mendapatkan Company name pada tabel customer yang melakukan pembelian di atas 500 pada tahun 1997

SELECT c.CompanyName, SUM(od.UnitPrice * od.Quantity) AS totalorder
FROM Customers c
INNER JOIN Orders o
ON c.CustomerID = o.CustomerID
INNER JOIN [Order Details] od
ON od.OrderID = o.OrderID
WHERE od.UnitPrice * od.Quantity > 500
AND YEAR(o.OrderDate) = 1997
GROUP BY c.CompanyName
ORDER BY c.CompanyName;

```sql
--6. Tulis query untuk mendapatkan Company name pada tabel customer yang melakukan pembelian di atas 500 pada tahun 1997

SELECT c.CompanyName, SUM(od.UnitPrice * od.Quantity) AS totalorder
FROM Customers c
INNER JOIN Orders o
ON c.CustomerID = o.CustomerID
INNER JOIN [Order Details] od
ON od.OrderID = o.OrderID
WHERE od.UnitPrice * od.Quantity > 500
AND YEAR(o.OrderDate) = 1997
GROUP BY c.CompanyName
ORDER BY c.CompanyName;
```

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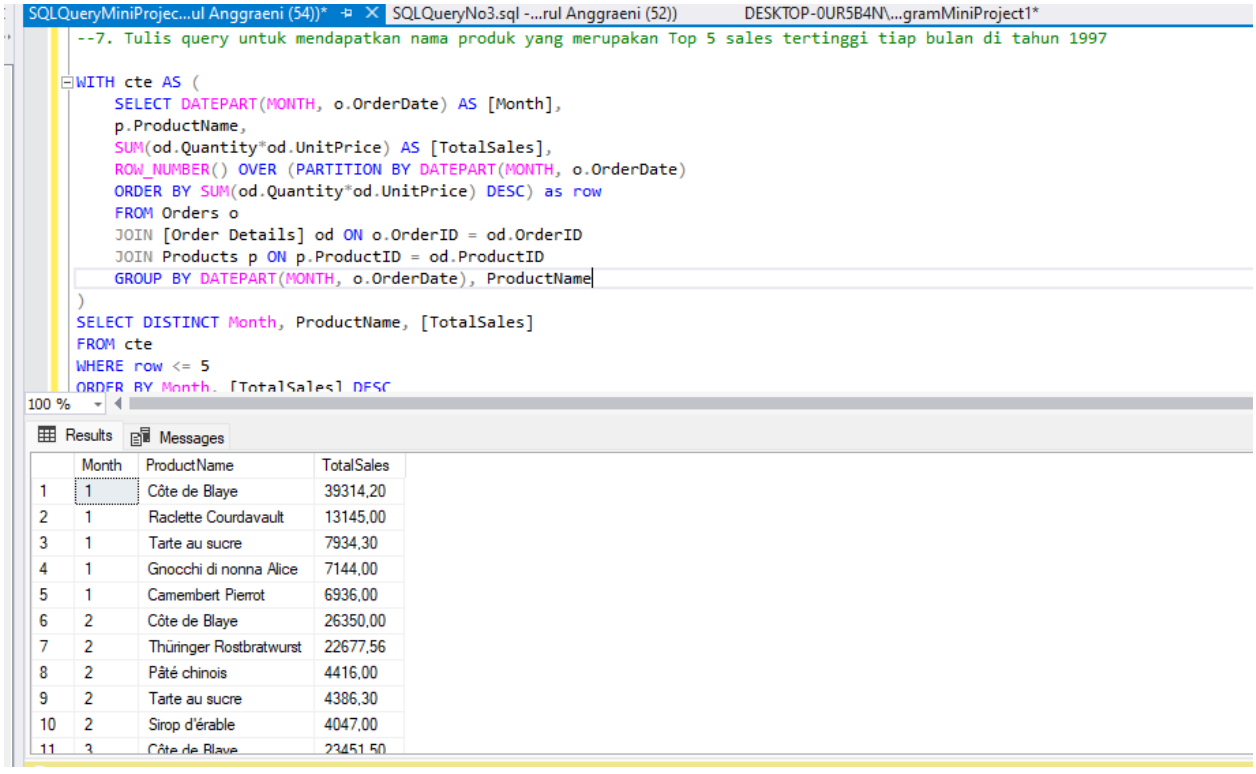
Results | Messages

	CompanyName	totalorder
1	Alfreds Futterkiste	1562,00
2	Antonio Moreno Taquería	5583,90
3	Around the Horn	4069,40
4	Berglunds snabbköp	9854,50
5	Blondesddsl père et fils	6538,00
6	Bólido Comidas preparadas	4035,80
7	Bon app'	9618,00
8	Bottom-Dollar Markets	7209,00
9	B's Beverages	1328,00
10	Chop-suey Chinese	4550,00
11	Comércio Mineiro	912,00
12	Die Wandernde Kuh	2890,00
13	Eastern Connection	3133,00

7. Tulis query untuk mendapatkan nama produk yang merupakan Top 5 sales tertinggi tiap bulan di tahun 1997

```
WITH cte AS (
        SELECT DATEPART(MONTH, o.OrderDate) AS [Month],
        p.ProductName,
        SUM(od.Quantity*od.UnitPrice) AS [TotalSales],
        ROW_NUMBER() OVER (PARTITION BY DATEPART(MONTH, o.OrderDate)
        ORDER BY SUM(od.Quantity*od.UnitPrice) DESC) as row
        FROM Orders o
        JOIN [Order Details] od ON o.OrderID = od.OrderID
        JOIN Products p ON p.ProductID = od.ProductID
        GROUP BY DATEPART(MONTH, o.OrderDate), ProductName
)
SELECT DISTINCT Month, ProductName, [TotalSales]
FROM cte
WHERE row <= 5
ORDER BY Month, [TotalSales] DESC
```

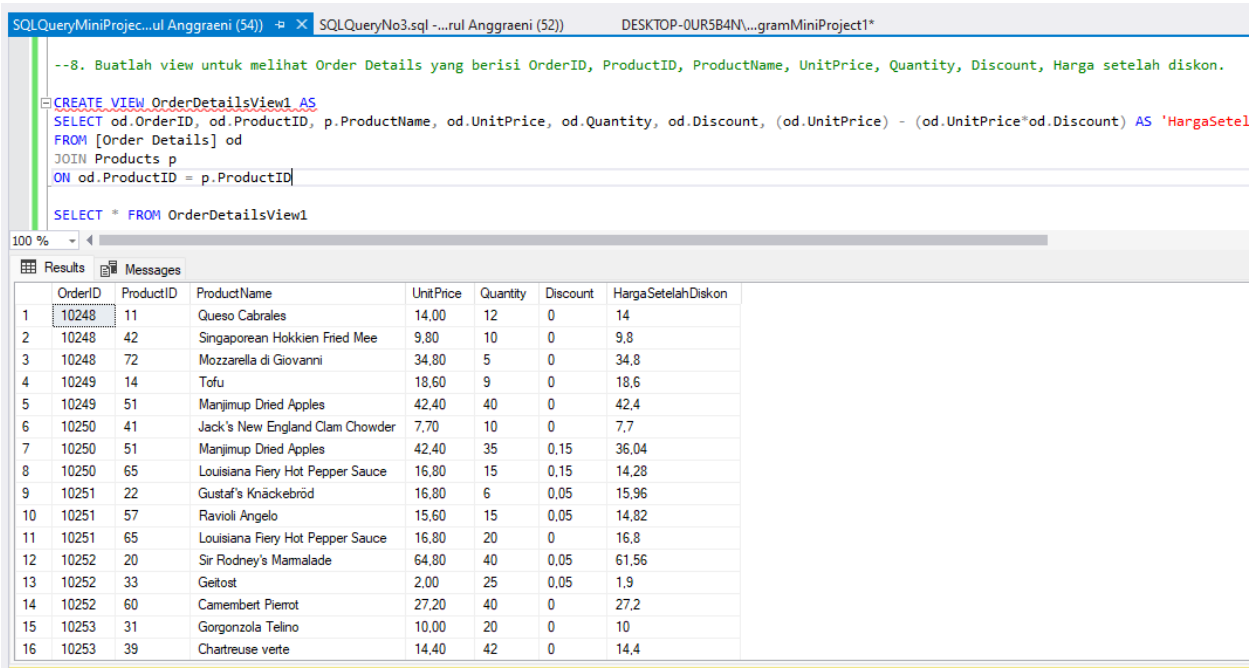


	Month	ProductName	TotalSales
1	1	Côte de Blaye	39314,20
2	1	Raclette Courdavault	13145,00
3	1	Tarte au sucre	7934,30
4	1	Gnocchi di nonna Alice	7144,00
5	1	Camembert Pierrot	6936,00
6	2	Côte de Blaye	26350,00
7	2	Thüringer Rostbratwurst	22677,56
8	2	Pâté chinois	4416,00
9	2	Tarte au sucre	4386,30
10	2	Sirop d'érable	4047,00
11	3	Côte de Blaye	23451,50

8. Buatlah view untuk melihat Order Details yang berisi OrderID, ProductID, ProductName, UnitPrice, Quantity, Discount, Harga setelah diskon.

```
CREATE VIEW OrderDetailsView1 AS
SELECT od.OrderID, od.ProductID, p.ProductName, od.UnitPrice, od.Quantity,
od.Discount, (od.UnitPrice) - (od.UnitPrice*od.Discount) AS 'HargaSetelahDiskon'
FROM [Order Details] od
JOIN Products p
ON od.ProductID = p.ProductID

SELECT * FROM OrderDetailsView1
```



	OrderID	ProductID	ProductName	UnitPrice	Quantity	Discount	HargaSetelahDiskon
1	10248	11	Queso Cabrales	14,00	12	0	14
2	10248	42	Singaporean Hokkien Fried Mee	9,80	10	0	9,8
3	10248	72	Mozzarella di Giovanni	34,80	5	0	34,8
4	10249	14	Tofu	18,60	9	0	18,6
5	10249	51	Manjimup Dried Apples	42,40	40	0	42,4
6	10250	41	Jack's New England Clam Chowder	7,70	10	0	7,7
7	10250	51	Manjimup Dried Apples	42,40	35	0,15	36,04
8	10250	65	Louisiana Fiery Hot Pepper Sauce	16,80	15	0,15	14,28
9	10251	22	Gustaf's Knäckebröd	16,80	6	0,05	15,96
10	10251	57	Ravioli Angelo	15,60	15	0,05	14,82
11	10251	65	Louisiana Fiery Hot Pepper Sauce	16,80	20	0	16,8
12	10252	20	Sir Rodney's Marmalade	64,80	40	0,05	61,56
13	10252	33	Geitost	2,00	25	0,05	1,9
14	10252	60	Camembert Pierrot	27,20	40	0	27,2
15	10253	31	Gorgonzola Telino	10,00	20	0	10
16	10253	39	Chartreuse verte	14,40	42	0	14,4

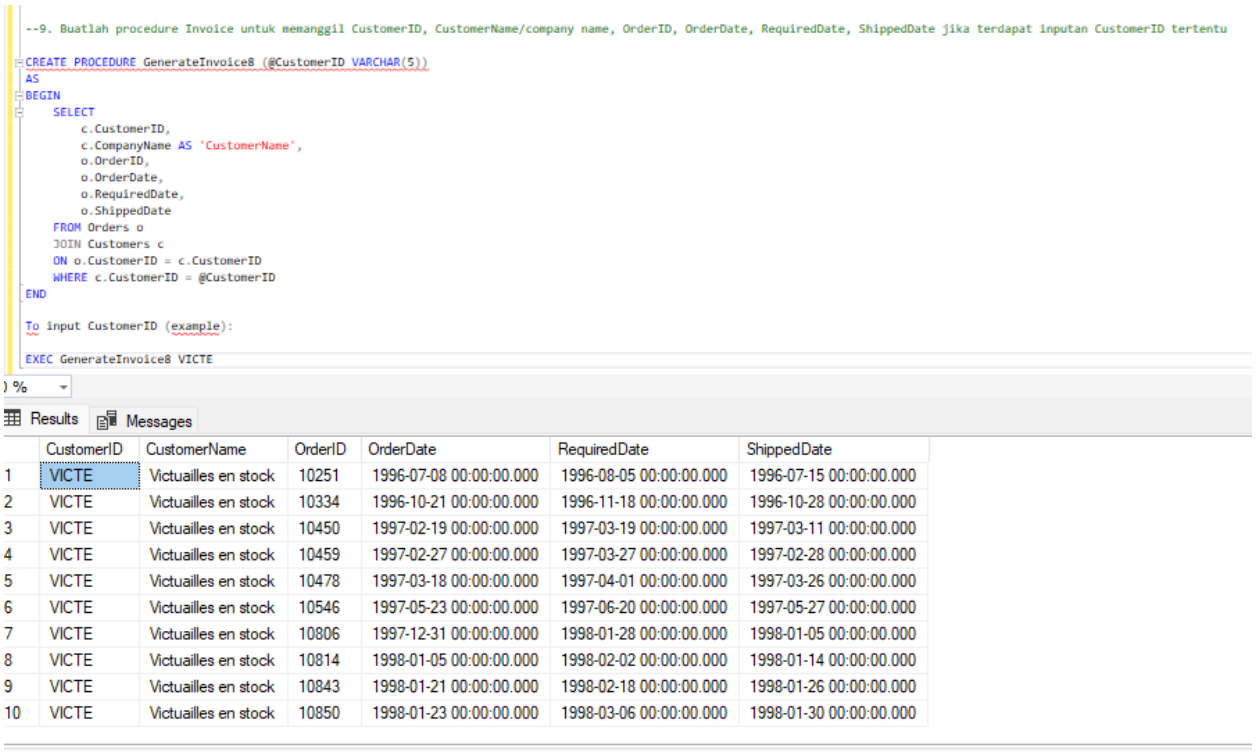
9. Buatlah procedure Invoice untuk memanggil CustomerID, CustomerName/company name, OrderID, OrderDate, RequiredDate, ShippedDate jika terdapat inputan CustomerID tertentu

```
CREATE PROCEDURE GenerateInvoice8 (@CustomerID VARCHAR(5))
AS
BEGIN
	SELECT
		c.CustomerID,
		c.CompanyName AS 'CustomerName',
		o.OrderID,
		o.OrderDate,
```

```
        o.RequiredDate,
        o.ShippedDate
    FROM Orders o
    JOIN Customers c
    ON o.CustomerID = c.CustomerID
    WHERE c.CustomerID = @CustomerID
END
```

To input CustomerID (example):

EXEC GenerateInvoice8 VICTE



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AS
BEGIN
    SELECT
        c.CustomerID,
        c.CompanyName AS 'CustomerName',
        o.OrderID,
        o.OrderDate,
        o.RequiredDate,
        o.ShippedDate
    FROM Orders o
    JOIN Customers c
    ON o.CustomerID = c.CustomerID
    WHERE c.CustomerID = @CustomerID
END

To input CustomerID (example):

EXEC GenerateInvoice8 VICTE
```

Results Messages

	CustomerID	CustomerName	OrderID	OrderDate	RequiredDate	ShippedDate
1	VICTE	Victuailles en stock	10251	1996-07-08 00:00:00.000	1996-08-05 00:00:00.000	1996-07-15 00:00:00.000
2	VICTE	Victuailles en stock	10334	1996-10-21 00:00:00.000	1996-11-18 00:00:00.000	1996-10-28 00:00:00.000
3	VICTE	Victuailles en stock	10450	1997-02-19 00:00:00.000	1997-03-19 00:00:00.000	1997-03-11 00:00:00.000
4	VICTE	Victuailles en stock	10459	1997-02-27 00:00:00.000	1997-03-27 00:00:00.000	1997-02-28 00:00:00.000
5	VICTE	Victuailles en stock	10478	1997-03-18 00:00:00.000	1997-04-01 00:00:00.000	1997-03-26 00:00:00.000
6	VICTE	Victuailles en stock	10546	1997-05-23 00:00:00.000	1997-06-20 00:00:00.000	1997-05-27 00:00:00.000
7	VICTE	Victuailles en stock	10806	1997-12-31 00:00:00.000	1998-01-28 00:00:00.000	1998-01-05 00:00:00.000
8	VICTE	Victuailles en stock	10814	1998-01-05 00:00:00.000	1998-02-02 00:00:00.000	1998-01-14 00:00:00.000
9	VICTE	Victuailles en stock	10843	1998-01-21 00:00:00.000	1998-02-18 00:00:00.000	1998-01-26 00:00:00.000
10	VICTE	Victuailles en stock	10850	1998-01-23 00:00:00.000	1998-03-06 00:00:00.000	1998-01-30 00:00:00.000