Muhammad Fachrul Ghiffari Mini Project : Data Engineer Intermediate Queries

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

Query:

```
□WITH CTE AS (

SELECT DATEPART(MONTH, OrderDate) A, DATENAME(MONTH, OrderDate) [Month]
,COUNT(DISTINCT CustomerID) JumlahCustomer
FROM [Northwind].[dbo].[Orders]
WHERE DATEPART(YEAR, OrderDate) = 1997
GROUP BY DATEPART(MONTH, OrderDate), DATENAME(MONTH, OrderDate))

SELECT [Month], JumlahCustomer
FROM CTE
ORDER BY A;
```

Hasil:

	Month	JumlahCustomer
1	January	27
2	February	21
3	March	24
4	April	27
5	May	26
6	June	25
7	July	25
8	August	30
9	September	27
10	October	28
11	November	27
12	December	37

2. Query untuk mendapatkan nama employee yang termasuk Sales Representative.

Ouerv:

```
□SELECT CONCAT(FirstName, ' ', LastName) AS 'Employees Name (Sales Representative)'
| FROM Northwind.dbo.Employees
| WHERE Title = 'Sales Representative';
```

Hasil:

	Employees Name (Sales Representative)	
1	Nancy Davolio	
2	Janet Leverling	
3	Margaret Peacock	
4	Michael Suyama	
5	Robert King	
6	Anne Dodsworth	

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

Query:

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

Hasil:

	ProductID	ProductName	TotalQuantity
1	33	Geitost	119
2	59	Raclette Courdavault	115
3	56	Gnocchi di nonna Alice	105
4	63	Vegie-spread	100
5	38	Côte de Blaye	99

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

Query:

```
FROM [Northwind].[dbo].[Orders] o

JOIN [Northwind].[dbo].[Customers] c

ON o.CustomerID = c.CustomerID

JOIN [Northwind].[dbo].[Order Details] od

ON o.OrderID = od.OrderID

JOIN [Northwind].[dbo].[Products] p

ON od.ProductID = p.ProductID

WHERE p.ProductName = 'Chai'

AND DATEPART(YEAR, OrderDate) = 1997 AND DATEPART(MONTH, OrderDate) = 6;
```

Hasil:



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

Query:

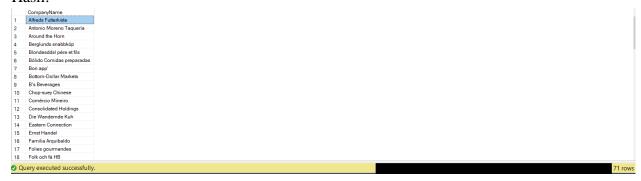
Hasil:

	PurchaseRange	TotalOrder	
1	<= 100	37	
2	> 500	611	
3	100 < x <=250	64	
4	250 < x <=500	118	

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

Query:

Hasil:



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

Query:

Hasil:



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

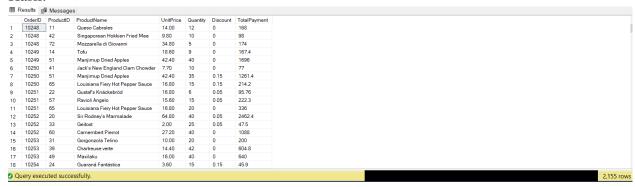
Query membuat view:

Query data dari view:

```
□SELECT *

| FROM OrderDetails
```

Hasil:



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

Query membuat procedure:

```
□CREATE PROCEDURE Invoice

(
    @CustomerID VARCHAR(5)
)

AS
□BEGIN
□ SELECT c.CustomerID, c.CompanyName, o.OrderID, o.OrderDate, o.RequiredDate, o.ShippedDate
    FROM [Northwind].[dbo].[Customers] c
    JOIN [Northwind].[dbo].[Orders] o ON c.CustomerID = o.CustomerID

WHERE c.CustomerID = @CustomerID

END;
```

Query memanggil procedure dengan input CustomerID:

```
EXEC Invoice CACTU;
```

Hasil:

	CustomerID	CompanyName	OrderID	OrderDate	RequiredDate	ShippedDate
1	CACTU	Cactus Comidas para llevar	10521	1997-04-29 00:00:00.000	1997-05-27 00:00:00.000	1997-05-02 00:00:00.000
2	CACTU	Cactus Comidas para llevar	10782	1997-12-17 00:00:00.000	1998-01-14 00:00:00.000	1997-12-22 00:00:00.000
3	CACTU	Cactus Comidas para llevar	10819	1998-01-07 00:00:00.000	1998-02-04 00:00:00.000	1998-01-16 00:00:00.000
4	CACTU	Cactus Comidas para llevar	10881	1998-02-11 00:00:00.000	1998-03-11 00:00:00.000	1998-02-18 00:00:00.000
5	CACTU	Cactus Comidas para llevar	10937	1998-03-10 00:00:00.000	1998-03-24 00:00:00.000	1998-03-13 00:00:00.000
6	CACTU	Cactus Comidas para llevar	11054	1998-04-28 00:00:00.000	1998-05-26 00:00:00.000	NULL