

MINI PROJECT
DATA ENGINEERING
DSLS 2023

Name :

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Date :

January, 2023

Bagian 2a Transform : Intermediate Queries

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

```
SELECT
    COUNT(Customers.CustomerID) AS Jumlah_Customer,
    MONTH(Orders.OrderDate) AS Bulan
FROM
    Orders
    LEFT JOIN Customers ON Orders.CustomerID=Customers.CustomerID
WHERE
    YEAR(Orders.OrderDate)='1997'
GROUP BY
    MONTH(Orders.OrderDate)
```

Hasil :

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

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

```
SELECT
    CONCAT(FirstName, ' ', LastName) AS EmployeeName,
    Title
FROM
    Employees
WHERE
    Title='Sales Representative'
```

Hasil :

	EmployeeName	Title
1	Nancy Davolio	Sales Representative
2	Janet Leverling	Sales Representative
3	Margaret Peacock	Sales Representative
4	Michael Suyama	Sales Representative
5	Robert King	Sales Representative
6	Anne Dodsworth	Sales Representative

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

```
SELECT
    TOP 5
    Products.ProductName,
    [Order Details].Quantity
FROM
    [Order Details]
    LEFT JOIN Products ON [Order Details].ProductID = Products.ProductID
    LEFT JOIN Orders ON [Order Details].OrderID = Orders.OrderID
WHERE
    Orders.OrderDate BETWEEN '1997-01-01' AND '1997-01-31'
ORDER BY
    Quantity DESC
```

Hasil :

	ProductName	Quantity
1	Gnocchi di nonna Alice	70
2	Chocolade	70
3	Raclette Courdavault	70
4	Vegie-spread	65
5	Flotemysost	60

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

```
SELECT
    Orders.OrderID,
    Products.ProductName,
    Customers.CompanyName
FROM
    Orders
    LEFT JOIN Customers ON Orders.CustomerID=Customers.CustomerID
    LEFT JOIN [Order Details] on [Order Details].OrderID = Orders.OrderID
    LEFT JOIN Products on [Order Details].ProductID = Products.ProductID
WHERE
    YEAR(Orders.OrderDate)='1997' AND MONTH(Orders.OrderDate)='06' AND
    Products.ProductName='Chai'
```

Hasil :

	OrderID	ProductName	CompanyName
1	10576	Chai	Tortuga Restaurante

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

```

SELECT
  CASE
    WHEN Products.UnitPrice*[Order Details].Quantity <=100 THEN 'Below $100'
    WHEN Products.UnitPrice*[Order Details].Quantity > 100 AND
         Products.UnitPrice*[Order Details].Quantity <= 250 THEN '$100 - $250'
    WHEN Products.UnitPrice*[Order Details].Quantity > 250 AND
         Products.UnitPrice*[Order Details].Quantity <= 500 THEN '$250 - $500'
    WHEN Products.UnitPrice*[Order Details].Quantity > 500 THEN 'Over $500'
  END AS Price_Range,
  COUNT ([Order Details].OrderID) AS Jumlah_OrderID
FROM
  [Order Details]
  LEFT JOIN Products on [Order Details].ProductID = Products.ProductID
GROUP BY
  CASE
    WHEN Products.UnitPrice*[Order Details].Quantity <=100 THEN 'Below $100'
    WHEN Products.UnitPrice*[Order Details].Quantity > 100 AND
         Products.UnitPrice*[Order Details].Quantity <= 250 THEN '$100 - $250'
    WHEN Products.UnitPrice*[Order Details].Quantity > 250 AND
         Products.UnitPrice*[Order Details].Quantity <= 500 THEN '$250 - $500'
    WHEN Products.UnitPrice*[Order Details].Quantity > 500 THEN 'Over $500'
  END
ORDER BY
  Price_Range

```

Hasil :

Results Messages		
	Price_Range	Jumlah_OrderID
1	\$100 - \$250	447
2	\$250 - \$500	545
3	Below \$100	324
4	Over \$500	839

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

```

SELECT
  Customers.CompanyName,
  YEAR(Orders.OrderDate) AS Tahun,
  Products.UnitPrice*[Order Details].Quantity as Pembelian
FROM
  Orders
  LEFT JOIN [Order Details] ON Orders.OrderID = [Order Details].OrderID
  LEFT JOIN Products ON [Order Details].ProductID=Products.ProductID
  LEFT JOIN Customers ON Orders.CustomerID = Customers.CustomerID
WHERE
  YEAR(Orders.OrderDate)='1997' AND [Order Details].UnitPrice*Quantity>500

```

Hasil :

Results		Messages	
	CompanyName	Tahun	Pembelian
1	Eastern Connection	1997	2599,59
2	Eastern Connection	1997	630,00
3	Rattlesnake Canyon Grocery	1997	2660,00
4	Rattlesnake Canyon Grocery	1997	1290,00
5	Ernst Handel	1997	2853,50
6	Ernst Handel	1997	892,50
7	Magazzini Alimentari Riuniti	1997	936,90
8	Queen Cozinha	1997	1915,20
9	Ottiles Käseladen	1997	630,00
10	Folies gourmandes	1997	1725,50
11	Bottom-Dollar Markets	1997	880,00
12	Bottom-Dollar Markets	1997	778,00
13	La maison d'Asie	1997	1972,00
14	Simons bistro	1997	13175,00
15	QUICK-Stop	1997	1140,00
16	Richter Supermarkt	1997	2040,00
17	Richter Supermarkt	1997	720,00
18	Wellington Importadora	1997	1940,00
19	Que Delícia	1997	936,90
20	Gourmet Lanchonetes	1997	1100,00

7. Tulis query untuk mendapatkan nama produk yang merupakan Top 5 sales tertinggi tiap bulan di tahun 1997
8. Buatlah view untuk melihat Order Details yang berisi OrderID, ProductID, ProductName, UnitPrice, Quantity, Discount, Harga setelah diskon

```
CREATE VIEW [NewOrderDetails] AS
SELECT
    [Order Details].OrderID,
    [Order Details].ProductID,
    Products.ProductName,
    Products.UnitPrice,
    [Order Details].Quantity,
    [Order Details].Discount,
    [Order Details].UnitPrice AS UnitPriceAfterDisc
FROM
    [Order Details]
LEFT JOIN Products ON [Order Details].ProductID = Products.ProductID*
```

Hasil :

Messages	
Commands completed successfully.	
Completion time: 2023-01-29T10:20:04.3685680+08:00	

--Check View

```
SELECT * FROM [NewOrderDetails]
```

Hasil :

	OrderID	ProductID	ProductName	UnitPrice	Quantity	Discount	UnitPriceAfterDisc
1	10248	11	Queso Cabrales	21,00	12	0	14,00
2	10248	42	Singaporean Hokkien Fried Mee	14,00	10	0	9,80
3	10248	72	Mozzarella di Giovanni	34,80	5	0	34,80
4	10249	14	Tofu	23,25	9	0	18,60
5	10249	51	Manjimup Dried Apples	53,00	40	0	42,40
6	10250	41	Jack's New England Clam Chowder	9,65	10	0	7,70
7	10250	51	Manjimup Dried Apples	53,00	35	0,15	42,40
8	10250	65	Louisiana Fiery Hot Pepper Sauce	21,05	15	0,15	16,80
9	10251	22	Gustaf's Knäckebröd	21,00	6	0,05	16,80
10	10251	57	Ravioli Angelo	19,50	15	0,05	15,60
11	10251	65	Louisiana Fiery Hot Pepper Sauce	21,05	20	0	16,80
12	10252	20	Sir Rodney's Marmalade	81,00	40	0,05	64,80
13	10252	33	Geitost	2,50	25	0,05	2,00
14	10252	60	Camembert Pierrot	34,00	40	0	27,20
15	10253	31	Gorgonzola Telino	12,50	20	0	10,00

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

```
CREATE PROCEDURE INVOICE0 @CUSTOMERID NVARCHAR(40)
```

```
AS
```

```
SELECT
```

```
    Customers.CustomerID, Customers.CompanyName,
```

```
    Orders.OrderID, Orders.OrderDate,
```

```
    Orders.RequiredDate, Orders.ShippedDate
```

```
FROM
```

```
    Orders
```

```
    LEFT JOIN Customers ON Orders.CustomerID = Customers.CustomerID
```

```
WHERE
```

```
    Customers.CustomerID = @CUSTOMERID
```

```
GO
```

```
--Execute dengan input CustomerID ALFKI
```

```
EXEC INVOICE0 @CUSTOMERID = 'ALFKI'
```

Hasil :

	CustomerID	CompanyName	OrderID	OrderDate	RequiredDate	ShippedDate
1	ALFKI	Alfreds Futterkiste	10643	1997-08-25 00:00:00.000	1997-09-22 00:00:00.000	1997-09-02 00:00:00.000
2	ALFKI	Alfreds Futterkiste	10692	1997-10-03 00:00:00.000	1997-10-31 00:00:00.000	1997-10-13 00:00:00.000
3	ALFKI	Alfreds Futterkiste	10702	1997-10-13 00:00:00.000	1997-11-24 00:00:00.000	1997-10-21 00:00:00.000
4	ALFKI	Alfreds Futterkiste	10835	1998-01-15 00:00:00.000	1998-02-12 00:00:00.000	1998-01-21 00:00:00.000
5	ALFKI	Alfreds Futterkiste	10952	1998-03-16 00:00:00.000	1998-04-27 00:00:00.000	1998-03-24 00:00:00.000
6	ALFKI	Alfreds Futterkiste	11011	1998-04-09 00:00:00.000	1998-05-07 00:00:00.000	1998-04-13 00:00:00.000