1. Tulis query untuk mendapatkan jumlah customer tiap bulan yang melakukan order pada tahun 1997.
   Jawab:
   a. Query
   ```sql
   -- Query No. 1
   SELECT MONTH(OrderDate) AS OrderMonth,
   COUNT(DISTINCT CustomerID) AS CostumerCount
   FROM Orders
   WHERE YEAR(OrderDate) = 1997
   GROUP BY MONTH(OrderDate);
   ```
   b. Screenshot Output

	OrderMonth	CostumerCount
1	1	27
2	2	21
3	3	24
4	4	27
5	5	26
6	6	25
7	7	25
8	8	30
9	9	27
10	10	28
11	11	27
12	12	37

2. Tulis query untuk mendapatkan nama employee yang termasuk Sales Representative.
   Jawab:
   a. Query
   ```sql
   -- Query No. 2
   SELECT CONCAT(FirstName, ' ', LastName) AS EmployeeName, Title
   FROM Employees
   WHERE Title = 'Sales Representative';
   ```
   b. Screenshot Output

	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.
   Jawab:

   a. Query
   ```sql
   -- Query No. 3
   ```

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

    b. Screenshot Output

	OrderDate	Quantity	ProductName
1	1997-01-01 00:00:00.000	70	Gnocchi di nonna Alice
2	1997-01-03 00:00:00.000	70	Chocolade
3	1997-01-30 00:00:00.000	70	Raclette Courdavault
4	1997-01-02 00:00:00.000	65	Vegie-spread
5	1997-01-01 00:00:00.000	60	Flotemysost

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

Jawab:

    a. Query

```sql
-- Query No. 4
SELECT
Orders.OrderDate,
Products.ProductName,
Customers.CompanyName
FROM Orders
INNER JOIN [Order Details] ON [Order Details].OrderID = Orders.OrderID
INNER JOIN Products ON Products.ProductID = [Order Details].ProductID
INNER JOIN Customers ON Orders.CustomerID = Customers.CustomerID
WHERE YEAR(OrderDate) = 1997 AND MONTH(OrderDate) = 6
AND ProductName LIKE '%Chai%';
```

    b. Screenshot Output

	OrderDate	ProductName	CompanyName
1	1997-06-23 00:00:00.000	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.

Jawab:

    a. Query

```sql
-- Query No. 5
SELECT
[Kategori Sales],
COUNT(OrderID) AS 'Jumlah OrderID'
FROM
(
SELECT Orders.OrderID,
        CASE
```

```
                        WHEN ([Order Details].UnitPrice * [Order
        Details].Quantity) <= 100 THEN 'Dibawah 100'
                        WHEN ([Order Details].UnitPrice * [Order
        Details].Quantity) > 100
                            AND ([Order Details].UnitPrice * [Order
        Details].Quantity) <= 250 THEN 'Antara 100-250'
                        WHEN ([Order Details].UnitPrice * [Order
        Details].Quantity) > 250
                            AND ([Order Details].UnitPrice * [Order
        Details].Quantity) <= 500 THEN 'Antara 250-500'
                        WHEN ([Order Details].UnitPrice * [Order
        Details].Quantity) > 500 THEN 'Diatas 500'
                    END as "Kategori Sales"
        FROM Orders
        INNER JOIN [Order Details] ON [Order Details].OrderID = Orders.OrderID
        ) AS SalesCategoryTable
        GROUP BY [Kategori Sales];
```

b. Screenshot Output

	Kategori Sales	Jumlah OrderID
1	Antara 100-250	472
2	Antara 250-500	532
3	Diatas 500	800
4	Dibawah 100	351

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

Jawab:

a. Query

```
-- Query No. 6
SELECT * FROM (
SELECT
Customers.CompanyName,
SUM([Order Details].UnitPrice * [Order Details].Quantity) AS 'TotalSales'
FROM Orders
INNER JOIN [Order Details] ON [Order Details].OrderID = Orders.OrderID
INNER JOIN Customers ON Customers.CustomerID = Orders.CustomerID
WHERE YEAR(OrderDate) = 1997
GROUP BY CompanyName
) AS CompanyNameTotalSales
WHERE TotalSales > 500;
```

b. Screenshot Output

	CompanyName	TotalSales
1	Vaffeljernet	9710,50
2	Ottilies Käseladen	8398,60
3	Santé Gourmet	700,00
4	Let's Stop N Shop	2039,42
5	Hungry Coyote Import Store	2283,20
6	Morgenstern Gesundkost	3596,40
7	HILARION-Abastos	14026,18
8	Ricardo Adocicados	4338,90
9	Pericles Comidas clásicas	2065,40
10	Wartian Herkku	13106,30

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

Jawab:

a. Query

```sql
-- Query No. 7
WITH MonthlySales AS (
        SELECT
                Products.ProductName,
                MONTH(Orders.OrderDate) AS Month,
                SUM([Order Details].UnitPrice * [Order Details].Quantity) AS
'TotalSales'
        FROM Orders
        JOIN [Order Details] ON [Order Details].OrderID = Orders.OrderID
        JOIN Products ON Products.ProductID = [Order Details].ProductID
        WHERE YEAR(OrderDate) = 1997
        GROUP BY MONTH(OrderDate), ProductName
        )
SELECT
        Month,
        ProductName,
        Rank
        FROM (
                SELECT
                        *,
                        ROW_NUMBER() OVER (PARTITION BY Month Order By
TotalSales DESC) AS Rank
                FROM MonthlySales
        ) AS MonthlyRankTable
WHERE Rank <= 5;
```

b. Screenshot Output

	Month	ProductName	Rank
1	1	Côte de Blaye	1
2	1	Raclette Courdavault	2
3	1	Vegie-spread	3
4	1	Gnocchi di nonna Alice	4
5	1	Alice Mutton	5
6	2	Pâté chinois	1
7	2	Sirop d'érable	2
8	2	Gnocchi di nonna Alice	3
9	2	Thüringer Rostbratw...	4
10	2	Rössle Sauerkraut	5
11	3	Raclette Courdavault	1
12	3	Côte de Blaye	2
13	3	Manjimup Dried Apples	3
14	3	Thüringer Rostbratw...	4
15	3	Camembert Pierrot	5
16	4	Gnocchi di nonna Alice	1
17	4	Schoggi Schokolade	2
18	4	Thüringer Rostbratw...	3
19	4	Côte de Blaye	4
20	4	Camembert Pierrot	5

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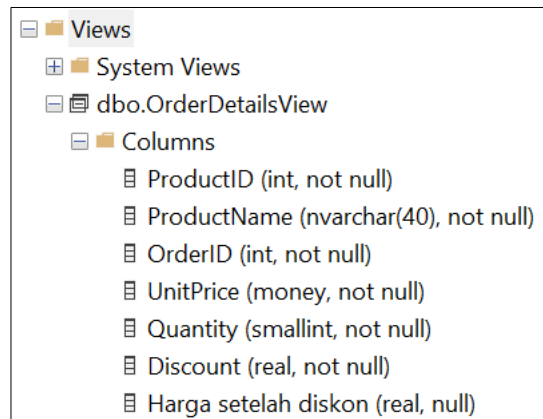
Jawab:

a. Query

```sql
-- View No. 8
CREATE VIEW OrderDetailsView AS
```

```sql
SELECT
    Products.ProductID,
    Products.ProductName,
    [Order Details].OrderID,
    [Order Details].UnitPrice,
    [Order Details].Quantity, [Order Details].Discount,
    ([Order Details].UnitPrice
    * [Order Details].Quantity)
    - ([Order Details].UnitPrice
    * [Order Details].Quantity
    * [Order Details].Discount) AS 'Harga setelah diskon'
FROM [Order Details]
JOIN Products ON Products.ProductID = [Order Details].ProductID;
```

b. Screenshot Output

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

Jawab:

a. Query

```sql
-- Procedure No.9
CREATE PROCEDURE Invoice (@customerID INT)
AS
BEGIN
SELECT
Customers.CustomerID,
CONCAT(Customers.ContactName, ' / ', Customers.CompanyName) AS
'CustomerName/CompanyName',
Orders.OrderID,
Orders.OrderDate,
Orders.RequiredDate,
Orders.ShippedDate
FROM Customers
INNER JOIN Orders ON Customers.CustomerID = Orders.CustomerID
WHERE Customers.CustomerID = @customerID
END
```

b. Screenshot Output