



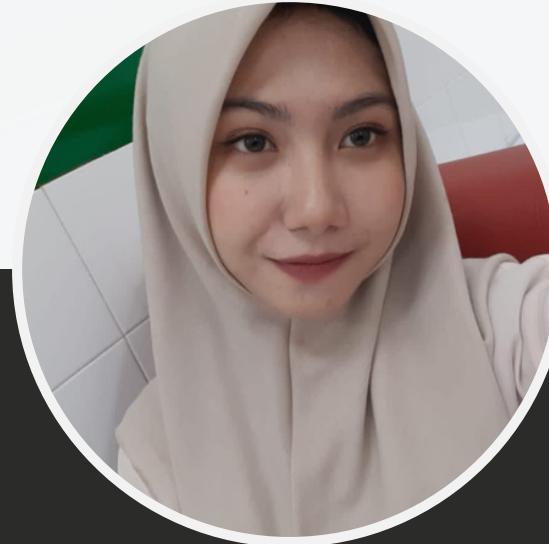
ONLINE SHOP

UTS LAB BASIS DATA

OUR TEAM



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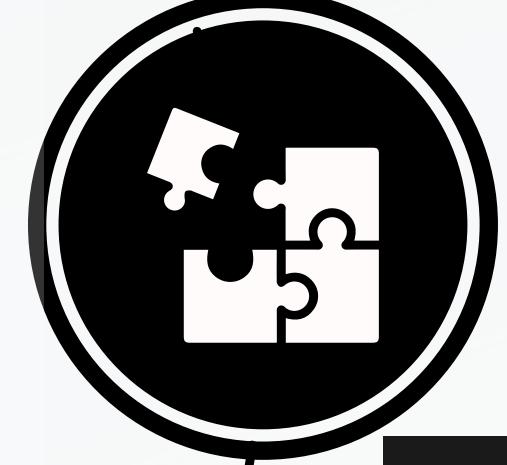
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GOALS :

DATABASE



ERD DATABASE



QUERY-QUERY



ENTITAS

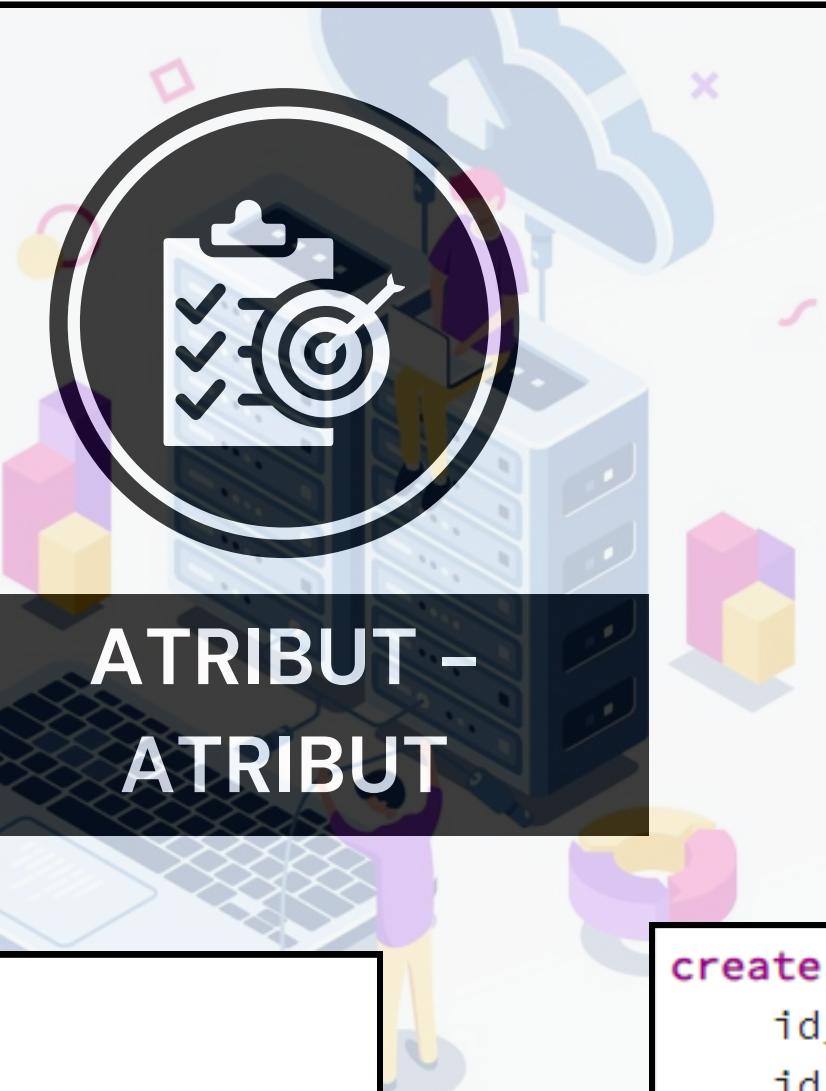
```
create table Produk (
    id_Produk INT PRIMARY KEY NOT NULL,
    Nama_Produk Text NOT NULL,
    Kategori Text NOT NULL,
    Harga INT NOT NULL,
    Stok INT NOT NULL,
    Deskripsi Text
```

```
create table Customer (
    id_Customer INT PRIMARY KEY NOT NULL,
    Nama Text NOT NULL,
    Alamat Text NOT NULL
)
```

```
create table Pemesanan (
    id_Pemesanan INT PRIMARY KEY NOT NULL,
    id_Customer INT REFERENCES Customer(id_Customer),
    id_Produk INT REFERENCES Produk(id_Produk),
    Tanggal_Pemesanan Date NOT NULL,
    Jumlah_Produk INT NOT NULL,
    Total_Harga INT NOT NULL
)
```

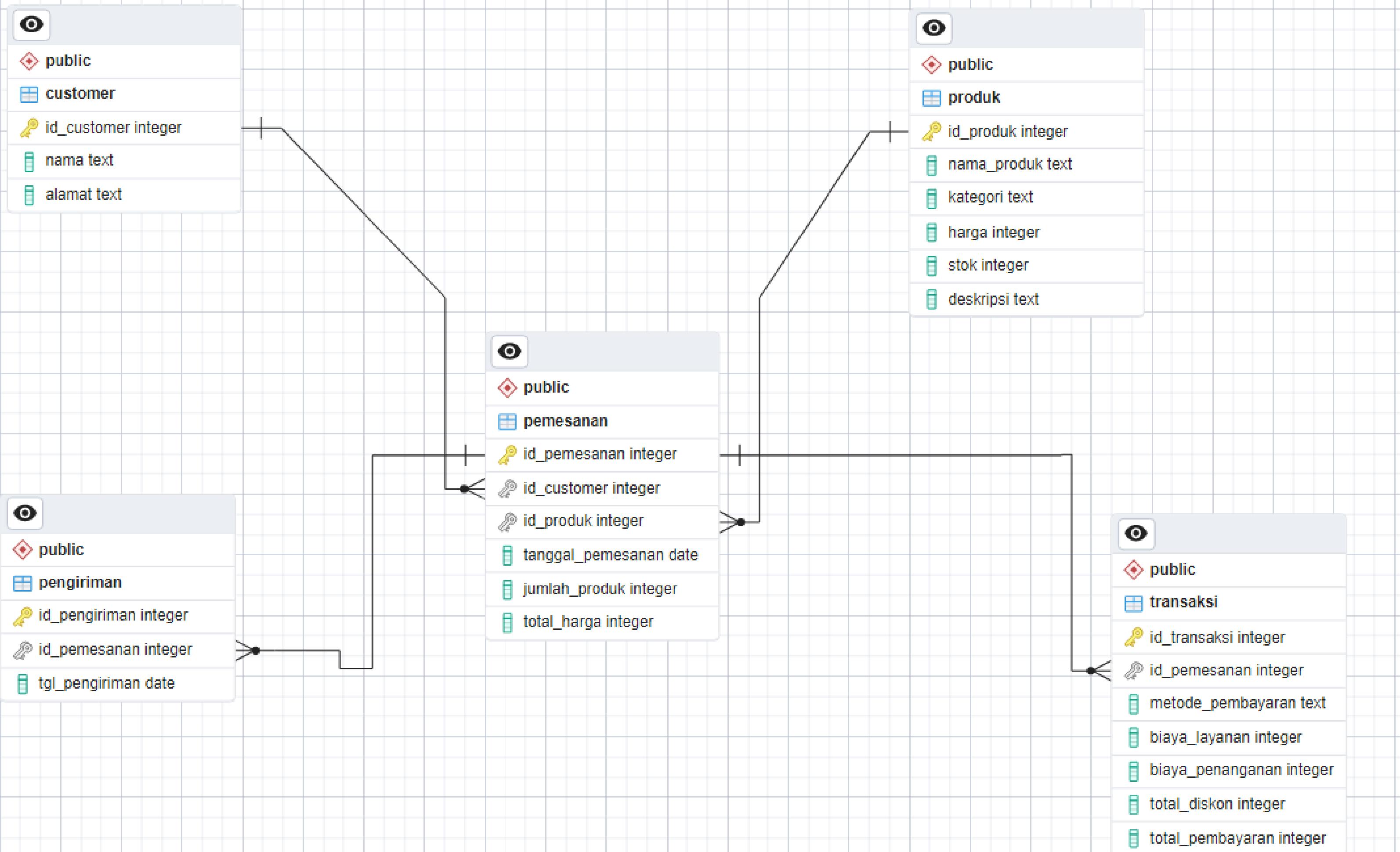
```
create table Pengiriman (
    id_Pengiriman INT PRIMARY KEY NOT NULL,
    id_Pemesanan INT REFERENCES Pemesanan(id_Pemesanan),
    Tgl_Pengiriman DATE NOT NULL
)
```

```
create table Transaksi (
    id_Transaksi INT PRIMARY KEY NOT NULL,
    id_Pemesanan INT REFERENCES Pemesanan(id_Pemesanan),
    Metode_Pembayaran Text NOT NULL,
    Biaya_Layanan INT NOT NULL,
    Biaya_Penanganan INT NOT NULL,
    Total_Diskon INT NOT NULL,
    Total_Pembayaran INT NOT NULL
)
```



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DML

INSERT

```
INSERT INTO Customer (id_customer,Nama,Alamat)  
VALUES (1001, 'Andreas', 'Martubung'),  
       (1002, 'Venda', 'Binjai'),  
       (1003, 'Zakry', 'Medan'),  
       (1004, 'Jovinka', 'Marelan'),  
       (1005, 'Najwa', 'Sibolga'),  
       (1006, 'Kyla', 'Marelan'),  
       (1007, 'Shifa', 'Medan'),  
       (1008, 'Rio', 'Belawan'),  
       (1009, 'Margareth', 'Martubung'),  
       (1010, 'Tabitha', 'Medan'),  
       (1011, 'Fico', 'Medan'),  
       (1012, 'Lukman', 'Tebing Tinggi'),  
       (1013, 'Briyan', 'Sibolga'),  
       (1014, 'Fadlan', 'Medan'),  
       (1015, 'Devia', 'Binjai')
```

SELECT

```
SELECT * FROM Produk
```

DELETE

```
DELETE FROM Pemesanan WHERE id_Pemesanan = 1106
```

UPDATE

```
UPDATE Transaksi SET Metode_Pembayaran = 'Bank BRI' WHERE id_transaksi = 102
```

OPERATOR

Perbandingan

Operator	Keterangan	Operator	Keterangan
=	Sama dengan	<	Kurang dari
!=, <>	Tidak sama dengan	>=	Lebih dari sama dengan
>	Lebih dari	<=	Kurang dari sama dengan

```
SELECT * FROM Customer WHERE Alamat <> 'Marelan'
```

```
SELECT * FROM Produk WHERE Kategori = 'Makeup'
```

```
SELECT * FROM Transaksi WHERE Biaya_Penanganan <= 5000
```

```
SELECT * FROM Pengiriman WHERE Tgl_Pengiriman > (NOW() - INTERVAL '2 week')
```

```
SELECT * FROM Pemesanan WHERE Total_Harga < 100000
```

```
SELECT * FROM Pemesanan WHERE Tanggal_Pemesanan <= '2023-07-03'
```

Aritmatika & Logika

Operator	Deskripsi
+	Tambah
-	Kurang
*	Kali
/	Bagi
%	Modulo (Sisa bagi)
DIV	Hasil bagi

Operator	Deskripsi
AND	Dan
OR	Atau
NOT	Tidak

```
SELECT * FROM Customer WHERE Alamat = 'Medan' OR Alamat = 'Martubung'
```

```
SELECT * FROM Produk WHERE Deskripsi = 'Melembabkan' AND Kategori = 'Skincare'
```

```
SELECT * FROM Pemesanan WHERE NOT Jumlah_Produk = 2
```

```
SELECT * FROM Produk  
WHERE harga > 15000 AND (kategori='Makeup' OR kategori='Skincare')
```

```
SELECT *, harga / 2 AS Separuh_Harga FROM Produk  
SELECT *, Stok * 2 AS DuaKali_Lipat FROM Produk
```

```
SELECT * FROM Pemesanan WHERE (Total_Diskon % 2) = 0
```

```
SELECT *, Total_Diskon - (Biaya_Layanan+Biaya_Penanganan) AS untung FROM Transaksi
```

KLAUSA

WHERE

```
-- SELECT * FROM Produk WHERE id_Produk = 10  
-- SELECT * FROM Produk WHERE id_Produk > 5  
-- SELECT * FROM Produk WHERE id_Produk <= 13  
-- SELECT * FROM Produk WHERE Nama_Produk = 'Cushion'  
-- SELECT * FROM Produk WHERE Kategori = 'Makeup'  
-- SELECT * FROM Produk WHERE Kategori <> 'Makeup'  
-- SELECT * FROM Produk WHERE Harga > 50000  
-- SELECT * FROM Produk WHERE Harga < 50000  
-- SELECT * FROM Produk WHERE Harga = 45000  
-- SELECT * FROM Produk WHERE Harga <> 30000  
-- SELECT * FROM Produk WHERE Stok >= 15  
-- SELECT * FROM Produk WHERE Stok < 15  
-- SELECT * FROM Produk WHERE Stok <> 25
```

IN dan NOT IN

```
SELECT * FROM Customer WHERE id_customer IN (1001,1007)  
SELECT Nama, Alamat FROM Customer WHERE id_Customer IN (1001,1005,1007)  
SELECT * FROM Customer WHERE Alamat IN ('Martubung','Tebing Tinggi')
```

IS NULL

```
SELECT * FROM Produk WHERE id_Produk IN(1,15)  
SELECT * FROM Produk WHERE Harga IN(20000,100000)  
SELECT * FROM Produk WHERE Stok NOT IN(25,75)
```

```
SELECT * FROM Customer WHERE id_customer NOT IN (1001,1007)  
SELECT * FROM Customer WHERE Alamat NOT IN ('Martubung','Tebing Tinggi')
```

```
SELECT * FROM Pengiriman WHERE TglWaktu_Pengiriman is null
```

```
SELECT * FROM Produk WHERE Harga is null
```

BETWEEN dan NOT BETWEEN

```
SELECT * FROM Customer WHERE id_customer BETWEEN 1004 AND 1010
```

```
SELECT * FROM Customer WHERE id_customer NOT BETWEEN 1008 AND 1011
```

```
SELECT * FROM Produk WHERE Stok BETWEEN 15 AND 50
```

```
SELECT * FROM Produk WHERE Harga NOT BETWEEN 40000 AND 70000
```

```
SELECT * FROM Pemesanan WHERE Tanggal_Pemesanan BETWEEN '2023-04-10' AND '2023-05-10'
```

```
SELECT * FROM Pemesanan WHERE Total_Harga NOT BETWEEN 20000 AND 50000
```

```
SELECT * FROM Transaksi WHERE Total_Diskon BETWEEN 5000 AND 8000
```

	id_customer [PK] integer	nama text	alamat text
1	1004	Jovinka	Marelan
2	1005	Najwa	Sibolga
3	1006	Kyla	Marelan
4	1007	Shifa	Medan
5	1008	Rio	Belawan
6	1009	Margareth	Martubung
7	1010	Tabitha	Medan

PATTERN MATCHING

	id_produk [PK] integer	nama_produk text
	2	Toner
	4	Mosturizer
	6	Masker
	7	Primer
	9	Conceler
	14	Eyeliner
	15	Bronzer

```
SELECT * FROM Customer WHERE Nama LIKE '%an'
```

```
SELECT * FROM Customer WHERE Nama LIKE '_____'
```

```
SELECT * FROM Customer WHERE Nama LIKE '%w%'
```

```
SELECT * FROM Customer WHERE Nama LIKE 'J%'
```

```
SELECT * FROM Produk WHERE Nama_Produk LIKE '%er'
```

```
SELECT * FROM Produk WHERE Nama_Produk LIKE 'M%'
```

```
SELECT * FROM Produk WHERE Deskripsi LIKE 'S%'
```

ORDER BY

	id_pemesanan [PK] integer	id_customer integer	id_produk integer	tanggal_pemesanan date	jumlah_produk integer	total_harga integer
1	1102	1005	11	2023-10-15	3	195000
2	1103	1007	3	2023-10-15	1	10000
3	1104	1010	2	2023-08-01	1	60000

```
SELECT * FROM Customer ORDER BY id_customer DESC
SELECT * FROM Customer ORDER BY Alamat ASC
```

	id_customer [PK] integer	nama text	alamat text
1	1010	Tabitha	Medan
2	1011	Fico	Medan

```
SELECT id_Pemesanan, id_Customer, id_Produk, Tanggal_Pemesanan,
Jumlah_Produk, Total_Harga
FROM Pemesanan
LIMIT 3
OFFSET 1
```

```
SELECT * FROM Customer WHERE Alamat = 'Medan' LIMIT 2 OFFSET 2
```

LIMIT dan OFFSET

```
SELECT * FROM Pemesanan ORDER BY Jumlah_Produk ASC
```

```
SELECT * FROM Produk ORDER BY Nama_Produk DESC
```

	id_produk [PK] integer	nama_produk text	kategori text	harga integer	stok integer	deskripsi text
1	2	Toner	Skincare	60000	17	Melembabkan
2	5	Sunscreen	Skincare	45000	10	Melindungi
3	3	Serum	Skincare	100000	28	Mencerahkan
4	7	Primer	Makeup	75000	10	Pore ranger
5	4	Mosturizer	Skincare	55000	22	Melembabkan
6	6	Masker	Skincare	10000	15	Melembutkan
7	13	Maskara	Makeup	30000	75	Waterproof
8	12	Liptint	Makeup	30000	25	Healthy Lips
9	8	Foundation	Makeup	150000	25	Flawless
10	1	Facial Wash	Skincare	40000	10	Mencerahkan
11	11	Eyeshadow	Makeup	65000	100	Pigmented
12	14	Eyeliner	Makeup	45000	28	Waterproof
13	10	Cushion	Makeup	170000	75	Stay matte
14	9	Conceler	Makeup	85000	50	Full coverage
15	15	Bronzer	Makeup	20000	265	Stay matte

ALIAS

```
SELECT Alamat AS Alt FROM Customer  
SELECT id_customer AS ID, Nama AS Nm FROM Customer;  
SELECT COUNT(Alamat) AS Alt, COUNT(DISTINCT Alamat) AS Address FROM Customer
```

Distinct

```
SELECT DISTINCT Metode_Pembayaran FROM Transaksi
```

```
SELECT DISTINCT Alamat FROM Customer  
SELECT COUNT(DISTINCT Alamat) FROM Customer
```



	metode_pembayaran
1	BANK BRI
2	BANK MANDIRI
3	Bank BRI
4	COD
5	ShopeePay
6	BANK BCA
7	BANK BNI
8	BANK PERMATA

FUNGSI AGREGAT

	alamat
1	Belawan
2	Binjai
3	Martubung
4	Sibolga
5	Medan
6	Tebing Tinggi
7	Marelan

Count ()

	count bigint
1	8

	count bigint
1	7

```
SELECT COUNT(DISTINCT Alamat) FROM Customer
```

```
SELECT COUNT(DISTINCT Metode_Pembayaran) FROM Transaksi
```

Group By & Sum()

	sum bigint
1	980000

```
SELECT SUM(Harga) FROM Produk  
SELECT SUM(Harga) FROM Produk WHERE id_Produk = '13'
```

```
SELECT id_Transaksi, SUM(Total_Pembayaran) AS SM, AVG(Total_Pembayaran) AS RT  
FROM Transaksi  
GROUP BY id_Transaksi  
ORDER BY SM DESC
```

Having

```
SELECT id_Produk, SUM (Stok) AS S  
FROM Produk  
GROUP BY id_Produk  
HAVING SUM (Stok) > 10;
```

	id_produk [PK] integer	s bigint
1	4	22
2	10	75
3	6	15
4	13	75
5	2	17
6	11	100

+

7	9	50
8	3	28
9	12	25
10	15	265
11	14	28
12	8	25

MAX()

```
SELECT MAX (Jumlah_Produk) AS jlh,  
MIN (Total_Harga) AS ttl  
FROM Pemesanan
```

	jlh integer	ttl integer
1	5	10000

AVG()

```
SELECT AVG (Total_Pembayaran) AS Total FROM Transaksi
```

	total numeric
1	207733.33333333333

MIN()

```
SELECT MIN (Harga) AS Price,  
MIN (Stok) AS STIK  
FROM Produk
```

	price integer	stik integer
1	10000	10

RIGHT OUTER JOIN

INNER JOIN

```
SELECT Produk.id_Produk, Produk.Kategori,  
Pemesanan.id_Pemesanan,  
Pemesanan.Jumlah_Produk  
FROM Produk INNER JOIN Pemesanan  
ON Produk.id_Produk = Pemesanan.id_Produk
```

LEFT OUTER JOIN

```
SELECT Customer.Nama, Customer.Alamat,  
Pengiriman.id_Pengiriman,  
Pengiriman.TglWaktu_Pengiriman  
FROM Customer LEFT JOIN Pengiriman  
ON Customer.id_Customer = Pengiriman.id_Customer
```

```
SELECT Transaksi.Metode_Pembayaran, Pengiriman.TglWaktu_Pengiriman  
FROM Transaksi RIGHT JOIN Pengiriman  
ON Transaksi.id_Transaksi = Pengiriman.id_Transaksi
```

FULL JOIN

```
SELECT Customer . id_customer, Customer.Nama , Pengiriman.id_customer  
FROM Customer  
FULL OUTER JOIN Pengiriman ON Customer.id_customer=Pengiriman.id_Customer
```

JOINS

**THANK U FOR
YOUR ATTENTION**

