

Final Task Database Admininistrator

**VIX Database Administator
Kalbe Nutrisionals**

Presented by
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normalisasi pencatatan distribusi barang

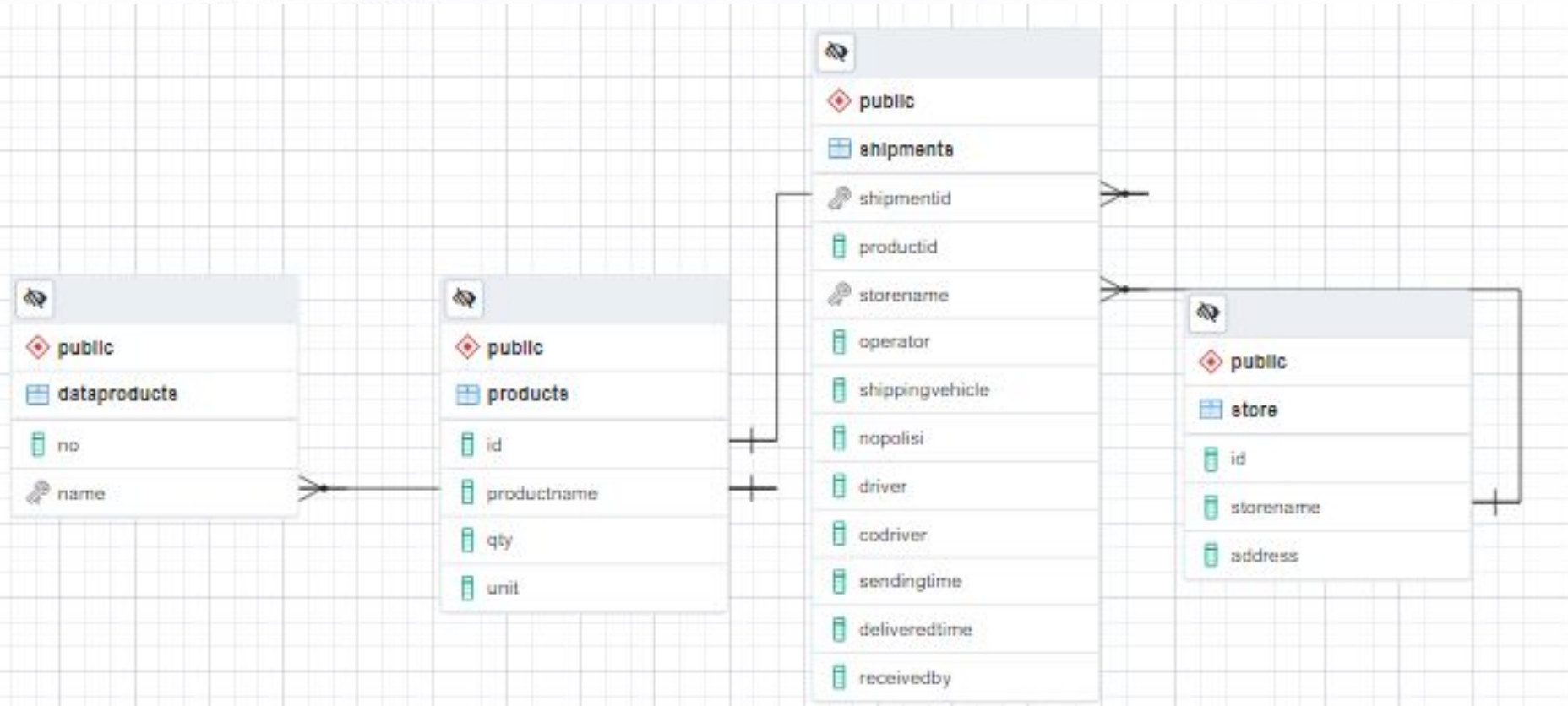
public
dataproduts
no integer
name character varying(255)

public
products
id integer
productname character varying(255)
qty integer
unit character varying(50)

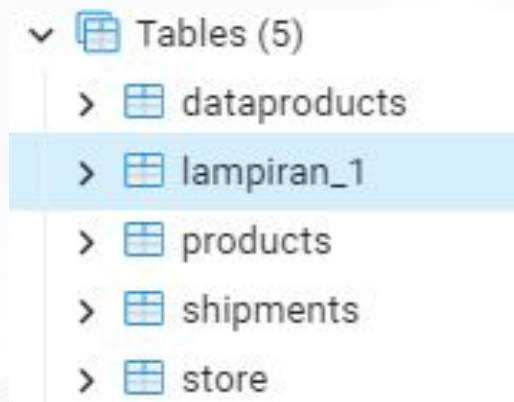
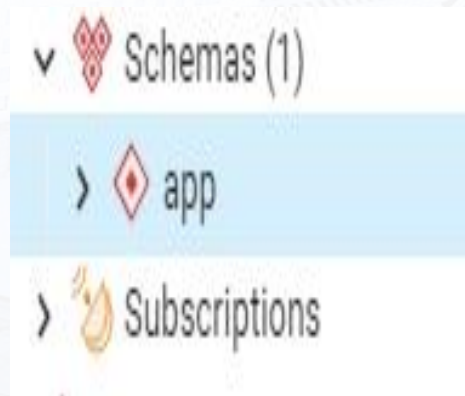
public
shipments
shipmentid integer
productid integer
storename character varying(255)
operator character varying(255)
shippingvehicle character varying(255)
napolisi character varying(20)
driver character varying(255)
codriver character varying(255)
sendingtime timestamp without time zone
deliveredtime timestamp without time zone
receivedby character varying(255)

public
store
id integer
storename character varying(255)
address character varying(255)

ERD berdasarkan hasil dari normalisasi data



database dan struktur table



```
-- Membuat pengguna "backend_user" dengan kata sandi "admin123"
CREATE USER backend_user WITH PASSWORD 'admin123';

-- Memberikan izin INSERT, UPDATE, DELETE, SELECT pada tabel-tabel yang diizinkan
GRANT INSERT, UPDATE, DELETE, SELECT ON Product, Store, Operator, ShippingVehicle,
Driver, CoDriver, ShippingRecord TO backend_user;
```


Query untuk beberapa kebutuhan

Driver dengan pengiriman terbanyak

```
-- 2 driver dengan pengiriman terbanyak bulan Mei 2023
SELECT driver, COUNT(shipmentsid) AS TotalShipments
FROM shipments
WHERE EXTRACT(MONTH FROM sendingtime) = 5 AND EXTRACT(YEAR FROM sendingtime) = 2023
GROUP BY driver
ORDER BY TotalShipments DESC
LIMIT 2;
```

output Messages Notifications



driver	totalshipments
character varying (255)	bigint
Ginanjari	7
Dimas Ahmad	3

Query untuk beberapa kebutuhan

Top 10
barang
dikirm

```
8 -- 10 barang paling sering dikirim bulan Mei 2023
9 SELECT p.productname, COUNT(s.productid) AS TotalShipments
10 FROM shipments s
11 INNER JOIN products p ON s.productid = p.id
12 WHERE EXTRACT(MONTH FROM sendingtime) = 5 AND EXTRACT(YEAR FROM sendingtime) = 2023
13 GROUP BY p.productname
14 ORDER BY TotalShipments DESC
15 LIMIT 10;
```

Data output Messages Notifications



	productname character varying (255)	totalshipments bigint
1	Hydro Coco 250ml	2
2	Entrasol Gold Original	2
3	Hydro Coco 330ml	1
4	Hydro Coco Vita-D 330...	1
5	Milna Biskuit Bayi Apel	1
6	Milna Bubur Organik M...	1
7	Milna Nature Delight A...	1
8	Milna Nature Delight A...	1
9	Entrasol Active Vanilla ...	1
10	Milna Rice Crackers Ap...	1

Query untuk beberapa kebutuhan

Menampilkan semua pengiriman yang belum selesai

```
-- Menampilkan semua pengiriman yang belum selesai  
SELECT *  
FROM lampiran_1  
WHERE "Delivered Time" IS NULL;
```

output Messages Notifications



No	Product Name	qty	unit	Store Destination
integer	character varying (255)	integer	character varying (50)	character varying (255)

Semua pengiriman telah selesai dan hasil query tidak menunjukkan pengiriman yang belum selesai

Buatlah sebuah user defined function

```
CREATE OR REPLACE FUNCTION GenerateShipmentID()
RETURNS VARCHAR(9) AS $$
DECLARE
    yearPart VARCHAR(2);
    monthPart VARCHAR(2);
    dayPart VARCHAR(2);
    sequenceNumber INT;
    formattedSequence VARCHAR(3);
    shipmentID VARCHAR(9);
BEGIN
    -- Mendapatkan tahun dalam format YY (misal: 23 untuk tahun 2023)
    yearPart := TO_CHAR(NOW(), 'YY');
    -- Mendapatkan bulan dalam format MM (misal: 05 untuk Mei)
    monthPart := TO_CHAR(NOW(), 'MM');
    -- Mendapatkan hari dalam format DD (misal: 19 untuk tanggal 19)
    dayPart := TO_CHAR(NOW(), 'DD');
    -- Mendapatkan urutan terbaru dari tabel shipments dan tambahkan 1
    SELECT COALESCE(MAX(CAST(RIGHT(ShipmentID, 3) AS INT)), 0) + 1 INTO sequenceNumber FROM shipments;
    -- Format urutan dengan panjang tetap 3 karakter (misal: 001, 002, 010, dst.)
    formattedSequence := LPAD(sequenceNumber::TEXT, 3, '0');
    -- Gabungkan semua bagian untuk membuat ID Shipment
    shipmentID := yearPart || monthPart || dayPart || formattedSequence;
    RETURN shipmentID;
END;
$$ LANGUAGE plpgsql;
```


2 buah stored procedure

Shipment baru

```
1 CREATE OR REPLACE PROCEDURE CreateNewShipment(  
2     IN shipmentid integer,  
3     IN productid INT,  
4     IN storename VARCHAR(255),  
5     IN operator VARCHAR(255),  
6     IN shippingvehicle VARCHAR(255),  
7     IN nopolisi VARCHAR(50),  
8     IN driver VARCHAR(255),  
9     IN codriver VARCHAR(255),  
10    IN sendingtime TIMESTAMP,  
11    IN deliveredtime TIMESTAMP,  
12    IN receivedby VARCHAR(255)  
13 )  
14 LANGUAGE plpgsql  
15 AS $$  
16 BEGIN  
17     INSERT INTO shipments (shipmentid, productid,storename,  
18     VALUES (shipmentid, productid,storename, operator, shipp  
19 END;  
20 $$;
```

Data output Messages Notifications

CREATE PROCEDURE

Query returned successfully in 99 msec.

2 buah stored procedure

Add product

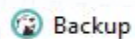
```
1 CREATE OR REPLACE PROCEDURE AddProduct(  
2     IN id INT,  
3     IN productname INT,  
4     IN qty INT,  
5     IN unit VARCHAR(50)  
6 )  
7 LANGUAGE plpgsql  
8 AS $$  
9 BEGIN  
10     INSERT INTO products (id, productname, qty, unit)  
11     VALUES (id, productname, qty, unit);  
12 END;  
13 $$;
```

Data output Messages Notifications

CREATE PROCEDURE

Query returned successfully in 80 msec.

Melakukan Backup Data



Backup

Choose objects to export

Schemas/tables/views which will be exported

✓ Choose objects to export

Backup settings

Backup progress

Objects

☒ public

All

None

☒ dataproducts

☒ lampiran_1

☒ products

☒ shipments

☒ store

☐ Show views

All

None

Save task



Local Client ...

< Back

Next >

Start

Cancel

Thank You



Rakamin
Academy



KALBE