

## Database

### 1. Insert

#### a. operators

Query Editor   Query History

```

1 INSERT INTO public.operators(
2     name, update_at)
3     VALUES ('al','now()');
```

Query Editor   Query History   Scratch Pad

```

1 select * from operators
```

Data Output   Explain   Messages   Notifications

	id [PK] integer	name character varying (255)	created_at timestamp with time zone	update_at timestamp without time zone
1	1	al	2022-08-23 13:53:50.817572+07	2022-08-23 14:07:00.862018
2	2	fi	2022-08-23 13:53:50.817572+07	2022-08-23 14:08:27.864835
3	3	ka	2022-08-23 13:53:50.817572+07	2022-08-23 14:08:33.553117
4	4	nur	2022-08-23 13:53:50.817572+07	2022-08-23 14:09:04.328908
5	5	sya	2022-08-23 13:53:50.817572+07	2022-08-23 14:09:15.693879

#### b. product\_types

Query Editor   Query History

```

1 INSERT INTO public.product_types(
2     name, update_at)
3     VALUES ('internet','now()');
```

Query Editor   Query History   Scratch Pad

```

1 select * from product_types
```

Data Output   Explain   Messages   Notifications

	id [PK] integer	name character varying (255)	created_at timestamp with time zone	update_at timestamp without time zone
1	1	internet	2022-08-23 13:53:50.817572+07	2022-08-23 14:15:21.05455
2	2	combo	2022-08-23 13:53:50.817572+07	2022-08-23 14:15:59.648182
3	3	telfon	2022-08-23 13:53:50.817572+07	2022-08-23 14:16:05.744739

#### c. insert products 1,3 menjadi satu gambar

#### d. insert products 2,1 menjadi satu gambar

#### e. insert products 3,4 menjadi satu gambar

Query Editor   Query History   Scratch Pad ✕

```

1 INSERT INTO public.products(
2     product_type_id, operator_id, code, name, status, update_at)
3     VALUES (3,4,'telfon60','paket telfon 60 menit',1,'now()');
4
5 select * from products;
```

Data Output   Explain   Messages   Notifications

	id [PK] integer	product_type_id integer	operator_id integer	code character varying (50)	name character varying (100)	status smallint	created_at timestamp with time zone	update_at timestamp without ti
1	6	1	3	freedom7	internet 7 hari	1	2022-08-23 13:53:50.8175...	2022-08-23 15:01:51.
2	7	1	3	freedom15	internet 15 hari	1	2022-08-23 13:53:50.8175...	2022-08-23 15:02:26.
3	8	1	3	freedom30	internet 30 hari	1	2022-08-23 13:53:50.8175...	2022-08-23 15:02:53.
4	9	2	1	combo7	paket combo 7 hari	1	2022-08-23 13:53:50.8175...	2022-08-23 15:05:29.
5	10	2	1	combo15	paket combo 15 hari	1	2022-08-23 13:53:50.8175...	2022-08-23 15:05:51.
6	11	2	1	combo30	paket combo 30 hari	1	2022-08-23 13:53:50.8175...	2022-08-23 15:06:02.
7	12	3	4	telfon10	paket telfon 10 menit	1	2022-08-23 13:53:50.8175...	2022-08-23 15:06:54.
8	13	3	4	telfon30	paket telfon 30 menit	1	2022-08-23 13:53:50.8175...	2022-08-23 15:07:10.
9	14	3	4	telfon60	paket telfon 60 menit	1	2022-08-23 13:53:50.8175...	2022-08-23 15:07:37.

## f. product\_descriptions

Query Editor

Query History

```

1  INSERT INTO public.product_descriptions(
2      id, description, update_at)
3      VALUES (14,'paket telfon semua opt. 60 menit selama 15 hari','now');
4
5  select * from product_descriptions;

```

Data Output

Explain

Messages

Notifications

	id integer	description text	created_at timestamp with time zone	update_at timestamp without time zone
1	6	paket internet 7 hari 24 jam	2022-08-23 13:53:50.817572+07	2022-08-23 15:14:21.182129
2	7	paket internet 15 hari 24 jam	2022-08-23 13:53:50.817572+07	2022-08-23 15:23:13.533151
3	8	paket internet 30 hari 24 jam	2022-08-23 13:53:50.817572+07	2022-08-23 15:23:27.462998
4	9	paket internet combo 7 hari ...	2022-08-23 13:53:50.817572+07	2022-08-23 15:23:49.021607
5	10	paket internet combo 15 har...	2022-08-23 13:53:50.817572+07	2022-08-23 15:23:59.736779
6	11	paket internet combo 30 har...	2022-08-23 13:53:50.817572+07	2022-08-23 15:24:16.700907
7	12	paket telfon semua opt. 10 ...	2022-08-23 13:53:50.817572+07	2022-08-23 15:25:21.762735
8	13	paket telfon semua opt. 30 ...	2022-08-23 13:53:50.817572+07	2022-08-23 15:25:37.556535
9	14	paket telfon semua opt. 60 ...	2022-08-23 13:53:50.817572+07	2022-08-23 15:25:47.15256

## g. payment\_methods

Query Editor

Query History

```

1 INSERT INTO public.payment_methods(
2     name,status, update_at)
3     VALUES ('paylater',1,'now');
4
5 select * from payment_methods;

```

Data Output

Explain

Messages

Notifications

	id [PK] int4	name character varying (255)	status smallint	created_at timestamp with time zone	update_at timestamp without time zone
1	1	cash	1	2022-08-23 13:53:50.817572+07	2022-08-23 15:30:36.381965
2	2	qris bank	1	2022-08-23 13:53:50.817572+07	2022-08-23 15:31:15.808355
3	3	paylater	1	2022-08-23 13:53:50.817572+07	2022-08-23 15:31:34.793166

## h. Users

Query Editor

Query History

1

INSERT INTO public.users(

2

status, dob, gender, update\_at)

3

VALUES (1, '2022-08-15', 'P', 'now()');

4

5

select \* from users;

Data Output

Explain

Messages

Notifications

	id [PK] integer	status smallint	dob date	gender character (1)	created_at timestamp with time zone	update_at timestamp without time zone
1	1	1	2022-06-22	L	2022-08-23 13:53:50.817572+07	2022-08-23 15:36:46.917139
2	2	1	2022-06-25	P	2022-08-23 13:53:50.817572+07	2022-08-23 15:37:22.92164
3	3	1	2022-07-27	L	2022-08-23 13:53:50.817572+07	2022-08-23 15:38:21.768272
4	4	1	2022-08-01	L	2022-08-23 13:53:50.817572+07	2022-08-23 15:38:40.011058
5	5	1	2022-08-15	P	2022-08-23 13:53:50.817572+07	2022-08-23 15:38:53.693479

## i. Transactions

Query Editor

Query History

Scratch Pad

1

INSERT INTO public.transactions(

2

user\_id, payment\_method\_id, status, total\_qty, total\_price, update\_at)

3

VALUES (5, 3, 1, 4,33000, 'now()');

Data Output

Explain

Messages

Notifications

	<div><div>id</div><div>[PK] integer</div></div>	<div><div>user_id</div><div>integer</div></div>	<div><div>payment_method_id</div><div>integer</div></div>	<div><div>status</div><div>character varying (10)</div></div>	<div><div>total_qty</div><div>integer</div></div>	<div><div>total_price</div><div>numeric (25,2)</div></div>	<div><div>created_at</div><div>timestamp with time zone</div></div>	<div><div>update_at</div><div>timestamp without time zone</div></div>
1	1	1		2 1	2	20000.00	2022-08-23 13:53:50.817572+07	2022-08-23 15:43:53.327599
2	2	1		1 1	1	15000.00	2022-08-23 13:53:50.817572+07	2022-08-23 15:44:35.744331
3	3	1		3 1	3	45000.00	2022-08-23 13:53:50.817572+07	2022-08-23 15:45:06.867561
4	4	2		1 1	1	55000.00	2022-08-23 13:53:50.817572+07	2022-08-23 15:45:28.195678
5	5	2		2 1	2	65000.00	2022-08-23 13:53:50.817572+07	2022-08-23 15:45:41.335299
6	6	2		3 1	1	85000.00	2022-08-23 13:53:50.817572+07	2022-08-23 15:45:51.653631
7	7	3		1 1	1	35000.00	2022-08-23 13:53:50.817572+07	2022-08-23 15:46:08.107873
8	8	3		2 1	3	85000.00	2022-08-23 13:53:50.817572+07	2022-08-23 15:46:17.212896
9	9	3		3 1	4	13000.00	2022-08-23 13:53:50.817572+07	2022-08-23 15:46:49.863999
10	10	4		1 1	5	44000.00	2022-08-23 13:53:50.817572+07	2022-08-23 15:47:02.803649
11	11	4		2 1	4	4000.00	2022-08-23 13:53:50.817572+07	2022-08-23 15:47:17.215832
12	12	4		3 1	9	100000.00	2022-08-23 13:53:50.817572+07	2022-08-23 15:47:28.035777
13	13	5		1 1	4	50000.00	2022-08-23 13:53:50.817572+07	2022-08-23 15:47:46.886366
14	14	5		2 1	3	780000.00	2022-08-23 13:53:50.817572+07	2022-08-23 15:47:57.201411

## j. Transaction\_detail

Query Editor

Query History

Scratch Pad

```
1 INSERT INTO public.transaction_details(
2     transaction_id, product_id, status, qty, price ,update_at)
3     select id, 7, status,total_qty,total_price, 'now()'
4     from transactions
5     where id = 1 ;
6
7 select * from transaction_details;
```

Data Output

Explain

Messages

Notifications

	transaction_id integer	product_id integer	status character varying (10)	qty integer	price numeric (25,2)	created_at timestamp with time zone	update_at timestamp without time zone
1	1	6	1	2	20000.00	2022-08-23 13:53:50.817572+07	2022-08-23 16:16:02.790864
2	1	9	1	2	20000.00	2022-08-23 13:53:50.817572+07	2022-08-23 16:20:50.324934
3	1	7	1	2	20000.00	2022-08-23 13:53:50.817572+07	2022-08-23 16:21:00.64047
4	2	3	1	1	15000.00	2022-08-23 13:53:50.817572+07	2022-08-23 16:22:49.8295
5	2	10	1	1	15000.00	2022-08-23 13:53:50.817572+07	2022-08-23 16:22:56.358431
6	2	12	1	1	15000.00	2022-08-23 13:53:50.817572+07	2022-08-23 16:23:03.039286
7	3	12	1	3	45000.00	2022-08-23 13:53:50.817572+07	2022-08-23 16:23:12.395734
8	3	3	1	3	45000.00	2022-08-23 13:53:50.817572+07	2022-08-23 16:23:17.558197
9	3	6	1	3	45000.00	2022-08-23 13:53:50.817572+07	2022-08-23 16:23:23.019734
10	4	6	1	1	55000.00	2022-08-23 13:53:50.817572+07	2022-08-23 16:24:01.081457

## 2. Select

## a. User dengan gender Laki Laki /L

Data Output		Explain	Messages	Notifications			
	id [PK] integer	status smallint	dob date	gender character (1)	created_at timestamp with time zone	update_at timestamp without time zone	nama character varying
1	1	1	2022-06-22	L	2022-08-23 13:53:50.817572+07	2022-08-23 15:36:46.917139	alfika
2	2	1	2022-06-25	P	2022-08-23 13:53:50.817572+07	2022-08-23 15:37:22.92164	andita
3	3	1	2022-07-27	L	2022-08-23 13:53:50.817572+07	2022-08-23 15:38:21.768272	kunis
4	4	1	2022-08-01	L	2022-08-23 13:53:50.817572+07	2022-08-23 15:38:40.011058	jamal
5	5	1	2022-08-15	P	2022-08-23 13:53:50.817572+07	2022-08-23 15:38:53.693479	eko

Query Editor

Query History

1

```
select id,nama, gender from users where gender = 'L'
```

Data Output


Explain

Messages

Notifications

	id [PK] integer	nama character varying	gender character (1)
1	1	alfika	L
2	3	kunis	L
3	4	jamal	L

## b. Product dengan id =3

Query Editor		Query History			Scratch Pad 	
1	select * from products where id = 8					
Data Output   Explain   Messages   Notifications						
	id [PK] integer 	product_type_id integer 	operator_id integer 	code character varying (50) 	name character varying	
1	8	1	3	freedom30	internet 30 hari	

## c. Pelanggan 7 hari yang lalu dengan nama mengandung huruf "a"

Query Editor

Query History

1

select nama,gender,created\_at from users

2

where nama like 'a%'

3

and created\_at >= current\_date - interval '6 days';

Data Output

Explain

Messages

Notifications

nama

character varying

gender

character (1)

created\_at

timestamp with time zone

1

alfika

L

2022-08-23 13:53:50.817572+07

2

andita

P

2022-08-23 13:53:50.817572+07

3

jamal

L

2022-08-23 13:53:50.817572+07

## d. Hitung jumlah user dengan gender perempuan

Query Editor

Query History

1

select count(\*) as jumlah\_perempuan

2

from (

3

select nama, gender from users where gender = 'P') as viewing;

Data Output

Explain

Messages

Notifications

jumlah\_perempuan

bigint

1

2

## e. Tampilkan data user sesuai abjad

1

```
select nama, gender ,id from users order by nama
```

Data Output	Explain	Messages	Notifications
<div><div></div><div>nama</div><div>character varying</div></div>	<div><div></div><div>gender</div><div>character (1)</div></div>	<div><div></div><div>id</div><div>[PK] integer</div></div>	
1 alfika	L		1
2 andita	P		2
3 eko	P		5
4 jamal	L		4
5 kunis	L		3

## f. Tampilkan 5 data pada product

Query Editor	Query History	Scratch Pad
<pre>1 select * from products limit 5;</pre>		
Data Output	Explain	Messages
id	product_type_id	operator_id
[PK] integer	integer	integer
code	name	status
character varying (50)	character varying (100)	smallint
created_at		
timestamp with time zone		
1	6	1
2	7	1
3	8	1
4	9	2
5	10	2

## 3. Update

## a. Update product\_id =1 dengan dummy product

Query Editor	Query History	Query Editor	Query History
<pre>1 select id, code, name from products</pre>		<pre>1 update products set name = 'dummy product' where id = 6; 2 select id,code, name from products ;</pre>	
Data Output	Explain	Messages	Notifications
id	code	name	
[PK] integer	character varying (50)	character varying (100)	
1	6	freedom7	internet 7 hari
2	7	freedom15	internet 15 hari
3	8	freedom30	internet 30 hari
4	9	combo7	paket combo 7 hari
5	10	combo15	paket combo 15 hari
6	11	combo30	paket combo 30 hari
7	12	telfon10	paket telfon 10 menit
8	13	telfon30	paket telfon 30 menit
9	14	telfon60	paket telfon 60 menit

## b. Update qty menjadi 3 pada transaction\_details dengan product type\_id =6

Query Editor	Query History	Query Editor	Query History
<pre>1 select product_id,qty,price from transaction_details;</pre>		<pre>1 update transaction_details set qty = 3 where product_id = 6; 2 select product_id,qty,price from transaction_details;</pre>	
Data Output	Explain	Messages	Notifications
product_id	qty	price	
integer	integer	numeric (25,2)	
1	6	2	20000.00
2	9	2	20000.00
3	7	2	20000.00
4	3	1	15000.00
5	10	1	15000.00
6	12	1	15000.00
7	12	3	45000.00
8	3	3	45000.00
9	6	3	45000.00
10	6	1	55000.00
11	13	1	55000.00
12	14	1	55000.00

## 4. Delete

## a. Delete data pada table products dengan id 6

Syarat product type id delete on cascade

Query Editor

Query History

1

select id,product\_type\_id,code,name from products;

Data Output

Explain

Messages

Notifications

	id [PK] integer	product_type_id integer	code character varying (50)	name character varying (100)
1	7	1	freedom15	internet 15 hari
2	8	1	freedom30	internet 30 hari
3	9	2	combo7	paket combo 7 hari
4	10	2	combo15	paket combo 15 hari
5	11	2	combo30	paket combo 30 hari
6	12	3	telfon10	paket telfon 10 menit
7	13	3	telfon30	paket telfon 30 menit
8	14	3	telfon60	paket telfon 60 menit
9	6	1	freedom7	dummy product

Query Editor

Query History

1

DELETE from products WHERE id =6;

2

select id,product\_type\_id,code,name from products;

3

Data Output

Explain

Messages

Notifications

	id [PK] integer	product_type_id integer	code character varying (50)	name character varying (100)
1	7	1	freedom15	internet 15 hari
2	8	1	freedom30	internet 30 hari
3	9	2	combo7	paket combo 7 hari
4	10	2	combo15	paket combo 15 hari
5	11	2	combo30	paket combo 30 hari
6	12	3	telfon10	paket telfon 10 menit
7	13	3	telfon30	paket telfon 30 menit
8	14	3	telfon60	paket telfon 60 menit





## b. Delete pada table products dengan product\_types = 1

Data Output

Explain

Messages

Notifications

 id integer	 description text	 created_at timestamp with time zone	 update_at timestamp without time zone
1	7 paket internet 15 hari 24 jam	2022-08-23 13:53:50.817572+07	2022-08-23 15:23:13.533151
2	8 paket internet 30 hari 24 jam	2022-08-23 13:53:50.817572+07	2022-08-23 15:23:27.462998
3	9 paket internet combo 7 hari 24 jam	2022-08-23 13:53:50.817572+07	2022-08-23 15:23:49.021607
4	10 paket internet combo 15 hari 24 jam	2022-08-23 13:53:50.817572+07	2022-08-23 15:23:59.736779
5	11 paket internet combo 30 hari 24 jam	2022-08-23 13:53:50.817572+07	2022-08-23 15:24:16.700907
6	12 paket telfon semua opt. 10 menit selama 15 hari	2022-08-23 13:53:50.817572+07	2022-08-23 15:25:21.762735
7	13 paket telfon semua opt. 30 menit selama 15 hari	2022-08-23 13:53:50.817572+07	2022-08-23 15:25:37.556535
8	14 paket telfon semua opt. 60 menit selama 15 hari	2022-08-23 13:53:50.817572+07	2022-08-23 15:25:47.15256

Query Editor

Query History

1

DELETE from products WHERE product\_type\_id =1;

2

select id,product\_type\_id,code,name from products;





3

Data Output

Explain

Messages

Notifications

 id [PK] integer	 product_type_id integer	 code character varying (50)	 name character varying (100)
1	9	2 combo7	paket combo 7 hari
2	10	2 combo15	paket combo 15 hari
3	11	2 combo30	paket combo 30 hari
4	12	3 telfon10	paket telfon 10 menit
5	13	3 telfon30	paket telfon 30 menit
6	14	3 telfon60	paket telfon 60 menit

## Join, Union, Sub-query, Function

### 1. Gabungkan data transaksi user\_id 1 dan user\_id 2

Query Editor

Query History

Scratch Pad

1

select \* from transactions where user\_id =1

2

union

3

select \* from transactions where user\_id =2

4

order by user\_id

Data Output

Explain

Messages

Notifications

id

integer

user\_id

integer

payment\_method\_id

integer

status

character varying (10)

total\_qty

integer

total\_price

numeric (25,2)

created\_at

timestamp with time zone

update\_at

timestamp with time zone

1

3

1

3

1

3

45000.00

2022-08-23 13:53:50.817572+07

2022-

2

1

1

2

1

2

20000.00

2022-08-23 13:53:50.817572+07

2022-

3

2

1

1

1

1

15000.00

2022-08-23 13:53:50.817572+07

2022-

4

6

2

3

1

1

85000.00

2022-08-23 13:53:50.817572+07

2022-

5

5

2

2

1

2

65000.00

2022-08-23 13:53:50.817572+07

2022-

6

4

2

1

1

1

55000.00

2022-08-23 13:53:50.817572+07

2022-

### 2. Tampilkan jumlah harga transaksi uder\_id = 1

Query Editor	Query History
<pre> 1 select sum(total_price) from transactions where user_id =1 </pre>	
Data Output	Explain Messages Notifications
sum	
numeric	
1	80000.00

### 3. Tampil data transaksi product\_type 7

Query Editor	Query History
<pre> 1 select sum(price) from transaction_details where product_id =7 ; 2 </pre>	
Data Output	Explain Messages Notifications
sum	
numeric	
1	20000.00

### 4. Tampilkan produk dan tipe produk yang berhubungan

Query Editor

Query History

```
1 select t.product_type_id, t.code,t.name,p.name from product_types p
2 inner join products t
3 on t.product_type_id = p.id
```

Data Output

Explain

Messages

Notifications

	product_type_id integer	code character varying (50)	name character varying (100)	name character varying (255)	
1	2	combo7	paket combo 7 hari	combo	
2	2	combo15	paket combo 15 hari	combo	
3	2	combo30	paket combo 30 hari	combo	
4	3	telfon10	paket telfon 10 menit	telfon	
5	3	telfon30	paket telfon 30 menit	telfon	
6	3	telfon60	paket telfon 60 menit	telfon	



## 5. Tampilan transaksi, nama produk, nama user

Query Editor Query History

```

1 SELECT c.nama,p.name,a.qty,a.price FROM transactions t
2 RIGHT JOIN users AS c ON c.id = t.id
3 RIGHT JOIN transaction_details As a On a.transaction_id = t.id
4 RIGHT JOIN products AS p ON p.id = a.product_id
5 ORDER BY c.nama

```

Data Output Explain Messages Notifications

	nama character varying	name character varying (100)	qty integer	price numeric (25,2)
1	alfika	paket combo 7 hari	2	20000.00
2	andita	paket combo 15 hari	1	15000.00
3	andita	paket telfon 10 menit	1	15000.00
4	jamal	paket telfon 60 menit	1	55000.00
5	jamal	paket telfon 30 menit	1	55000.00
6	kunis	paket telfon 10 menit	3	45000.00
7	[null]	paket combo 30 hari	[null]	[null]

## 6. fungsi hapus transaksi dan transaksi detail berdasarkan id transaksi

Query Editor Query History

```

1 CREATE OR REPLACE FUNCTION delete_transaction(user_id integer)
2 LANGUAGE plpgsql
3 as $$
4 BEGIN
5     DELETE FROM transaction_details
6     WHERE transaction_id = user_id;
7
8     DELETE FROM transactions
9     WHERE id = user_id;
10
11     commit;
12     Return void;
13 END; $$

```

## 7. fungsi hapus detail transaksi dan total\_qty terupdate

Query Editor Query History

```

1 CREATE OR REPLACE FUNCTION delete_transaction_details(user_id integer)
2 LANGUAGE plpgsql
3 as $$
4 Declare reduce integer
5 BEGIN
6
7     SET reduce = (SELECT total_qty FROM transactions WHERE id = user_id);
8     SET reduce = reduce - (SELECT qty FROM transaction_detail WHERE id = user_id);
9
10    DELETE FROM transaction_details WHERE transaction_id = user_id;
11
12    UPDATE transactions SET total_qty = reduce WHERE id = user_id;
13    commit;
14 END; $$

```

## 8. data product yang tidak pernah ada di transaction\_details

```

5 select * from products
6 where id not in (select product_id from transaction_details) ;

```

Data Output Explain Messages Notifications

	id [PK] integer	product_type_id integer	operator_id integer	code character varying (50)	name character varying (100)	status smallint	created_at timestamp with time zone	update_at timestamp with
1	11	2	1	combo30	paket combo 30 hari	1	2022-08-23 13:53:50.817572+07	2022-08-23 15:0