

Basis Data II

Kelompok 2

Teknik Informatika 1

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Bidang

Pasar

Proses pedagang pasar mendapatkan produk dari tengkulak

Database

ERD

Tables

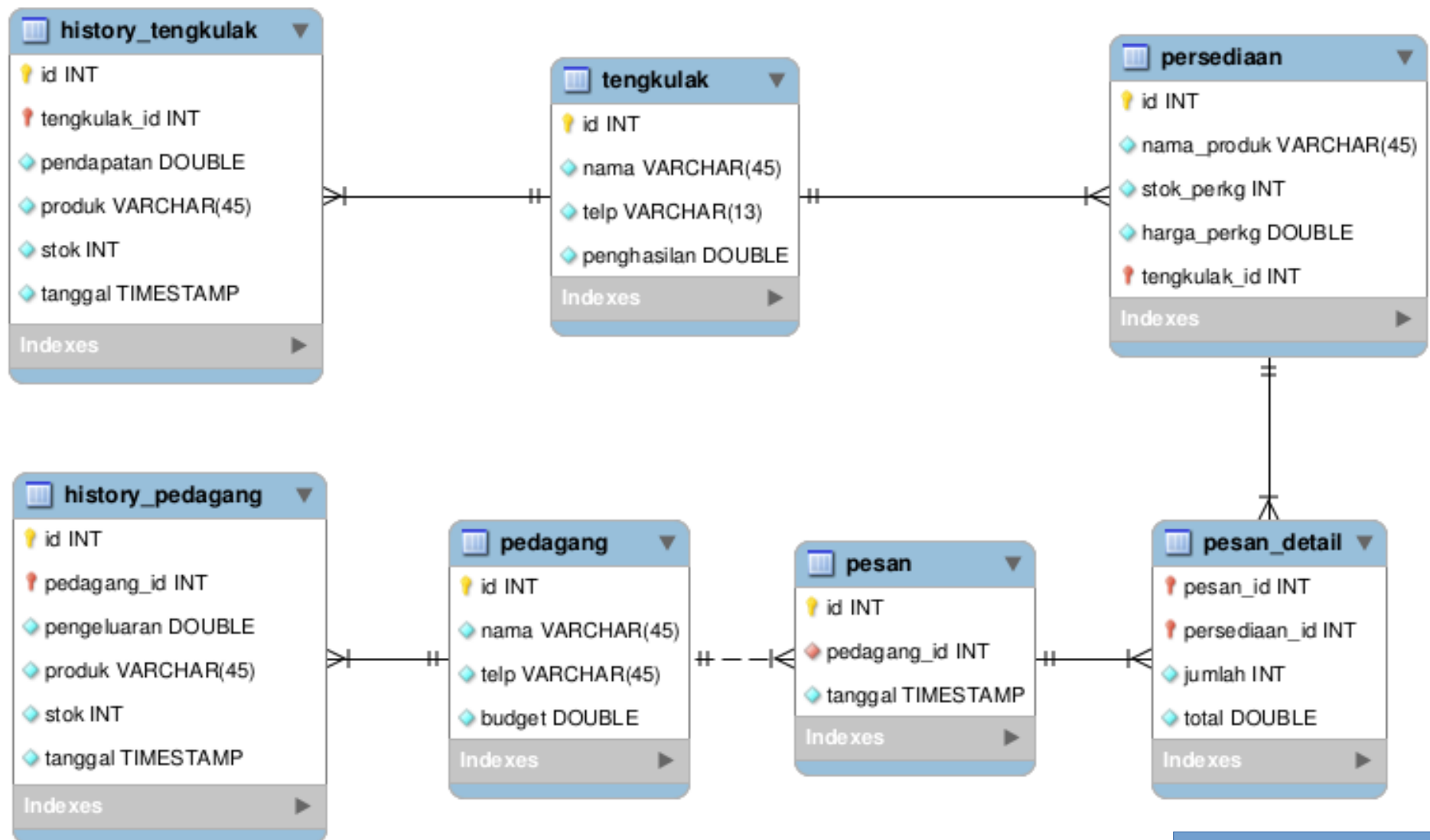
Insert

Function

Trigger

Test Program

```
apsql@mazharrasyad: ~  
mazharrasyad@mazharrasyad:~$ sudo su - apsql  
[sudo] password for mazharrasyad:  
apsql@mazharrasyad:~$ /home/apsql/pg105/bin/pg_ctl -D /home/apsql/datapg/ -l log  
file start  
waiting for server to start.... done  
server started  
apsql@mazharrasyad:~$ /home/apsql/pg105/bin/createdb dbpasar -U apsql -p5555 -h  
localhost  
Password:  
apsql@mazharrasyad:~$ /home/apsql/pg105/bin/psql dbpasar -U apsql -p5555 -h loca  
lhost  
Password for user apsql:  
psql (10.5)  
Type "help" for help.  
dbpasar=#
```



```
create table tengkulak(  
id serial primary key,  
nama varchar(45) not null,  
telp varchar(13) not null unique,  
penghasilan double precision not null  
);
```

```
create table history_tengkulak(  
id serial primary key,  
tengkulak_id int references tengkulak(id),  
pendapatan double precision not null,  
produk varchar(45) not null,  
stok int not null,  
tanggal timestamp default now() not null  
);
```

```
create table persediaan(  
id serial primary key,  
nama_produk varchar(45) not null,  
stok_perkg int not null,  
harga_perkg double precision not null,  
tengkulak_id int references tengkulak(id)  
);
```

```
create table pedagang(  
id serial primary key,  
nama varchar(45) not null,  
telp varchar(13) not null unique,  
budget double precision not null  
);
```

```
create table history_pedagang(  
id serial primary key,  
pedagang_id int references pedagang(id),  
pengeluaran double precision not null,  
produk varchar(45) not null,  
stok int not null,  
tanggal timestamp default now() not null  
);
```

```
create table pesan(  
id serial primary key,  
pedagang_id int references pedagang(id),  
tanggal timestamp default now() not null  
);
```

```
create table pesan_detail(  
pesan_id int references pesan(id) not null,  
persediaan_id int references persediaan(id) not null,  
jumlah int not null,  
total double precision  
);
```

```
insert into tengkulak values  
(1, 'Adil', '08123450', 0),  
(2, 'Iyan', '08123451', 0),  
(3, 'Fikri', '08123452', 0),  
(4, 'Fathan', '08123453', 0),  
(5, 'Shidqi', '08123454', 0);
```

```
insert into persediaan values  
(1, 'Beras', 500, 9450, 1),  
(2, 'Gula', 400, 12500, 2),  
(3, 'Garam', 300, 800, 3),  
(4, 'Cabai', 200, 40000, 4),  
(5, 'Tepung', 100, 19000, 5);
```

```
insert into pedagang values  
(1, 'Messi', '081234560', 1000000),  
(2, 'Ronaldo', '081234561', 2000000),  
(3, 'Ronny', '081234562', 3000000),  
(4, 'Suarez', '081234563', 4000000),  
(5, 'Lampard', '081234564', 5000000);
```

Database

ERD

Tables

Insert

Function

Trigger

create or replace function
transaksi() returns trigger as
\$\$

```
declare
    v_tengkulak_id int;
    v_pedagang_id int;
    v_nama_produk varchar;
    v_stok_perkg int;
    v_harga_perkg double precision;
    v_budget double precision;
    v_total double precision;
begin
    select into v_tengkulak_id tengkulak_id from persediaan where id = new.persediaan_id;
    select into v_pedagang_id pedagang_id from pesan where id = new.pesan_id;
    select into v_nama_produk nama_produk from persediaan where id = new.persediaan_id;
    select into v_stok_perkg stok_perkg from persediaan where id = new.persediaan_id;
    select into v_harga_perkg harga_perkg from persediaan where id = new.persediaan_id;
    select into v_budget budget from pedagang where id = v_pedagang_id;
    v_total = v_harga_perkg * new.jumlah;

    if 0 < new.jumlah and new.jumlah <= v_stok_perkg then
        if v_total <= v_budget then
            insert into history_tengkulak
            values(default, v_tengkulak_id, v_total, v_nama_produk,
            new.jumlah, default);

            insert into history_pedagang
            values(default, v_pedagang_id, v_total, v_nama_produk,
            new.jumlah, default);

            update tengkulak set penghasilan = penghasilan + v_total
            where id = v_tengkulak_id;

            update pedagang set budget = budget - v_total
            where id = v_pedagang_id;

            update persediaan set stok_perkg = stok_perkg - new.jumlah
            where id = new.persediaan_id;

            update pesan_detail set total = v_total
            where pesan_id = new.pesan_id;
        else
            raise exception 'Budget Tidak Mencukupi';
        end if;
    else
        raise exception 'Stok Tidak Mencukupi';
    end if;
    return new;
end
$$ language plpgsql;
```

create or replace function
pesan_produk(int, int, int) returns void as
\$\$

```
declare
    v_id int;
    v_pedagang_id alias for $1;
    v_persediaan_id alias for $2;
    v_jumlah alias for $3;
begin
    select into v_id id from pesan order by id desc limit 1;

    if v_id is null then
        v_id = 1;
    else
        v_id = v_id + 1;
    end if;

    insert into pesan values
    (v_id, v_pedagang_id, default);

    insert into pesan_detail values
    (v_id, v_persediaan_id, v_jumlah, default);
end
$$ language plpgsql;
```

Test Program

```
create trigger trig_transaksi after  
insert on pesan_detail for each row  
execute procedure transaksi();
```

-- Contoh Pesan Produk

```
-- Verifikasi Jika Stok Kurang  
select pesan_produk(1,5,101);
```

```
-- Verifikasi Jika Budget Kurang  
select pesan_produk(1,2,400);
```

```
-- Verifikasi Jika Terpenuhi  
select pesan_produk(1,2,10);
```