SETUP PostgreSQL

login

```
psql -U username -d db_name -h host -p port
```

*default username,db_name and password is **postgres**

shortcut

```
\q         -> quit
\l         -> database list
\du        -> user list
\! clear   -> clear window
\dt        -> table list
```

create user

```
CREATE USER username WITH PASSWORD 'userpass';
```

create database

```
CREATE DATABASE db_name;
```

change db owner

```
ALTER DATABASE db_name OWNER TO username;
```

switch database

```
\c db_name username;
```

DDL

schema

- create

```
CREATE SCHEMA test;
```

- drop

```
DROP SCHEMA test;
```

create table

- public schema

```
create table test_table (
    id serial primary key,
    first_name character varying(60) not null,
    birtdate date not null,
    is_active boolean default false,
    balance decimal not null default 0,
    created_datetime timestamp not null default now()
);
```

- custom schema

```
create table test.test_table (
    id serial primary key,
    first_name character varying(60) not null,
    birtdate date not null,
    is_active boolean default false,
    balance decimal not null default 0,
    created_datetime timestamp not null default now()
);
```

drop table

```
DROP TABLE test_table;
```

alter table

- add column

```
ALTER TABLE test_table ADD COLUMN test_column integer;
```

- drop column

```
ALTER TABLE test_table DROP COLUMN test_column;
```

- change default value

```
ALTER TABLE test_table ALTER COLUMN test_column SET DEFAULT 'this is
default value';
```

- change data type

```
# char
ALTER TABLE test_table ALTER COLUMN test_column TYPE char(100);
# int
ALTER TABLE wallets    ALTER COLUMN test_column TYPE INT USING
test_column::integer;
```

- change column name

```
ALTER TABLE test_table RENAME COLUMN test_column to test_new;
```

- rename table

```
ALTER TABLE test_table RENAME TO test_new;
```

constraint

- not null constraint

```
create table test_table (
    id                  serial,
    first_name          character varying(60)    not null
);
```

- unique constraint

```
# when create table
create table test_table (
    id                  serial,
    first_name          character varying(60)    unique,
    title               character varying(60)    unique
);

# after create table
create table test_table (
    id                  serial,
    first_name          character varying(60),
    title               character varying(60)
);

ALTER TABLE test_table ADD CONSTRAINT ft_unique UNIQUE
(first_name,title);
```

- check

```
# when create table
create table test_table(
    id serial,
    cost numeric check(cost > 0),
    discount numeric check(discount > 0),
    check(cost > discount)
)

# after create table
create table test_table (
    id                  serial,
    first_name          character varying(60)
);

ALTER TABLE test_table ADD CONSTRAINT ft_check CHECK (first_name !=
'');
```