## Text Description automatically generated

A picture containing graphical user interface

Description automatically generated

## SQL Structure

**The Client part:** pdAdmin(Browser / Desktop), psql(Command Line)

**The Server part:** PostgreSQL Database Server

The most common way is, we write command in psql, and pass the command to the server, serve complete the magic computation and return us the result.

Diagram

Description automatically generated

## Access PostgreSQL using Command line

When you first time set the PostgreSQL environment, it asks you to set a super user.

**The pound sign “#**” indicates you’re in the superuser model

Text

Description automatically generated with low confidence

### List existing Database

List all existing database using “\l” command, short for “list”’

And notice that please do not delete the default three databases, which are using by PostgreSQL server. It may cause the whole environment crash if you delete them.

A picture containing table

Description automatically generated

### Create user and database

The command in PostgreSQL is not required to be upper case. But it is a convention for writing SQL, for just get used to it.

“\q” means quit this session[quit from superuser mode]

Text

Description automatically generated with medium confidence

### Connecting to a Database

Psql[connect to the server] people[name the database] pg4e[name the user]

“\dt” shows the relations (table) in the database

Text

Description automatically generated

### Creating a Table

Every line (command line) for PostgreSQL must less than 128bits. So here, we have to write this command into 4 lines. End the command with the semicolon.

“\d+” means: show the schema (data structure of the table).

Text

Description automatically generated