Getting started

postgresql

Install postgresql 9

Ubuntu:

```
sudo apt-get install postgresql-9.4
```

MacOS:

Follow the instructions here:

http://www.postgresql.org/download/macosx/

Create a user

You need to tell postgres that your pc user can login to the database.

Ubuntu:

```
sudo su postgres # you need to be user 'postgres'

createuser -d -l <your-user-name> # in order to run this
```

The latter command creates a user with "create table" privileges, who also may login as the unix user with the same name.

Create a user

Wait, what, what, now?

```
sudo su postgres
```

You run the "switch user" command as your super user, in order to "become" the postgres user (who has privileges to do stuff in the database)

```
createuser -d -l <your-user-name>
```

As "postgres" you run the command to create a user with "your name". The flags mean "with create table privileges" and "with right to login" from the shell (with your unix user name as the database user name).

What was all this for?

Now, you have a user in postgres with the same name as your UNIX user name. You may login to postgres with the psql command without having to specify a database user name (it will now accept the default which is your UNIX user name):

```
rikard@ggslaptop:~$ psql postgres
psql (9.3.10)
Type "help" for help.

postgres=>
```

Your user may now create a new database table

```
CREATE TABLE books(author TEXT, title TEXT, isbn TEXT
PRIMARY KEY, publisher TEXT);
```

OK, I'm set up. Whachamadowithit?

Now, after creating a database, you can either connect to it (while still inside the psql interactive shell):

```
postgres=> \c my_books;
You are now connected to database "my_books" as user "rikard".
my_books=>
```

...Or you can logout, and from the shell connect to your database:

```
rikard@ggslaptop:~$ psql my_books rikard
psql (9.3.10)
Type "help" for help.

my_books=>
```

Why all the fuzz?

It is very convenient to have a UNIX user being able to connect to a database it has privileges for, directly from the command line (or environment) without having to being asked for password...

Now we can actually script SQL commands (as the user) and get results directly! E.g.:

```
rikard@ggslaptop:~$ psql my_books rikard -c "SELECT author, title FROM books WHERE
Publisher='Bonnier';"
    author     | title
---------------+-------
 John Smith    | Life
 James Woody   | Love
 Joan Carmen   | Guns
 Johnanna Boyd | Code
(4 rows)
```

Investigating a table

```
my_books=> \d books;
      Table "public.books"
  Column    | Type | Modifiers
------------+------+------------
 author     | text |
 title      | text |
 isbn       | text | not null
 publisher  | text |
Indexes:
    "books_pkey" PRIMARY KEY, btree (isbn)
```

Listing tables in database

```
my_books=> \dt
          List of relations
 Schema | Name  | Type  | Owner
--------+-------+-------+--------
 public | books | table | rikard
(1 row)
```