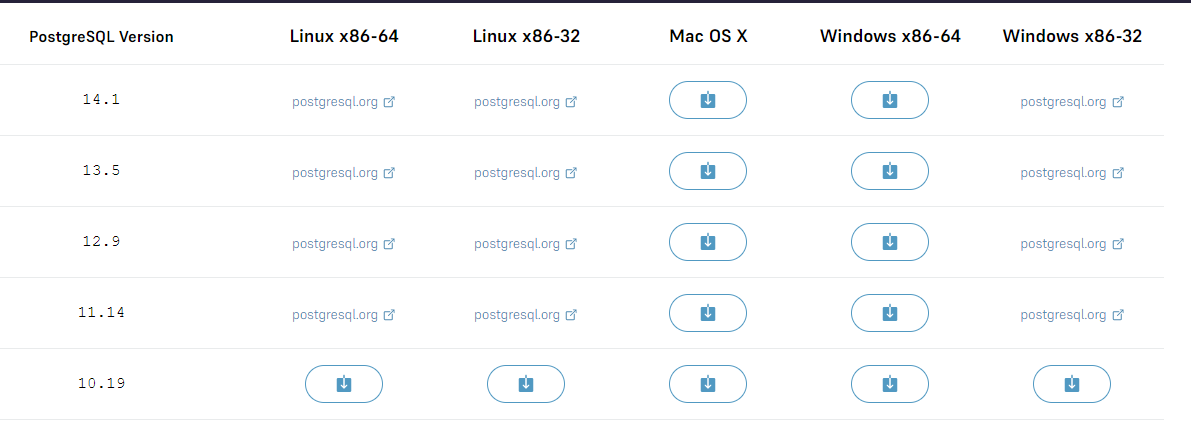
PostgreSQL Documentation

**STEP 1: Download the installer of pSQL**

First, let’s visit this website for a select download.

<https://www.enterprisedb.com/downloads/postgres-postgresql-downloads>

Select the version that you like … I refer that the more stable version is down one of the latest versions.

So we are going to use the **Windows x86-64 version 13.5** 

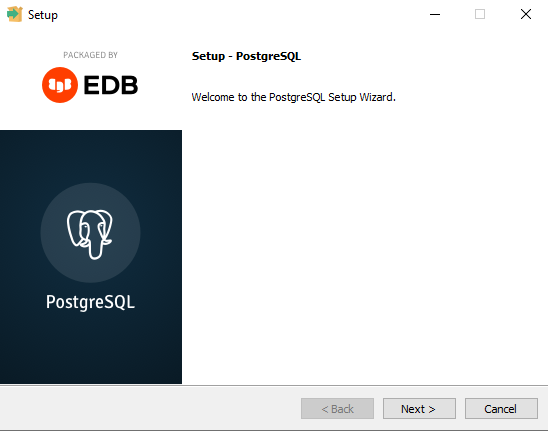
And just wait until the download is done. And let us proceed to install.



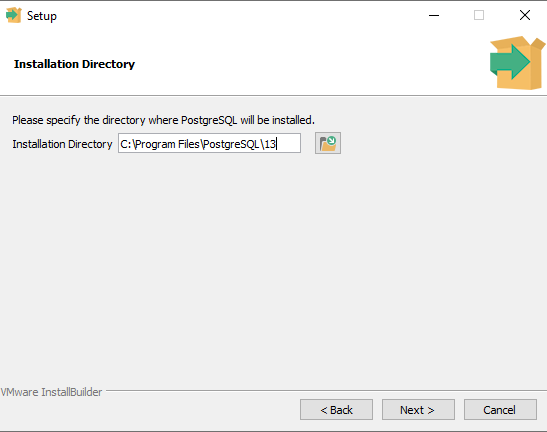
**STEP 2: Install the PostgreSQL**

To install the PostgreSQL open your file explorer and go to download.

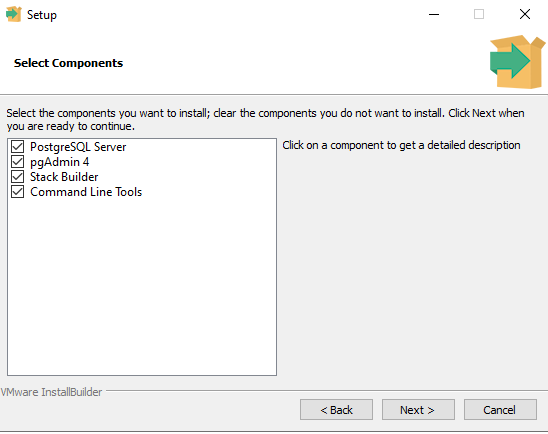
Then open your PostgreSQL installer. Select and press ENTER or Double click it.

Then the installation will show up

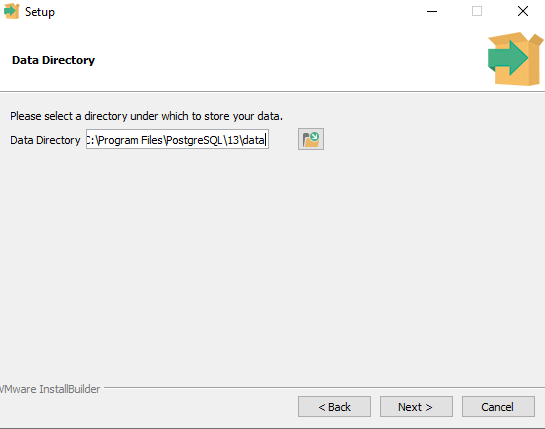
This is the directory where your postgre location. Set it to default.



This section is you going to choose what you want to install. I recommend to install everything we can use all of this sooner or later.

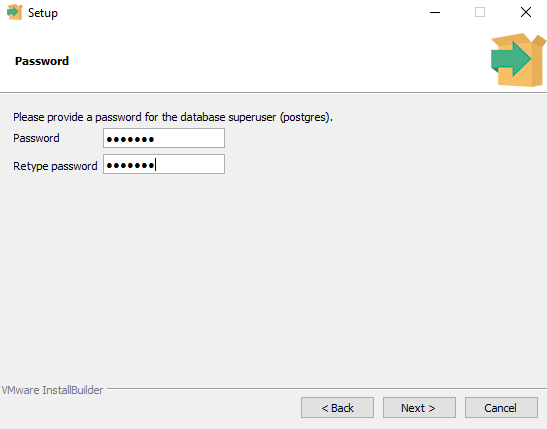


This is your data directory where your all data location. Just set to default and click next.

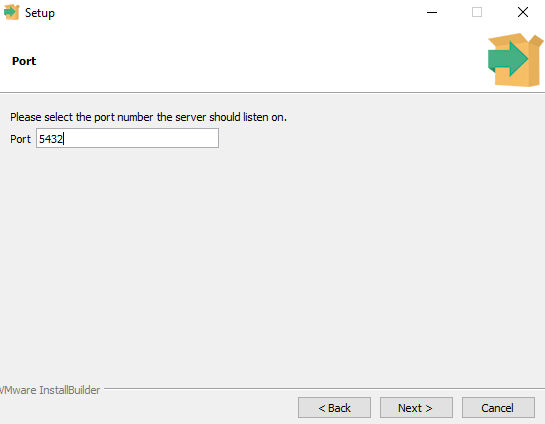


Now, we are going to set a password for you PostgreSQL. Just simply type your password 2times.

And click next.



From here all you need is to set all section to default and simply click next.





Wait until the installation is done. Just simply click finish. And just close the stock builder after that.

**STEP 3:** **Basic PostgreSQL**

To begin lets open our SQL Shell, and simply press ENTER.

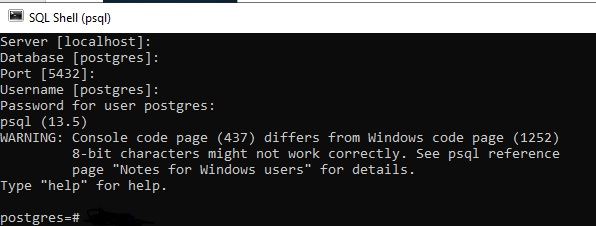
**Server** press ENTER.

**Database** press ENTER.

**Port [5432]** press ENTER.

**Username** press ENTER.

**Password** type your password that you set in postgre installation.



And we are good to go.

**Section 1. Managing Tables**

In PostgreSQL we have a Data Type and there are. **PostgreSQL data types** including Boolean, character, numeric, temporal, array, json, uuid, and special types.

[**https://www.postgresqltutorial.com/postgresql-data-types/**](https://www.postgresqltutorial.com/postgresql-data-types/)

**Boolean**

Character types such as **char, varchar, and text.**

Numeric types such as integer and floating-point number.

Temporal types such as **date, time, timestamp, and interval**

**UUID** for storing Universally Unique Identifiers

**Array** for storing array strings, numbers, etc.

**JSON** stores JSON data

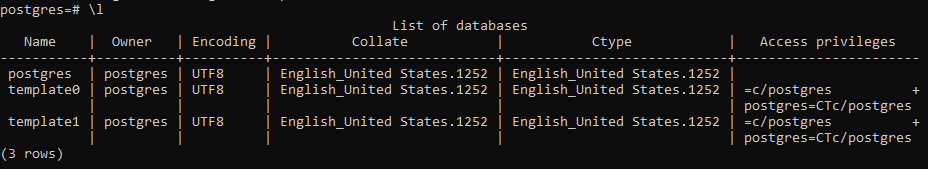
**hstore** stores key-value pair

Special types such as network address and geometric data**.**

**CREATE DATABASE**

First, let’s check our databases by using this command \l

As you see we have only 3 database so we are going to create new database to work on.



We have successfully created our database. check your database list again by using \l

To create a database we need to follow this query.

**CREATE DATABASE tutor;**



Let’s connect to our database so we can create our table inside or database.

Use this command **\c name\_of\_database;**



Now, we are going to create our **TABLE.** To do that just follow the simple query below.

**CREATE TABLE accounts (**

**user\_id serial PRIMARY KEY,**

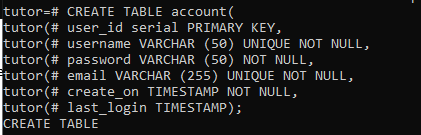
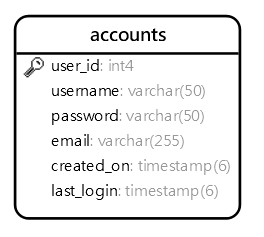
**username VARCHAR ( 50 ) UNIQUE NOT NULL,**

**password VARCHAR ( 50 ) NOT NULL,**

**email VARCHAR ( 255 ) UNIQUE NOT NULL,**

**created\_on TIMESTAMP NOT NULL,**

**last\_login TIMESTAMP );**

We have successfully created our 1st table. Let’s add more tables to work with.

The following statement creates the **roles** table that consists of two columns: role\_id and role\_name.

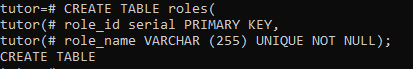
Follow the query below.

**CREATE TABLE roles(**

**role\_id serial PRIMARY KEY,**

**role\_name VARCHAR (255) UNIQUE NOT NULL**

**);**

We have successfully created our 2nd table.

The next statement is to create the **account\_roles** 3rd table that has three columns: user\_id, role\_id, and grant\_date.

**CREATE TABLE account\_roles (**

**user\_id INT NOT NULL,**

**role\_id INT NOT NULL,**

**grant\_date TIMESTAMP,**

**PRIMARY KEY (user\_id, role\_id),**

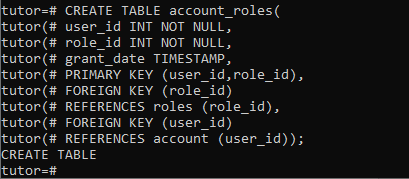
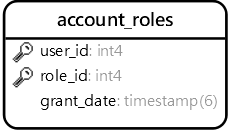
**FOREIGN KEY (role\_id)**

**REFERENCES roles (role\_id),**

**FOREIGN KEY (user\_id)**

**REFERENCES account (user\_id)**

**);**



After we created out table we are now proceed to SELECT INTO statement.