

Tutorial of Postgres on MacOS

There are 2 ways to install Postgres on MacOS

1. Installation package(EDB)
2. Homebrew

Installation package(Strongly recommend this method.)

1. Go to the PostgreSQL [page](#) and download the latest version of PostgreSQL installation package for MacOS.
2. Once the installation package is downloaded, launch it by double clicking the file.
3. For the setup, save the default Installation Directory. In the next step, you may deselect Stack Builder for Select Components. You will need PostgreSQL server, pgAdmin4 and Command line tools. Save the default data directory and hit next.
4. For password, provide one for the database superuser. You will need to remember this password to connect to the Postgres server. For the remainder of the steps, select all default values and hit next.
5. Once the installation is complete, deselect launch Stack Builder and hit Finish. Postgres is now installed on your system.

Homebrew

1. Open the command line terminal and run command "brew install postgresql". (*Assuming that homebrew is already installed on your system*)
2. Now that postgres is installed, run "brew services start postgresql " to start the database. Run "brew services stop postgresql" to stop the postgres database from running.
3. To create a root user, run the following "psql postgres". This will log you into the Postgres server.
Run the following commands -
CREATE ROLE user_name WITH LOGIN PASSWORD 'password';
ALTER ROLE user_name CREATEDB;
4. You can use a database client like TablePlus to connect to this database.

Connect using pgAdmin

1. From Finder > Applications > PostgreSQL 15 > open pgAdmin 4 app.
2. You will then be prompted to enter a master password. This pgAdmin password is different from the Postgres password you set earlier.
3. From Servers > double click PostgreSQL 15(or the version you installed). You will be prompted to enter a password which is the same as you set during the installation.
4. Click Okay and you are now connected to the Postgres database.

Connect using Command line

1. From Finder > Applications > PostgreSQL 15 > open SQL shell(psql).

2. This will open a command line terminal, hit enter for Server, Database, Port, Username if you save all default options while installation of Postgres. Enter the password for postgres user.
3. You will now enter the Postgres shell.

Debugging common connection issues

- PostgreSQL server not running: If the PostgreSQL server is not running, you will not be able to connect to it. Check whether the server is running and restart it if necessary. Run this command to manually start the server:

```
pg_ctl -D /usr/local/var/postgres -l /usr/local/var/postgres/server.log start
```

Refer to [this](#), if the above command still doesn't work.

Importing CSV file in Postgres

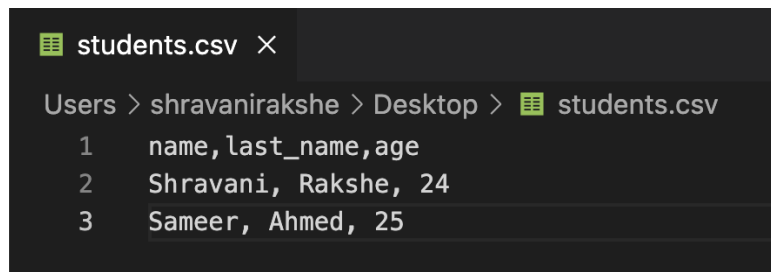
Using pgAdmin or SQL shell(psql), create a Table students. You can use the following query to make this table.

```
CREATE TABLE students (  
  name VARCHAR(50),  
  last_name VARCHAR(50),  
  age int  
)
```

Run "SELECT * from students;". This should return 0 rows.

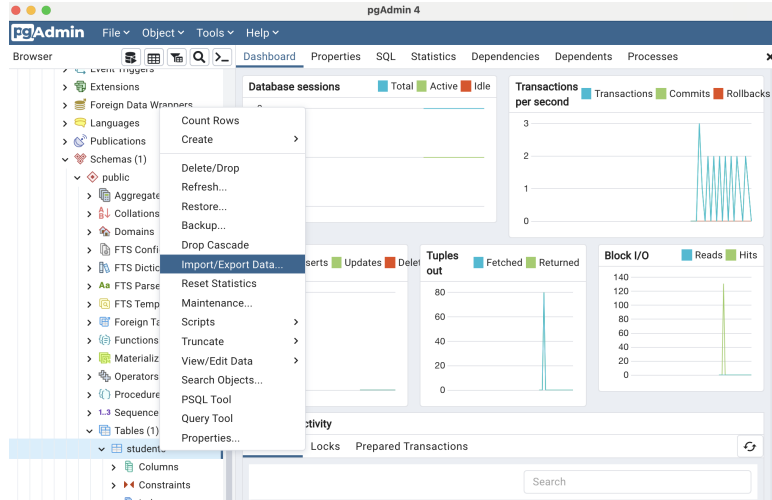
1. Create the CSV file you want to import. Keep in mind that the schema of the table should be the same as the columns in the data file. Also, ensure that data type is consistent in both.

This is what your file should look like.

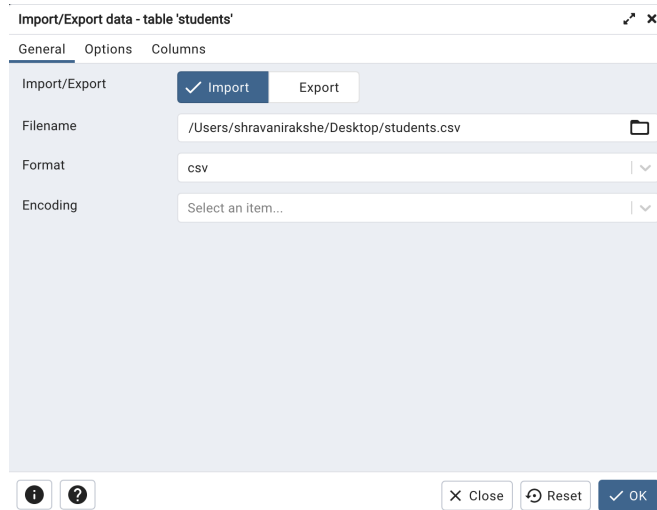


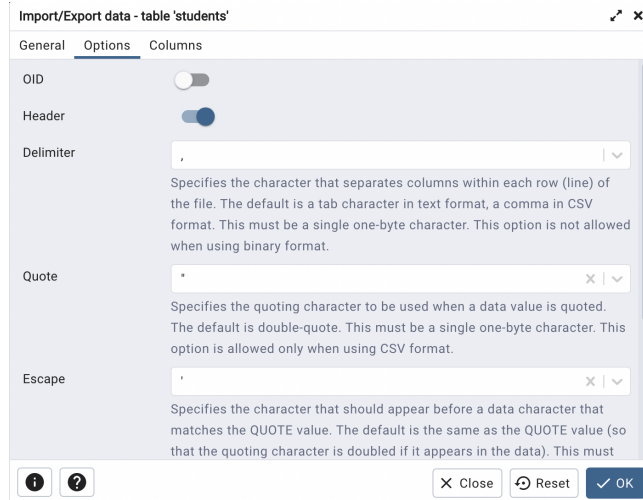
```
students.csv ×  
Users > shravanirakshe > Desktop > students.csv  
1 name, last_name, age  
2 Shravani, Rakshe, 24  
3 Sameer, Ahmed, 25
```

2. Go to pgAdmin and navigate to the table students, this will show under db_name > Schemas > public > Tables > students. Right click on the table, and click on Import/Export Data..



Choose the file path next to Filename. Go to Options tab and select the Header button. If the CSV file has no header, you can skip this. Select Ok.





3. This completes the data import process from the CSV file into the table, if you go and run the same command in Step 1 you will see the rows that have been imported.

```
[workshop=# select * from students;  
Shravani | Rakshe   | 24  
Sameer   | Ahmed    | 25
```

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