Install PostGresql 12 on Pi4 (Raspbian Buster) using Docker

<https://medium.com/@mattvonrohr/installing-postgresql-12-on-raspbian-buster-using-docker-51032c0a0cdf>

1. Pre-requisites:

* Ensure have a running Dicker instance on your Pi.
* Create a folder for storing your PG data:

$mkdir /var/pg\_data

2. Running the PostgreSQL 12 Image

$docker run --name postgres -d --restart unless-stopped -p 5432:5432 -e POSTGRES\_PASSWORD=123456

-v /var/pg\_data:/var/lib/postgresql/data postgres:12.2

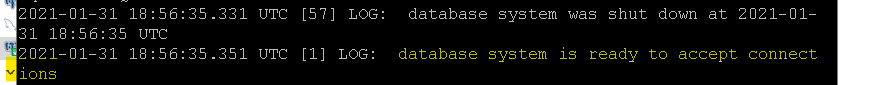
A lot of things to unpack here. Let’s go through each of the parameters:

* --name postgres We name the running container postgres so that we can reference it easily later on.
* -d Running this container in the background (demonized).
* --restart unless-stopped Assigns a restart policy e.g. whenever the server or the Docker-Daemon restart, this container is also restarted. Additionally, if the container itself dies, Docker restarts the container unless it was manually stopped by the user.
* -p Expose the TCP port that PostgreSQL uses for client connections. Make sure you’re behind a firewall as this exposes the port on the host machine.
* -e Set the password for the postgres admin account. **Make sure to change this**.
* -v ${PWD}/pg\_data:... Mount the data-directory (in the current folder) we previously created so that changes to the running PostgreSQL instance are permanently stored between restarts.
* postgres:12.2 The specific version of Postgres that we want to run

1. Check the log file of the running container using

$docker logs postgres

You should see the following line which indicates that the database is up and running:



## (3)Connect to the database using psql (Command Line)

$docker exec -it postgres psql -U postgres

1. Connect to the database using PGAdmin4 (GUI)

Run pgAdmin4 (from any machine), and enter host name or address (e.g, 192.168.0.57:5432)

## (4). Stopping the database

If you want to clean up the containers and all downloaded images:

# Stop containers and delete images  
docker stop postgres  
docker rm postgres  
docker rmi postgres# Remove the data folder (this deletes all database contents)  
sudo rm -rf data