# PosgreSQL database

## Installation

#### Change root password

Ubuntu current user can connect to the database without a password if PostgreSql was installed correctly. Just type the command **psql** in the terminal. If you can't log in, then follow this procedure on terminal:

1. Type command **whoami**. It will report your login name. Let's say that your login is "**JohnTrevolta**".
2. Run the psql command line interface in full admin mode.

sudo -u postgres psql

1. Create database and postgreSQL user for the JohnTrevolta. You will need to press **Enter** after every command:

CREATE DATABASE JohnTrevolta;

CREATE USER JohnTrevolta;

GRANT ALL PRIVILEGES ON DATABASE JohnTrevolta TO JohnTrevolta;

1. Verify and correct permissions of the current user entering command **\du**. JohnTrevolta would gave the same permissions as **postgres** user (**Superuser**, **Create role**, **Replication**, **Bypass RLS**).

ALTER USER JohnTrevolta [ WITH ] CREATEROLE CREATEDB;

It is possible to create user with enhanced permissionsbut standard security rules do not recommend it:

ALTER USER JohnTrevolta [ WITH ] SUPERUSER CREATEROLE

CREATEDB REPLICATION;

There are two concepts in standard SQL: **role** and **user**. **User** is **role** with **LOGIN** attribute in the PostgreSQL database. **CREATE USER** command creates a role with the **LOGIN** attribute. You need to add the **LOGIN** attribute yourself in the **CREATE ROLE** command. Roles without the **LOGIN** attribute are used for creating groups. Group attributes may be inherited by users belonging to that group.

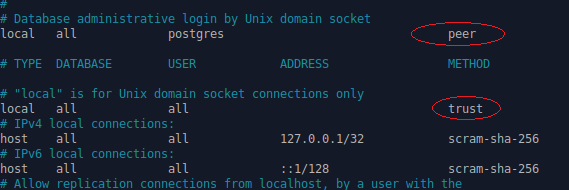
1. Set password if you are going to use the same login from remote computer:

ALTER USER JohnTrevolta WITH ENCRYPTED PASSWORD 'YourPassword';

1. Close psql entering **\q**.
2. Open file /*etc*/postgresql/14/main/pg\_hba.conf in nano or any other text editor:

sudo nano /etc/postgresql/14/main/pg\_hba.conf

1. Verify settings fo **local all**. They must have **peer** and **trust** values (look at picture below):



1. Correct values if they are different, save the file and restart postgreSQL server:

sudo systemctl restart postgresql

1. Now you will be able to connect to postgreSQL by typing the **psql** command on local computer. You would enter command

psql -h host\_name -d database\_name -U JohnTrevolta -W

for connecting from remote computer.

[Run PostgreSQL and pgAdmin in docker for local development using docker compose - Blogs, Ideas, Train of Thoughts (belowthemalt.com)](https://belowthemalt.com/2021/06/09/run-postgresql-and-pgadmin-in-docker-for-local-development-using-docker-compose/)

https://medium.com/coding-blocks/creating-user-database-and-adding-access-on-postgresql-8bfcd2f4a91e

## Backup a Single PostgreSQL Database