<https://projects.100xdevs.com/>

<https://projects.100xdevs.com/tracks/YOSAherHkqWXhOdlE4yE/sql-1>

[Docker](https://www.docker.com/) [creates packaged applications](https://www.howtogeek.com/devops/what-does-docker-do-and-when-should-you-use-it/) called containers. Each container provides an isolated environment similar to a [virtual machine](https://www.howtogeek.com/196060/beginner-geek-how-to-create-and-use-virtual-machines/) (VM). Unlike VMs, Docker containers [don't run a full operating system](https://www.howtogeek.com/devops/whats-the-difference-between-docker-and-a-virtual-machine-vm/). They share your host's kernel and virtualize at a software level.

**Connect to Postgres from Docker:**

1)we need to run postgres in docker.

docker run --name my-postgres -e POSTGRES\_PASSWORD=mysecretpassword -d -p 5432:5432 postgres

2) Add local connection string.

postgresql://postgres:mysecretpassword@localhost:5432/postgres?sslmode=disable

**Connection to Postgres local using command line (psql):**

psql is a terminal based interface for [PostgreSQL](https://database.guide/what-is-postgresql/).

psql enables you to administer PostgreSQL from the command line interface (CLI) as an alternative to using a graphical user interface (GUI), such as pgAdmin, Postico, [Azure Data Studio](https://database.guide/what-is-azure-data-studio/), etc.

**For local psql:**

1. psql

**For Docker package:**

1. Run ‘docker ps’
2. copy the container id.
3. Run ‘docker exec -it <container id> /bin/bash’
4. Now, you will see your container’s terminal. So, your terminal root will be different. You did an SSH into your container.
5. Psql already exists as a cli inside your container. When you started your container’s postgres, along with postgres, you got psql also.
6. Now connect this psql to your localhost. Run ‘psql -h <host-name> -d postgres -U <username>’
7. Enter, asks for password. This is the password for your database.
8. Run you can run your postgres commands in your terminal using psql. It gives ‘postgres=#’ in command prompt.

**Connection to Postgres local using ‘pg’library:**

Pg is a node.js library that you can use in your backend app to store data in the Postgres DB (similar to mongoose). We will be installing this eventually in our app.