

PostgreSQL y pgAdmin con Docker

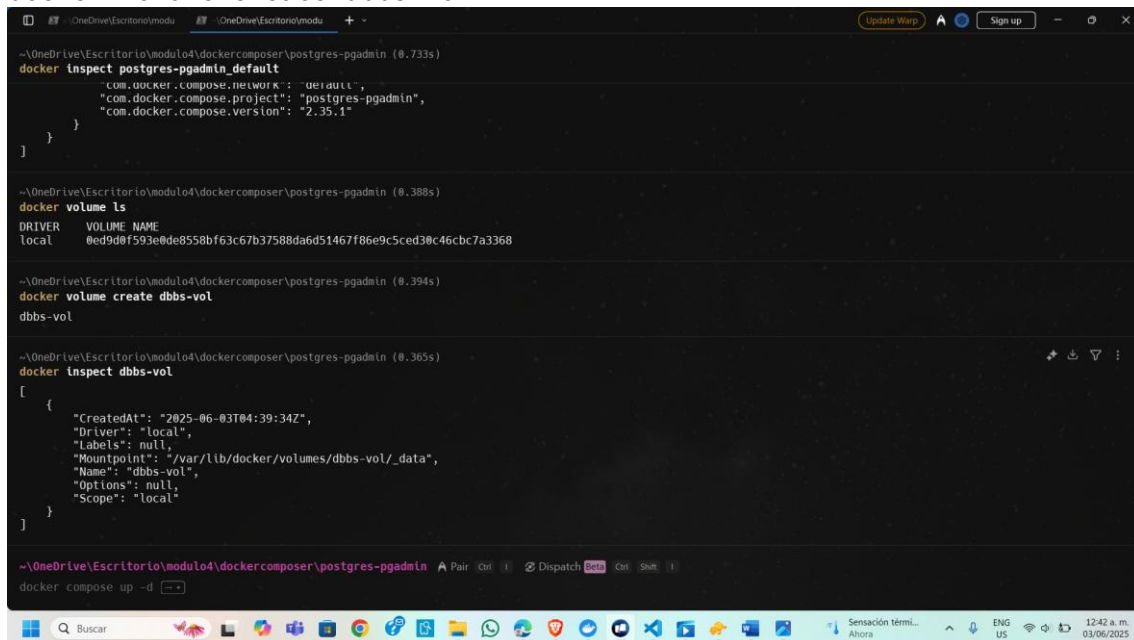
Estudiante: univ. Dennis Brayan Bejarano Saavedra

MODULO IV: DEVOPS

DOCENTE: JOSE CERVANTES

Primer paso: Crear volumen para PostgreSQL

```
docker volume create dbbs-vol
```



```
--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.733s)
docker inspect postgres-pgadmin_default
[
  {
    "com.docker.compose.network": "default",
    "com.docker.compose.project": "postgres-pgadmin",
    "com.docker.compose.version": "2.35.1"
  }
]

--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.388s)
docker volume ls
DRIVER      VOLUME NAME
local       0ed9d0f593e0de8558bf63c67b37588da6d51467f86e9c5ced30c46cbc7a3368

--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.394s)
docker volume create dbbs-vol
dbbs-vol

--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.305s)
docker inspect dbbs-vol
[
  {
    "CreatedAt": "2025-06-03T04:39:34Z",
    "Driver": "local",
    "Labels": null,
    "Mountpoint": "/var/lib/docker/volumes/dbbs-vol/_data",
    "Name": "dbbs-vol",
    "Options": null,
    "Scope": "local"
  }
]

--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin
docker compose up -d
```

Segundo paso: Montar la imagen de PostgreSQL

```
docker container run -d --name postgres-db -e POSTGRES_PASSWORD=PassDocker
-v dbbs-vol:/var/lib/postgresql/data postgres
```

```
--\OneDrive\Escritorio\modul04\dockercomposer\postgres-pgadmin (0.394s)
docker container run -d --name postgres-db -e POSTGRES_PASSWORD=PassDocker -v dbbs-vol:/var/lib/postgresql/data postgres
Run 'docker run --help' for more information

--\OneDrive\Escritorio\modul04\dockercomposer\postgres-pgadmin (32.487s)
docker container run -d --name postgres-db -e POSTGRES_PASSWORD=PassDocker -v dbbs-vol:/var/lib/postgresql/data postgres
Unable to find image 'postgres:latest' locally
latest: Pulling from library/postgres
2bb588ce4e67: Pull complete
82697a7976df: Pull complete
7c852ebdd63e: Pull complete
6ce13d85dabe: Pull complete
e9a82aed48d7: Pull complete
e7aba16d6a5e: Pull complete
418cd7ec9a48: Pull complete
7e11eb1421f3: Pull complete
89ba8b615fa9: Pull complete
bd1fa28722bb: Pull complete
3db9837be7c3: Pull complete
28708ff4e04e: Pull complete
475b0e32b814: Pull complete
Digest: sha256:6efdd0d10dc3cb40d5e33ef84accc5e73161bd3df06029ee8698e5e12c60
Status: Downloaded newer image for postgres:latest
a7266f7cc968b1b31db382ccedd5b386cc2f20d6438a11df191e14f9e47d5

Warp can notify you when long-running commands finish. Learn more Enable Don't show this again

--\OneDrive\Escritorio\modul04\dockercomposer\postgres-pgadmin (0.416s)
docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS          NAMES
a7266f7cc968   postgres      "docker-entrypoint.s..." 2 minutes ago Up 2 minutes  5432/tcp       postgres-db
e3959b4c16ed   postgres:15-alpine "docker-entrypoint.s..." About an hour ago Up About an hour 5432/tcp       postgres_db

--\OneDrive\Escritorio\modul04\dockercomposer\postgres-pgadmin
docker exec -it postgres-db psql -U postgres
```

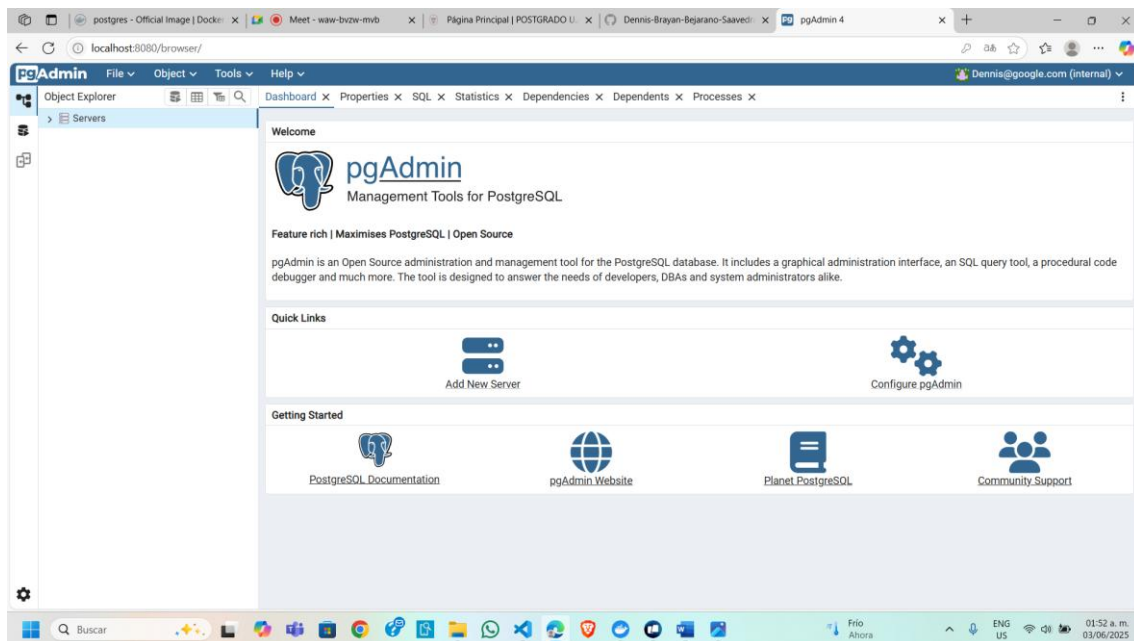
Tercer paso : Crear contenedor pgAdmin

docker container run --name pgAdmin -e PGADMIN_DEFAULT_PASSWORD=pass-pgAdmin -e PGADMIN_DEFAULT_EMAIL=Dennis@google.com -d -p 8080:80 dpape/pgadmin4

```
--\OneDrive\Escritorio\modul04\dockercomposer\postgres-pgadmin (0.416s)
docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS          NAMES
a7266f7cc968   postgres      "docker-entrypoint.s..." 2 minutes ago Up 2 minutes  5432/tcp       postgres-db
e3959b4c16ed   postgres:15-alpine "docker-entrypoint.s..." About an hour ago Up About an hour 5432/tcp       postgres_db

--\OneDrive\Escritorio\modul04\dockercomposer\postgres-pgadmin (2.859s)
docker container run --name pgAdmin -e PGADMIN_DEFAULT_PASSWORD=pass-pgAdmin -e PGADMIN_DEFAULT_EMAIL=Dennis@google.com -d -p 8080:80 dpape/pgadmin4
unknown shorthand flag: 'â' in --name
Usage: docker container run [OPTIONS] IMAGE [COMMAND] [ARG...]
Run 'docker container run --help' for more information

--\OneDrive\Escritorio\modul04\dockercomposer\postgres-pgadmin
docker container run --name pgAdmin -e PGADMIN_DEFAULT_PASSWORD=pass-pgAdmin -e PGADMIN_DEFAULT_EMAIL=Dennis@google.com -d -p 8080:80 dpape/pgadmin4
Unable to find image 'dpape/pgadmin4:latest' locally
latest: Pulling from dpape/pgadmin4
7c48c5894e85: Download complete
e32d37330f9b: Download complete
35d02455d858: Download complete
206980bb262d: Extracting 62 s
218ba7b7b321: Download complete
77da7c991ce: Download complete
494696b8e6e5: Download complete
abdb8f7da7a8: Download complete
19c31ea47cfb: Download complete
5c5e4eb233fb: Download complete
f3888f615432: Download complete
f1822174b0c9: Pull complete
02f73b38c1ff: Download complete
8f4e00ca85d9: Download complete
9b4f03ce919b: Download complete
3c2f6c5c12fe: Download complete
```



Crear la red personalizada

docker network create dennis

```

~\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.344s)
docker network connect ls
Usage: docker network connect [OPTIONS] NETWORK CONTAINER
Run 'docker network connect --help' for more information

~\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (2.221s)
docker network connect --help
Usage: docker network connect [OPTIONS] NETWORK CONTAINER
Connect a container to a network

Options:
  --alias strings      Add network-scoped alias for the container
  --driver-opt strings driver options for the network
  --gw-priority int     Highest gw-priority provides the default gateway. Accepts positive and negative values.
  --ip string          IPv4 address (e.g., "172.30.100.104")
  --ip6 string         IPv6 address (e.g., "2001:db8::33")
  --link list          Add link to another container
  --link-local-ip strings Add a link-local address for the container

~\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.438s)
docker network create dennis
679012d3ea52a2f759c2d1941d0e56b12faf78c1aa189eef4b7887e7f97fac1e

~\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.495s)
docker network connect dennis postgres-db

Inspect the docker network. Ctrl Shift Q
~\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin Pair Ctrl I Dispatch Beta Ctrl Shift I
docker network connect dennis pgadmin

```

Cuarto paso: Conectar ambos contenedores a la red

docker network connect dennis postgres-db

```
--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.344s)
docker network connect ls

Usage: docker network connect [OPTIONS] NETWORK CONTAINER

Run 'docker network connect --help' for more information

--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (2.221s)
docker network connect --help
Usage: docker network connect [OPTIONS] NETWORK CONTAINER

Connect a container to a network

Options:
  --alias strings      Add network-scoped alias for the container
  --driver-opt strings  driver options for the network
  --gw-priority int     Highest gw-priority provides the default
                       gateway. Accepts positive and negative values.
  --ip string          IPv4 address (e.g., "172.30.100.104")
  --ip6 string         IPv6 address (e.g., "2001:db8::33")
  --link list          Add link to another container
  --link-local-ip strings  Add a link-local address for the container

--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.438s)
docker network create dennis
679012d3ea52a2f759c2d1941d0e56b12faf78c1aa189eef4b7887e7f97fac1e

--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.495s)
docker network connect dennis postgres-db

A Inspect the docker network. Ctrl Shift I

--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin A Pair Ctrl I Dispatch Beta Ctrl Shift I
docker network connect dennis pgadmin
```

docker network connect dennis pgAdmin

```
--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.438s)
docker network connect --help

--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.438s)
docker network create dennis
679012d3ea52a2f759c2d1941d0e56b12faf78c1aa189eef4b7887e7f97fac1e

--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.495s)
docker network connect dennis postgres-db

--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.366s)
docker network connect dennis .\pgadmin.txt
Error response from daemon: No such container: .\pgadmin.txt

--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.329s)
docker network connect dennis .\pgadmin.txt4
Error response from daemon: No such container: .\pgadmin.txt4

--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.313s)
docker network connect dennis .\pgadmin.txt4
Error response from daemon: No such container: .\pgadmin.txt4

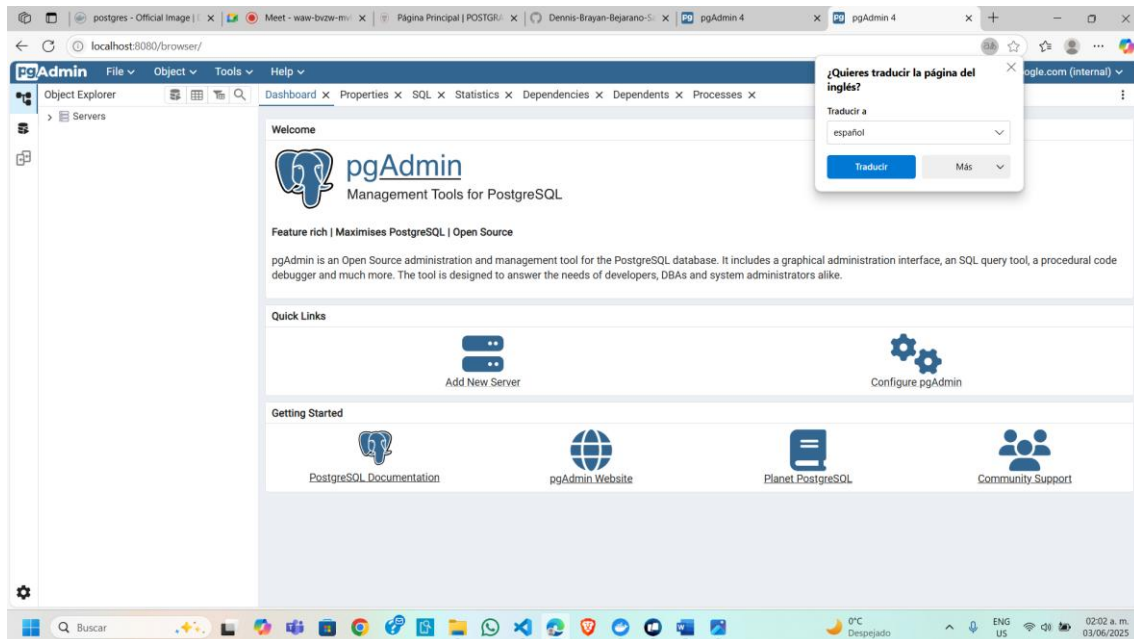
--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.313s)
docker network connect dennis pass-pgAdmin
Error response from daemon: No such container: pass-pgAdmin

--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin (0.684s)
docker network connect dennis pgAdmin

--\OneDrive\Escritorio\modulo4\dockercomposer\postgres-pgadmin A Pair Ctrl I Dispatch Beta Ctrl Shift I
docker ps
```

Quinto paso: Acceder a pgAdmin

1. Abrir navegador web
2. Ir a: <http://localhost:8080>
3. Iniciar sesión con:
 - **Email:** Dennis@google.com
 - **Contraseña:** pass-pgAdmin



Sexto paso: Conectar PostgreSQL desde pgAdmin

1. En pgAdmin, hacer clic derecho en "Servers" → "Create" → "Server"
2. En la pestaña "General":
 - **Name:** PostgreSQL Docker
3. En la pestaña "Connection":
 - **Host name/address:** postgres-db
 - **Port:** 5432
 - **Username:** Dennis
 - **Password:** PassDocker
4. Hacer clic en "Save"

