EXAMEN N°1

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MODULO IV: DEVOPS Y DESPLIEGUE	Docker

1. **Crear un volumen para almacenar la información de la base de datos**

   docker COMANDO CREAR NOMBRE-VOLUMEN =(jhon Albert iscoya Ayarachi=> jafa-vol)

```
~\OneDrive\Documentos\MUDULO4\examen (0.65s)
docker volume create jafa-vol

jafa-vol


~\OneDrive\Documentos\MUDULO4\examen (1.037s)
docker volume ls
DRIVER      VOLUME NAME
local       1d70bffa29e3ff279c1c8a531e3a45483c5f443232e23651b4381cec617b5a43
local       1ef20dd09140082d23f7dc12006e8245a91eea19424ba6fc0b2bc80668ea3feb
local       8ca7d77a7ebbd01e61f8ab4127f49c0ddf2b3c8785c433c0958dd85d3d836f8c
local       23e1087d49cf209c89ba7d967ae4e1ab8f696fc4374249cebfe80e82b321cd32
local       54daae45992ad4a1752a05cb2f380dbaff810cb4b599896923ba2477729f2d88
local       536e01c87353d6d40ae832efafaf9e5078a2a8e334835a7337745c72126e29fa
local       946c7229edbe807b09495b1a76452f0a91935c6566b1fbab8df52c018e5daa76
local       c362e0f0d44a295c895d1a3a7ed961479df752a4d13f7f62b13bda2d0e107063
local       db_data
local       devops_db
local       fef19f79a96d88cbb4b5e5e6536b49aa56fb36a5ae18158c3d8eb6b4779c457a
local       jafa-vol
```

2. **Montar la imagen de postgres**
   a. docker container run ....
      i. *-e POSTGRES_PASSWORD=PassDocker*
      ii. *-v postgres-db:/PATH/DE/LA/BASE/DE/DATOS (esto verificar en Dockerhub)*

```
~\OneDrive\Documentos\MODULO4\examen (3m 12.92s)
docker container run -d --name postgres-db -e POSTGRES_PASSWORD=PassDocker -v jafa-vol:/var/lib/postgresql/data
--network jafa-red postgres
2bb588ce4e67: Pull complete
e9a82aed48d7: Pull complete
89ba8b615fa9: Pull complete
bd1fa28722bb: Pull complete
7e11eb1421f3: Pull complete
82697a7976df: Pull complete
Digest: sha256:6efd0df010dc3cb40d5e33e3ef84acecc5e73161bd3df06029ee8698e5e12c60
Status: Downloaded newer image for postgres:latest
ad1f78e661b44a3df68a30f28b76c5e6c36ea48b5df6ac11cdaefdf660a87255
```

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

A List the running docker containers.   Ctrl Shift ⏎

~\OneDrive\Documentos\MUDULO4\examen A Pair Ctrl I   ⊗ Dispatch Beta Ctrl Shift I

3. **Crear contenedor pgAdmin**
   a. **docker container run**
      --name pgAdmin
      -e PGADMIN_DEFAULT_PASSWORD=pass-pgAdmin
      -e PGADMIN_DEFAULT_EMAIL=correo@google.com
      -dp 8080:80
      dpage/pgadmin4

```
~\OneDrive\Documentos\MUDULO4\examen (2.098s)
docker container run -d --name pgAdmin -e PGADMIN_DEFAULT_EMAIL=jhon_correo@google.com -e PGADMIN_DEFAULT_PASSWOR
D=pass-pgAdmin --network jafa-red -p 8080:80 dpage/pgadmin4
1e1287742d11777903d16e84891059a89fdd359847eb7c985f9b70ad193921c1
```

A Check the container status. Ctrl Shift ⏎

~\OneDrive\Documentos\MUDULO4\examen   A Pair Ctrl | ⊗ Dispatch Beta Ctrl Shift |

docker container ls →▾

```
~\OneDrive\Documentos\MUDULO4\examen (0.936s)
docker container ls
CONTAINER ID   IMAGE              COMMAND              CREATED          STATUS          PORTS                        NAMES
1e1287742d11   dpage/pgadmin4     "/entrypoint.sh"     38 seconds ago   Up 36 seconds   443/tcp, 0.0.0.0:8080->80/tcp   pgAdmin
ad1f78e661b4   postgres           "docker-entrypoint.s…"  15 minutes ago   Up 15 minutes   5432/tcp                     postgres-db
234434f81679   ubuntu             "/bin/bash"          3 hours ago      Up 3 hours                                   ubuntu_mod4
f2d8d03cae6d   ubuntu             "/bin/bash"          4 hours ago      Up 4 hours                                   ubuntu
```

4. **Ingresar a pgAdmin con las credenciales**
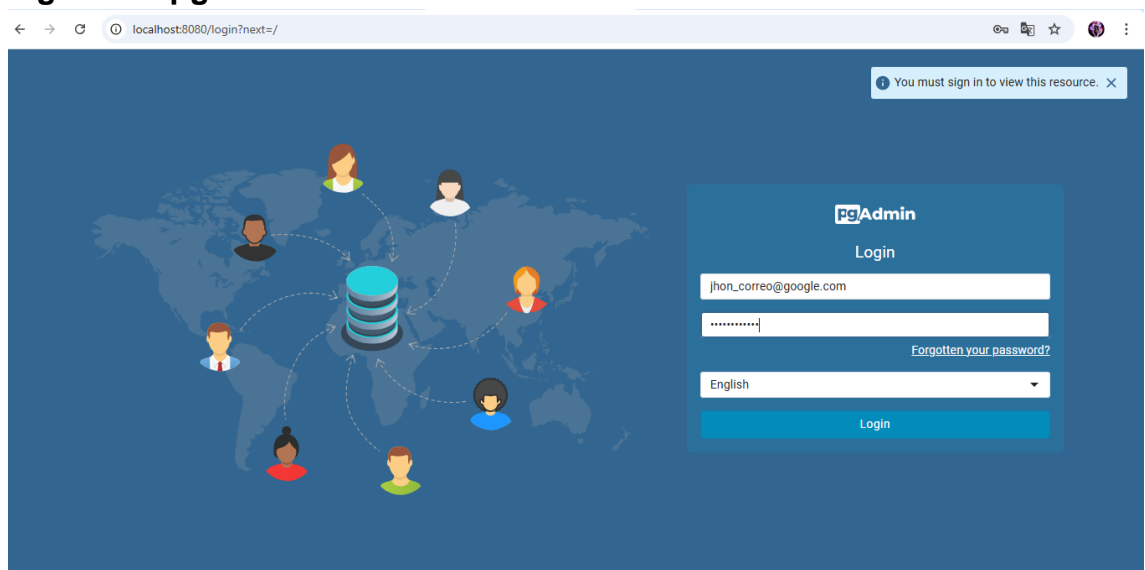
pgAdmin   File ∨   Object ∨   Tools ∨   Help ∨   jhon_correo@google.com (internal) ∨

Object Explorer

Dashboard ✕   Properties ✕   SQL ✕   Statistics ✕   Dependencies ✕   Dependents ✕   Processes ✕

> Servers

Welcome

pgAdmin
Management Tools for PostgreSQL

Feature rich | Maximises PostgreSQL | Open Source

pgAdmin is an Open Source administration and management tool for the PostgreSQL database. It includes a graphical administration interface, an SQL query tool, a procedural code debugger and much more. The tool is designed to answer the needs of developers, DBAs and system administrators alike.

Quick Links

Add New Server   Configure pgAdmin

Getting Started

PostgreSQL Documentation   pgAdmin Website   Planet PostgreSQL   Community Support

---

Register - Server   ✕

General   **Connection**   Parameters   SSH Tunnel   Advanced   Post Connection SQL   Tags

Host name/address	postgres-db
Port	5432
Maintenance database	postgres
Username	postgres
Kerberos authentication?	⬤ off
Password	••••••••••
Save password?	⬤ off
Role	
Service	

ⓘ   ❓   ✕ Close   ↺ Reset   💾 Save

---

pgAdmin   File ∨   Object ∨   Tools ∨   Help ∨   jhon_correo@google.com (internal) ∨

Object Explorer

Dashboard ✕   Properties ✕   SQL ✕   Statistics ✕   Dependencies ✕   Dependents ✕   Processes ✕

- ∨ Servers (1)
  - ∨ postgres-db-jhon
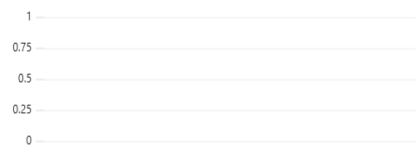   - ∨ Databases (1)
      - ∨ postgres
        - > Casts
        - > Catalogs
        - > Event Triggers
        - > Extensions
        - > Foreign Data Wrappers
        - > Languages
        - > Publications
        - > Schemas
        - > Subscriptions
    - > Login/Group Roles
    - > Tablespaces

Activity   State   Configuration   Logs   System
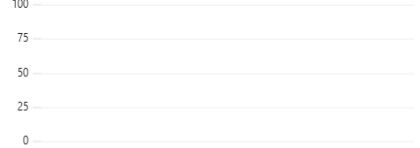
Database sessions	Total ■ Active ■ Idle
1	
0.75	
0.5	
0.25	
0	
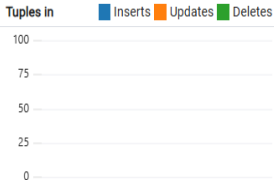
Transactions per second	Transactions ■ Commits ■ Rollbacks
100	
75	
50	
25	
0	
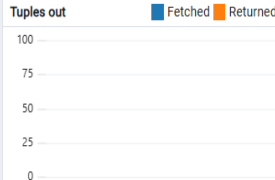
Tuples in	Inserts ■ Updates ■ Deletes
100	
75	
50	
25	
0	

Tuples out	Fetched ■ Returned
100	
75	
50	
25	
0	

Block I/O	Reads ■ Hits
100	
75	
50	
25	
0	

5. Conectar ambos contenedores a la red jafa-red

~\OneDrive\Documentos\MUDULO4\examen (1.458s)
docker network create jafa-red

ce70d8b3ea51eea1f7ffff80d2cce6ce0b0f6c3166fd69d167873f561a489ed6

~\OneDrive\Documentos\MUDULO4\examen (0.988s)
docker network ls

NETWORK ID   NAME   DRIVER   SCOPE
b79b8c1bc868   bridge   bridge   local
375adf2459be   docker-compose_default   bridge   local
83634fbd0407   host   host   local
ce70d8b3ea51   jafa-red   bridge   local
758d9ad78fbd   none   null   local
43697e17dbed   postgres-pgadmin_default   bridge   local

docker network inspect jafa-red
[
    {
        "Name": "jafa-red",
        "Id": "ce70d8b3ea51eea1f7ffff80d2cce6ce0b0f6c3166fd69d167873f561a489ed6",
        "Created": "2025-06-03T02:48:28.249263824Z",
        "Scope": "local",
        "Driver": "bridge",
        "EnableIPv4": true,
        "EnableIPv6": false,
        "IPAM": {
            "Driver": "default",
            "Options": {},
            "Config": [
                {
                    "Subnet": "172.20.0.0/16",
                    "Gateway": "172.20.0.1"
                }
            ]
        },
        "Internal": false,
        "Attachable": false,
        "Ingress": false,
        "ConfigFrom": {