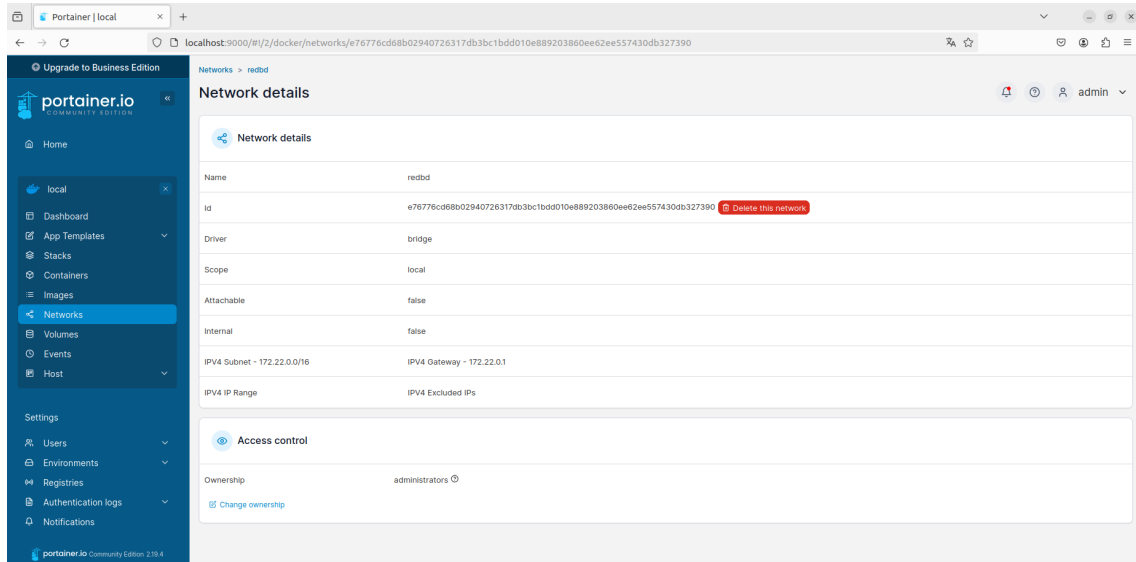


Ejercicio 3 - contenedores en red: Adminer y MariaDB

Realizado por: Laura Suárez Suárez

1. Crea una red bridge redbd.



2. Crea un contenedor con una imagen de mariaDB que estará en la red redbd . Este contenedor se ejecutará en segundo plano, y será accesible a través del puerto 3306. (Es necesario definir la contraseña del usuario root y un volumen de datos persistente).

```
$ docker run -d --name mariadb-container -e MYSQL_ROOT_PASSWORD=1234 -p 3306:3306 --network redbd -v mariadb-data:/var/lib/mysql mariadb
```

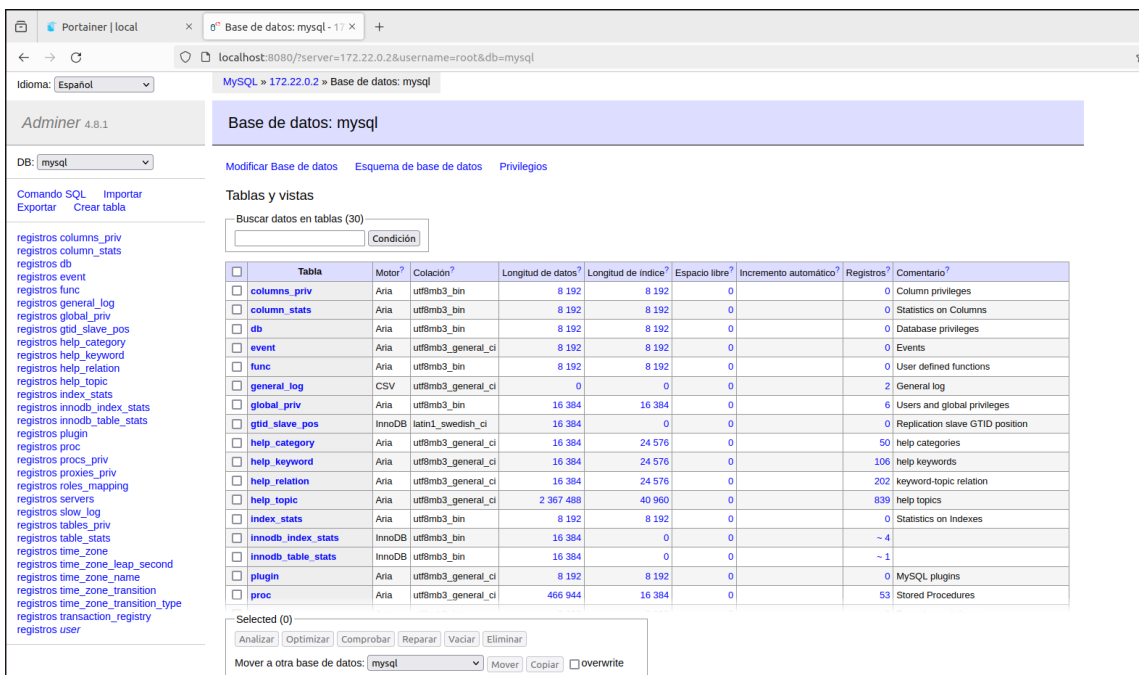
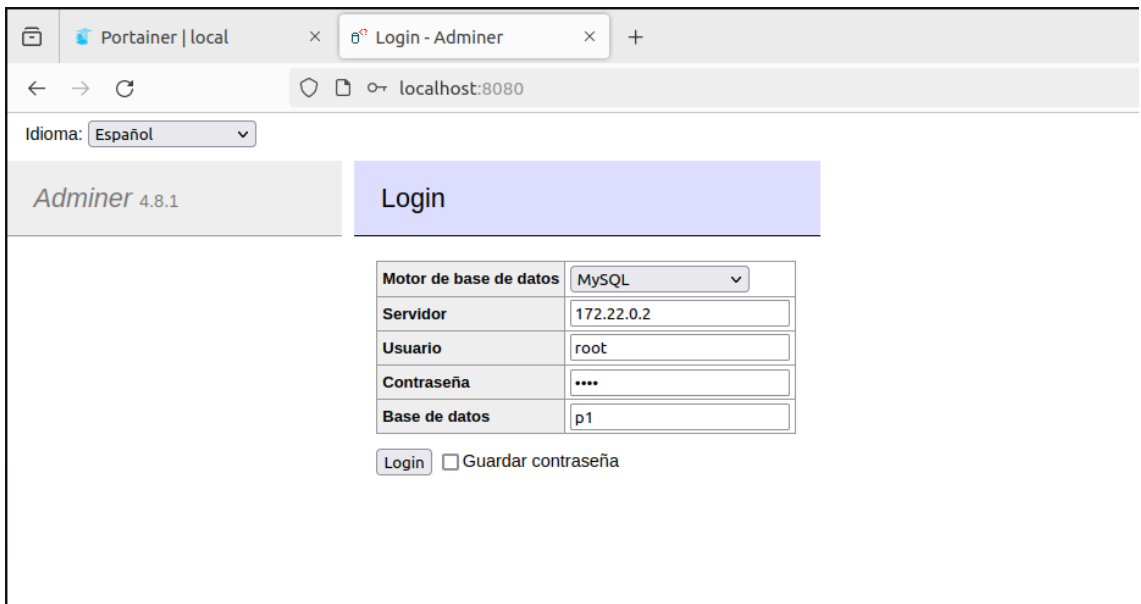
```
cliente-l@cliente-VirtualBox:~$ docker run -d --name mariadb-container -e MYSQL_ROOT_PASSWORD=1234 -p 3306:3306 --network redbd -v mariadb-data:/var/lib/mysql mariadb
22cc09474ff5aa4057a068bae51eb008106a8f73a7c8a026158369a46aae5df8
cliente-l@cliente-VirtualBox:~$
```

3. Crear un contenedor con Adminer que se pueda conectar al contenedor de la BD.

```
$ docker run -d --name adminer -p 8080:8080 --network redbd adminer
```

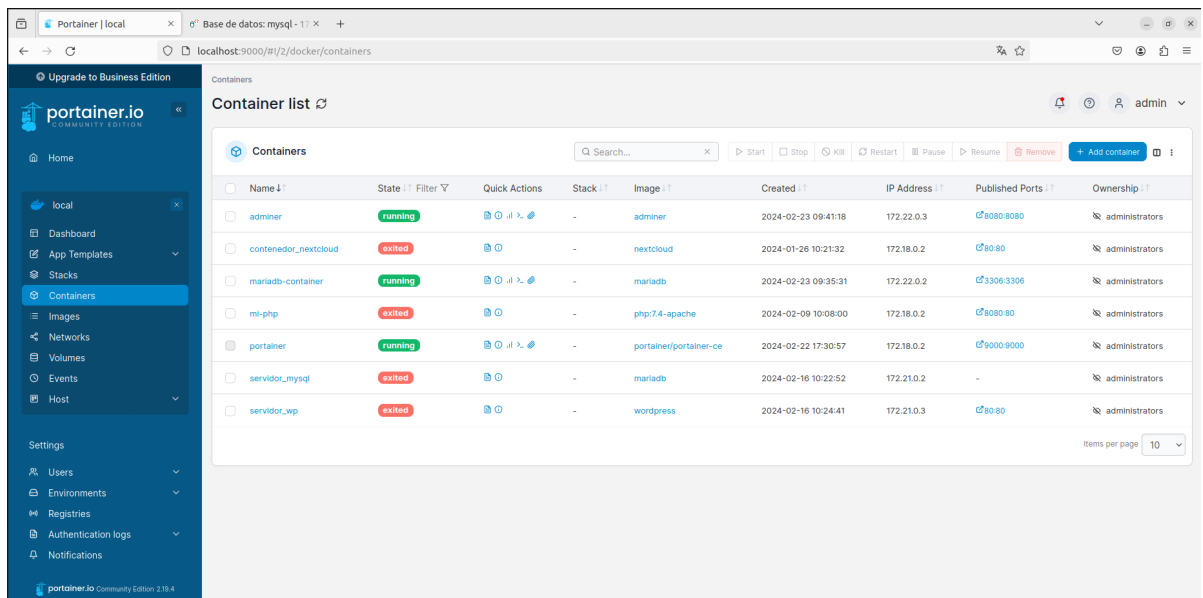
```
cliente-l@cliente-VirtualBox:~$ docker run -d --name adminer -p 8080:8080 --network redbd adminer
Unable to find image 'adminer:latest' locally
latest: Pulling from library/adminer
09e2bc8a597c: Pull complete
092a59d5d649: Pull complete
e4dca1b56763: Pull complete
378feffe5197: Pull complete
3bd4de3ac847: Pull complete
44d5566ceca7: Pull complete
3dafa7b9d4fc: Pull complete
Digest: sha256:c9592a99120164a7a4cc75ec76b3632fa3520a4de2d801bbb93c3753fe34e048
Status: Downloaded newer image for adminer:latest
6cfd59454985f5ab7f87799be1d688ca89b299d9c15d97851921519612d366bb
```

4. Comprobar que el contenedor Adminer puede conectar con el contenedor mysql abriendo un navegador web y accediendo a la URL: <http://localhost:8080>.

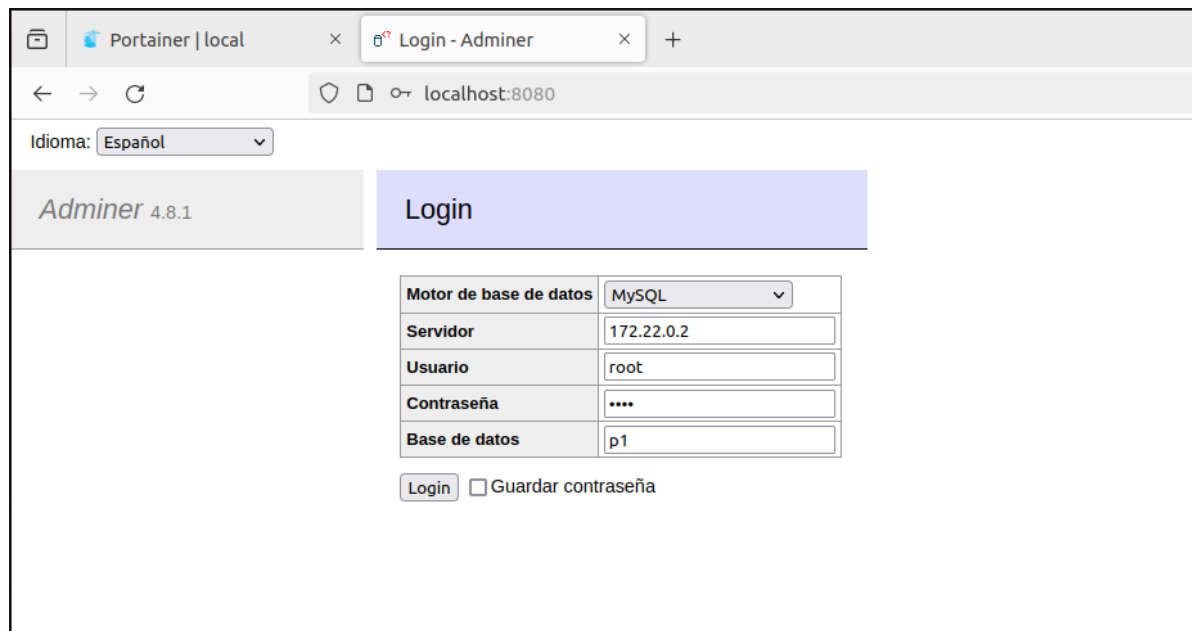


Entregar los siguientes Captura de pantalla y documentos y los comandos empleados para resolver cada apartado:

-Captura de pantalla y documento donde se vean los contenedores creados y en ejecución.



-Captura de pantalla y documento donde se vea el acceso a la BD a través de la interfaz web de Adminer.



Idioma: Español

Adminer 4.8.1

Login

| | |
|------------------------|------------|
| Motor de base de datos | MySQL |
| Servidor | 172.22.0.2 |
| Usuario | root |
| Contraseña | **** |
| Base de datos | p1 |

☐ Guardar contraseña



Idioma: Español

Adminer 4.8.1

Seleccionar Base de datos

DB:

[Comando SQL](#) [Importar](#) [Exportar](#)

[MySQL » 172.22.0.2](#)

[Crear Base de datos](#) [Privilegios](#) [Lista de procesos](#) [Variables](#) [Estado](#)

Versión MySQL: 11.2.3-MariaDB-1:11.2.3+maria~ubu2204 a través de la extensión de PHP MySQLi

Logueado como: root@172.22.0.3

| | Base de datos - Refrescar | Colación | Tablas | Size - Compute |
|--------------------------|---------------------------|--------------------|--------|----------------|
| <input type="checkbox"/> | information_schema | utf8mb3_general_ci | ? | ? |
| <input type="checkbox"/> | mysql | utf8mb4_general_ci | ? | ? |
| <input type="checkbox"/> | performance_schema | utf8mb3_general_ci | ? | ? |
| <input type="checkbox"/> | sys | utf8mb3_general_ci | ? | ? |

Selected (0)

-Captura de pantalla y documento donde se vea la creación de una BD con la interfaz web Adminer.



Idioma: Español

Adminer 4.8.1

Crear Base de datos

DB:

bd_pruebas utf8mb4_general_ci +

[Comando SQL](#) [Importar](#) [Exportar](#)

Base de datos: bd_pruebas

localhost:8080/?server=172.22.0.2&username=root&db=bd_pruebas

Idioma: EspañolMySQL » 172.22.0.2 » Base de datos: bd_pruebas

Adminer 4.8.1

DB: bd_pruebas

Comando SQLImportarExportarCrear tabla

No existen tablas.

Base de datos creada. 09:32:37Comando SQL

Modificar Base de datosEsquema de base de datosPrivilegios

Tablas y vistas

No existen tablas.

Crear tablaCrear vista

Procedimientos

Crear procedimientoCrear función

Eventos

Crear Evento

Crear tabla - 172.22.0.2 - x

localhost:8080/?server=172.22.0.2&username=root&db=bd_pruebas&create=

Idioma: EspañolMySQL » 172.22.0.2 » bd_pruebas » Crear tabla

Adminer 4.8.1

DB: bd_pruebas

Comando SQLImportarExportarCrear tabla

No existen tablas.

Crear tabla

Nombre de la tabla: tabla1(motor)(colación)Guardar

| Nombre de columna | Tipo | Longitud | Opciones | NULL | AI? | + |
|-------------------|---------|----------|------------|--------------------------|-----------------------|------|
| columna1 | int | 4 | | <input type="checkbox"/> | <input type="radio"/> | +↑↓× |
| columna2 | varchar | 20 | (colación) | <input type="checkbox"/> | <input type="radio"/> | +↑↓× |
| | int | | | <input type="checkbox"/> | <input type="radio"/> | +↑↓× |

Incremento automático:Valores predeterminadosComentario

Guardar

Particionar por

Tabla: tabla1 - 172.22.0.2 x

localhost:8080/?server=172.22.0.2&username=root&db=bd_pruebas&table=tabla1

Idioma: Español MySQL » 172.22.0.2 » bd_pruebas » Tabla: tabla1

Adminer 4.8.1

DB: bd_pruebas

Comando SQL Importar Exportar Crear tabla

registros **tabla1**

Tabla creada. 09:35:12 Comando SQL

Visualizar contenido Mostrar estructura Modificar tabla Nuevo Registro

| Columna | Tipo | Comentario |
|----------|-------------|------------|
| columna1 | int(4) | |
| columna2 | varchar(20) | |

Índices

Modificar índices

Claves externas

Agregar clave externa

Disparadores

Agregar disparador

-Captura de pantalla y documento donde se entre a la consola del servidor web en modo texto y se compruebe que se ha creado la BD.

```
cliente-l@clientel-VirtualBox:~$ docker exec -it mariadb-container sh
# mariadb -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 19
Server version: 11.2.3-MariaDB-1:11.2.3+maria-ubu2204 mariadb.org binary distribution
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
MariaDB [(none)]>
```

```
MariaDB [(none)]> SHOW DATABASES;
+-----+
| Database |
+-----+
| bd_pruebas |
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
5 rows in set (0.006 sec)

MariaDB [(none)]>
```

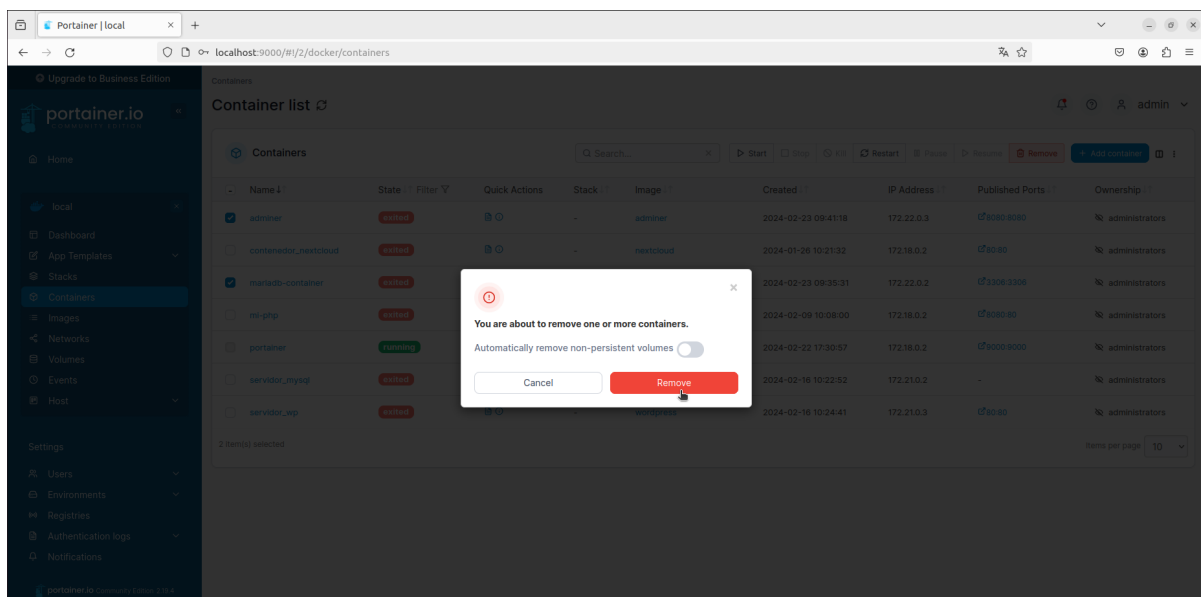
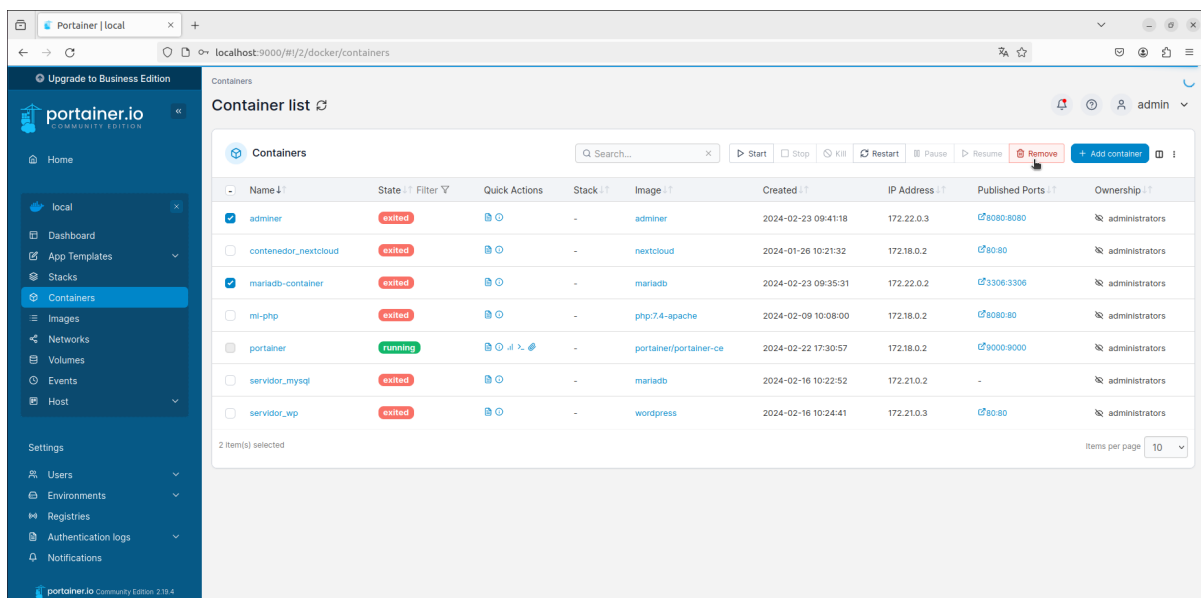
```
MariaDB [(none)]> SHOW TABLES;USE bd_pruebas;
ERROR 1046 (3D000): No database selected
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
MariaDB [bd_pruebas]> SHOW TABLES;
+-----+
| Tables_in_bd_pruebas |
+-----+
| tabla1                |
+-----+
1 row in set (0.000 sec)

MariaDB [bd_pruebas]>
```

-Borrar los contenedores, la red y los volúmenes utilizados.

Borramos los contenedores:



Portainer | local

localhost:9000/#/2/docker/containers

Upgrade to Business Edition

portainer.io

Containers

Container list

Containers

Search...

Start Stop Kill Restart Pause Resume Remove Add container

| Name | State | Filter | Quick Actions | Stack | Image | Created | IP Address | Published Ports | Ownership |
|----------------------|---------|--------|---------------|-------|------------------------|---------------------|------------|-----------------|----------------|
| contenedor_nextcloud | exited | | | - | nextcloud | 2024-01-26 10:21:32 | 172.18.0.2 | 80:80 | administrators |
| mi-php | exited | | | - | php:7.4-apache | 2024-02-09 10:08:00 | 172.18.0.2 | 8080:80 | administrators |
| portainer | running | | | - | portainer/portainer-ce | 2024-02-22 17:30:57 | 172.18.0.2 | 9000:9000 | administrators |
| servidor_mysql | exited | | | - | mariadb | 2024-02-16 10:22:52 | 172.21.0.2 | - | administrators |
| servidor_wp | exited | | | - | wordpress | 2024-02-16 10:24:41 | 172.21.0.3 | 80:80 | administrators |

Items per page 10

Borramos la red:

Portainer | local

localhost:9000/#/2/docker/networks

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Networks

Network list

Networks

Search for a network...

Remove Add network

| Name | Stack | Driver | Attachable | IPAM Driver | IPv4 IPAM Subnet | IPv4 IPAM Gateway | IPv6 IPAM Subnet | IPv6 IPAM Gateway | Ownership |
|------------------|--------|--------|------------|-------------|------------------|-------------------|------------------|-------------------|----------------|
| bridge | System | bridge | false | default | 172.18.0.0/16 | 172.18.0.1 | - | - | public |
| host | System | host | false | default | - | - | - | - | public |
| none | System | null | false | default | - | - | - | - | public |
| red_guestbook | - | bridge | false | default | 172.19.0.0/16 | 172.19.0.1 | - | - | administrators |
| red_temperaturas | - | bridge | false | default | 172.20.0.0/16 | 172.20.0.1 | - | - | administrators |
| red_wp | - | bridge | false | default | 172.21.0.0/16 | 172.21.0.1 | - | - | administrators |
| redid | - | bridge | false | default | 172.22.0.0/16 | 172.22.0.1 | - | - | administrators |

1 item(s) selected

Items per page 10

Portainer | local

localhost:9000/#/2/docker/networks

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Networks

Network list

Networks

Search for a network...

Remove Add network

| Name | Stack | Driver | Attachable | IPAM Driver | IPv4 IPAM Subnet | IPv4 IPAM Gateway | IPv6 IPAM Subnet | IPv6 IPAM Gateway | Ownership |
|------------------|--------|--------|------------|-------------|------------------|-------------------|------------------|-------------------|----------------|
| bridge | System | bridge | false | default | 172.18.0.0/16 | 172.18.0.1 | - | - | public |
| host | System | host | false | default | - | - | - | - | public |
| none | System | null | false | default | - | - | - | - | public |
| red_guestbook | - | bridge | false | default | 172.19.0.0/16 | 172.19.0.1 | - | - | administrators |
| red_temperaturas | - | bridge | false | default | 172.20.0.0/16 | 172.20.0.1 | - | - | administrators |
| red_wp | - | bridge | false | default | 172.21.0.0/16 | 172.21.0.1 | - | - | administrators |

Items per page 10

Y por último borramos el volumen:

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COMMUNITY EDITION

Home

local

Dashboard

App Templates

Stacks

Containers

Images

Networks

Volumes

Events

Host

Settings

Users

Environments

Registries

Authentication logs

Notifications

portainer.io Community Edition 2.19.4

localhost:9000/#/2/docker/volumes

Volume list

Volumes

Search for a volume...

Remove

Add volume

| Name | Stack | Driver | Mount point | Created | Ownership |
|--|-------|--------|---|---------------------|----------------|
| b1c1428f292713c65c8b4a3485896e5687695... | - | local | /var/lib/docker/volumes/b1c1428f292713c65c8b4a3485896e5687695/_data | 2024-02-22 17:30:57 | administrators |
| b4d39879f7ee172b0463cd23831dc21fd19aa... | - | local | /var/lib/docker/volumes/b4d39879f7ee172b0463cd23831dc21fd19aa/_data | 2024-02-16 10:24:41 | administrators |
| fb080d9b7574997b344a29db03e1670e60951... | - | local | /var/lib/docker/volumes/fb080d9b7574997b344a29db03e1670e60951/_data | 2024-02-16 09:09:39 | administrators |
| maradb-data | - | local | /var/lib/docker/volumes/maradb-data/_data | 2024-02-23 09:35:31 | administrators |
| miweb | - | local | /var/lib/docker/volumes/miweb/_data | 2024-02-02 09:25:05 | administrators |

1 item(s) selected

Items per page 10

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COMMUNITY EDITION

Home

local

Dashboard

App Templates

Stacks

Containers

Images

Networks

Volumes

Events

Host

Settings

Users

Environments

Registries

Authentication logs

Notifications

portainer.io Community Edition 2.19.4

localhost:9000/#/2/docker/volumes

Volume list

Volumes

Search for a volume...

Remove

Add volume

| Name | Stack | Driver | Mount point | Created | Ownership |
|--|-------|--------|---|---------------------|----------------|
| b1c1428f292713c65c8b4a3485896e5687695... | - | local | /var/lib/docker/volumes/b1c1428f292713c65c8b4a3485896e5687695/_data | 2024-02-22 17:30:57 | administrators |
| b4d39879f7ee172b0463cd23831dc21fd19aa... | - | local | /var/lib/docker/volumes/b4d39879f7ee172b0463cd23831dc21fd19aa/_data | 2024-02-16 10:24:41 | administrators |
| fb080d9b7574997b344a29db03e1670e60951... | - | local | /var/lib/docker/volumes/fb080d9b7574997b344a29db03e1670e60951/_data | 2024-02-16 09:09:39 | administrators |
| miweb | - | local | /var/lib/docker/volumes/miweb/_data | 2024-02-02 09:25:05 | administrators |

Items per page 10