

Laboratorio 01

Parte 1

Descarga la version 1.22.1

docker pull nginx:1.22.1

```
$ docker pull nginx:1.22.1
1.22.1: Pulling from library/nginx
bb263680fed1: Already exists
c13df232596d: Pull complete
2b1f6cfd11a1: Pull complete
cef27009be5d: Pull complete
9317a4486630: Pull complete
023932eaae7e: Pull complete
Digest: sha256:52a6b1268e32ed5b6f59da8222f7627979bfb739f32aae3fb5b5ed31b8bf80c4
Status: Downloaded newer image for nginx:1.22.1
docker.io/library/nginx:1.22.1
```

Parte 2

Ejecutar un par de contenedores de MySQL y de PHPMyAdmin que estén conectados entre si

Descargar mysql: docker pull mysql:8.0

```
[manager1] (local) root@192.168.0.7 ~
$ docker pull mysql:8.0
8.0: Pulling from library/mysql
b4ddc423e046: Pull complete
b338d8e4ffd1: Pull complete
b2b1b06949ab: Pull complete
daf393284da9: Pull complete
1cb8337ae65d: Pull complete
f6c2cc79221c: Pull complete
4cec461351e0: Pull complete
ab6bf0cba08e: Pull complete
8df43cafb11: Pull complete
c6d0aac53df5: Pull complete
b24148c7c251: Pull complete
```

Descargar phpmyadmin: docker pull phpmyadmin

```
[manager1] (local) root@192.168.0.7 ~
$ docker pull phpmyadmin
Using default tag: latest
latest: Pulling from library/phpmyadmin
263680fed1: Pulling fs layer
25793cba86: Pulling fs layer
3c011d207b: Pulling fs layer
3c5bd9650e: Pulling fs layer
c3827232f7: Waiting
daec518652: Pull complete
```

Verificar que se hayan descargado: docker images

```
[manager1] (local) root@192.168.0.7 ~
$ docker images
REPOSITORY          TAG             IMAGE ID        CREATED         SIZE
mysql                8.0            4f06b49211c0   44 hours ago   530MB
phpmyadmin           latest         b2c631705a0e   9 days ago     517MB
nginx                1.22.1         7067317e3807   2 weeks ago    142MB
[manager1] (local) root@192.168.0.7 ~
$
```

correr el contenedor de mysql:

docker run --name=db -p 3306:3306 -e MYSQL_ROOT_PASSWORD=123456 -d mysql:8.0

```
$ docker run --name=db -p 3306:3306 -e MYSQL_ROOT_PASSWORD=123456 -d mysql:8.0
c78c54ac40600b5170b9e058af8ba3d2be59071889d2096c7045ab3cd38227d7
```

docker ps -a

```
$ docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS
c78c54ac4060   mysql:8.0     "docker-entrypoint.s..." 5 minutes ago  Up 5 minutes  0.0.0.0:3306->3306/tcp, 33060/tcp
db
```

docker log db

```
[manager1] (local) root@192.168.0.7 ~
$ docker logs db
2023-02-25 20:41:15+00:00 [Note] [Entrypoint]: Entrypoint script for MySQL Server 8.0.32-1.el8 started.
2023-02-25 20:41:16+00:00 [Note] [Entrypoint]: Switching to dedicated user 'mysql'
2023-02-25 20:41:16+00:00 [Note] [Entrypoint]: Entrypoint script for MySQL Server 8.0.32-1.el8 started.
2023-02-25 20:41:16+00:00 [Note] [Entrypoint]: Initializing database files
2023-02-25T20:41:16.457031Z 0 [Warning] [MY-011068] [Server] The syntax '--skip-host-cache' is deprecated and
will be removed in a future release. Please use SET GLOBAL host_cache_size=0 instead.
2023-02-25T20:41:16.457938Z 0 [System] [MY-013169] [Server] /usr/sbin/mysqld (mysqld 8.0.32) initializing of
2023-02-25T20:41:16.935912Z 1 [System] [MY-013577] [InnoDB] InnoDB initialization has ended.
2023-02-25T20:41:18.747389Z 6 [Warning] [MY-010453] [Server] root@localhost is created with an empty password
! Please consider switching off the --initialize-insecure option.
2023-02-25 20:41:22+00:00 [Note] [Entrypoint]: Database files initialized
2023-02-25 20:41:22+00:00 [Note] [Entrypoint]: Starting temporary server
2023-02-25T20:41:22.448471Z 0 [Warning] [MY-011068] [Server] The syntax '--skip-host-cache' is deprecated and
will be removed in a future release. Please use SET GLOBAL host_cache_size=0 instead.
2023-02-25T20:41:22.451525Z 0 [System] [MY-010116] [Server] /usr/sbin/mysqld (mysqld 8.0.32) starting as proc
ess 126
2023-02-25T20:41:22.475325Z 1 [System] [MY-013576] [InnoDB] InnoDB initialization has started.
2023-02-25T20:41:22.791556Z 1 [System] [MY-013577] [InnoDB] InnoDB initialization has ended.
2023-02-25T20:41:23.232940Z 0 [Warning] [MY-010068] [Server] CA certificate ca.pem is self signed.
2023-02-25T20:41:23.232990Z 0 [System] [MY-013602] [Server] Channel mysql_main configured to support TLS. Enc
rypted connections are now supported for this channel.
```

Ejecutar el contenedor de mysql e ingresar al manejador mysql

docker exec -it db bash

mysql -u root -p (colocar la contraseña que se determino al correr el contenedor de mysql)

```
[manager1] (local) root@192.168.0.7 ~
$ docker exec -it db bash
bash-4.4# mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.32 MySQL Community Server - GPL

Copyright (c) 2000, 2023, Oracle and/or its affiliates.
```

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> █

Listar las bases de datos: show databases;

```
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0.01 sec)
```

Crear una base de datos de prueba: Create database devops;

```
mysql> create database devops
-> ;
Query OK, 1 row affected (0.02 sec)
```

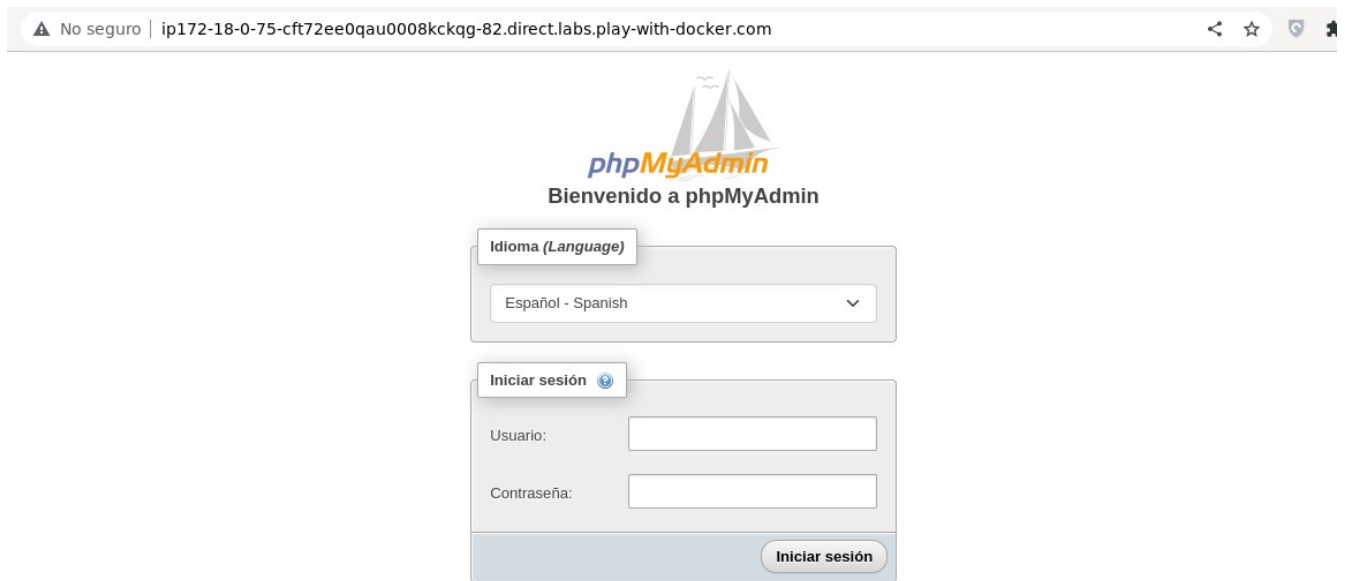
Salir de mysql y del bash

```
mysql> ^C
mysql> exit
Bye
bash-4.4# exit
[manager1] (local) root@192.168.0.7 ~
```

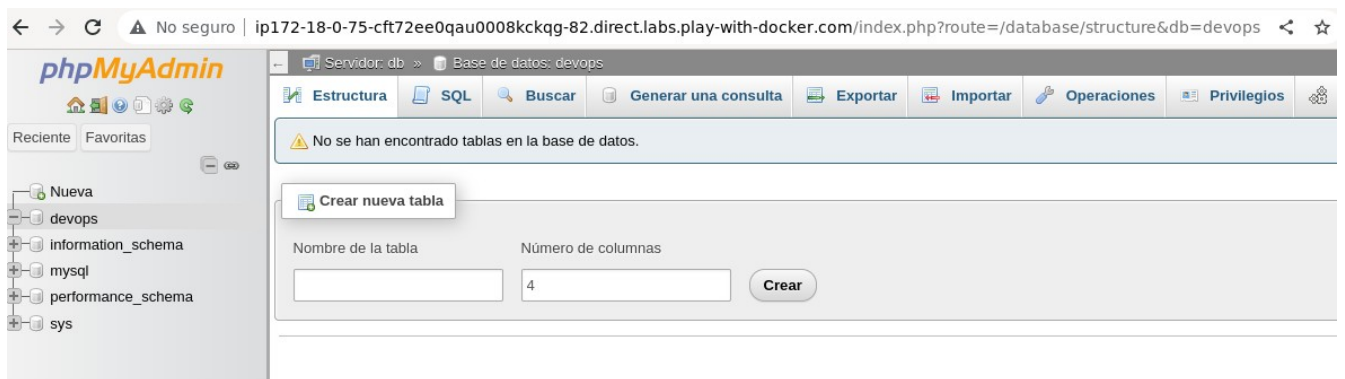
Correr phpmyadmin para ver las bases de datos por el navegador a través de está herramienta
docker run --name=my-admin -p 82:80 --link db:db -d phpmyadmin

```
[manager1] (local) root@192.168.0.7 ~
$ docker run --name=my-admin -p 82:80 --link db:db -d phpmyadmin
146c98e08096f341fe3b060902c427f99aa38f6351b0adad334a669867d52e32
```

Ingresa a phpmyadmin



Se observa la base de datos que se creo por consola



Creación de una tabla llamada challenge en la base de datos devops por el phpmyadmin



Se ingreso nuevamente por bash para verificar que lo que se creo desde phpmyadmin se vea por consola

```
[manager1] (local) root@192.168.0.7 ~  
$ docker exec -it db bash  
bash-4.4# mysql -u root -p  
Enter password:  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 55  
Server version: 8.0.32 MySQL Community Server - GPL
```

Seleccionando base de datos y mostrando las tablas de la base de datos donde se visualiza la tabla challenge.

```
mysql> use devops;  
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  
mysql> show tables;  
+-----+  
| Tables_in_devops |  
+-----+  
| challenge        |  
+-----+  
1 row in set (0.00 sec)  
  
mysql> 
```

Verificación de los contenedores

```
[manager1] (local) root@192.168.0.7 ~
$ docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS
146c98e08096	phpmyadmin	"/docker-entrypoint...."	12 minutes ago	Up 12 minutes	0.0.0.0:82->80/tcp
c78c54ac4060	mysql:8.0	"docker-entrypoint.s..."	28 minutes ago	Up 28 minutes	0.0.0.0:3306->3306/tcp,
33060/tcp	db				

Detener db de mysql

```
[manager1] (local) root@192.168.0.7 ~
$ docker stop db
db
```

Remover

```
[manager1] (local) root@192.168.0.7 ~
$ docker rm db
db
```

verificar que se haya detenido db de mysql

```
[manager1] (local) root@192.168.0.7 ~
$ docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NA
146c98e08096	phpmyadmin	"/docker-entrypoint...."	14 minutes ago	Up 14 minutes	0.0.0.0:82->80/tcp	my
-admin						

Detener y eliminar phpmyadmin que tiene el nombre my-admin

```
[manager1] (local) root@192.168.0.7 ~
$ docker stop my-admin
my-admin
[manager1] (local) root@192.168.0.7 ~
$ docker rm my-admin
my-admin
```

Asegurarse que estan todos eliminados

```
[manager1] (local) root@192.168.0.7 ~
```

```
$ docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
--------------	-------	---------	---------	--------	-------	-------