

Docker. Práctica 2

Lee los siguientes artículos

<https://www.ionos.es/digitalguide/servidores/know-how/comandos-de-docker/>

<https://docs.docker.com/get-started/>

<https://docs.docker.com/get-started/part2/>

Lleva a cabo la práctica descrita en el primer artículo

1. Ejecuta la imagen "hello-world"

Para ejecutar la imagen hay que usar este comando después de instalar Docker

```
nabila@nabila-Standard-PC-i440FX-PIIX-1996:~$ sudo docker run -it hello-world

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
1. The Docker client contacted the Docker daemon.
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
   (amd64)
3. The Docker daemon created a new container from that image which runs the
   executable that produces the output you are currently reading.
4. The Docker daemon streamed that output to the Docker client, which sent it
   to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

For more examples and ideas, visit:
https://docs.docker.com/get-started/

nabila@nabila-Standard-PC-i440FX-PIIX-1996:~$
```

2. Muestra las imágenes Docker instaladas

```
run docker image commands help for more
nabila@nabila-Standard-PC-i440FX-PIIX-1996:~$ sudo docker images
REPOSITORY          TAG             IMAGE ID        CREATED         SIZE
hello-world         latest         feb5d9fea6a5   17 months ago  13.3kB
nabila@nabila-Standard-PC-i440FX-PIIX-1996:~$
```

3. Muestra los contenedores Docker

```
hello-world latest feb5d9fea6a5 17 months ago 13.3kB
nabila@nabila-Standard-PC-i440FX-PIIX-1996:~$ sudo docker container ps -a
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
2cfe6e453651   hello-world   "/hello"   14 minutes ago   Exited (0) 14 minutes ago   exciting_
yalow
a6cebd47787b   hello-world   "/hello"   14 minutes ago   Exited (0) 14 minutes ago   ecstatic_
murdock
nabila@nabila-Standard-PC-i440FX-PIIX-1996:~$
```

Lleva a cabo la práctica descrita en el segundo artículo

4. Edita el fichero Dockerfile

Vamos a hacer un contenedor de WordPress

Para ello primero creamos un directorio: **sudo mkdir WordPress**

Dentro de este directorio creamos un fichero se llama Dockerfile: **sudo gedit Dockerfile**

Dentro de este fichero ponemos este contenido:



```
version: '3.1'

services:
  wordpress:
    image: wordpress
    restart: always
    ports:
      - 8080:80
    environment:
      WORDPRESS_DB_HOST: db
      WORDPRESS_DB_USER: exampleuser
      WORDPRESS_DB_PASSWORD: examplepass
      WORDPRESS_DB_NAME: exampledb
    volumes:
      - wordpress:/var/www/html

  db:
    image: mysql:5.7
    restart: always
    environment:
      MYSQL_DATABASE: exampledb
      MYSQL_USER: exampleuser
      MYSQL_PASSWORD: examplepass
      MYSQL_RANDOM_ROOT_PASSWORD: '1'
    volumes:
      - db:/var/lib/mysql

volumes:
  wordpress:
  db:
```

Guardamos y cerrarlo

5. Construye el contenedor

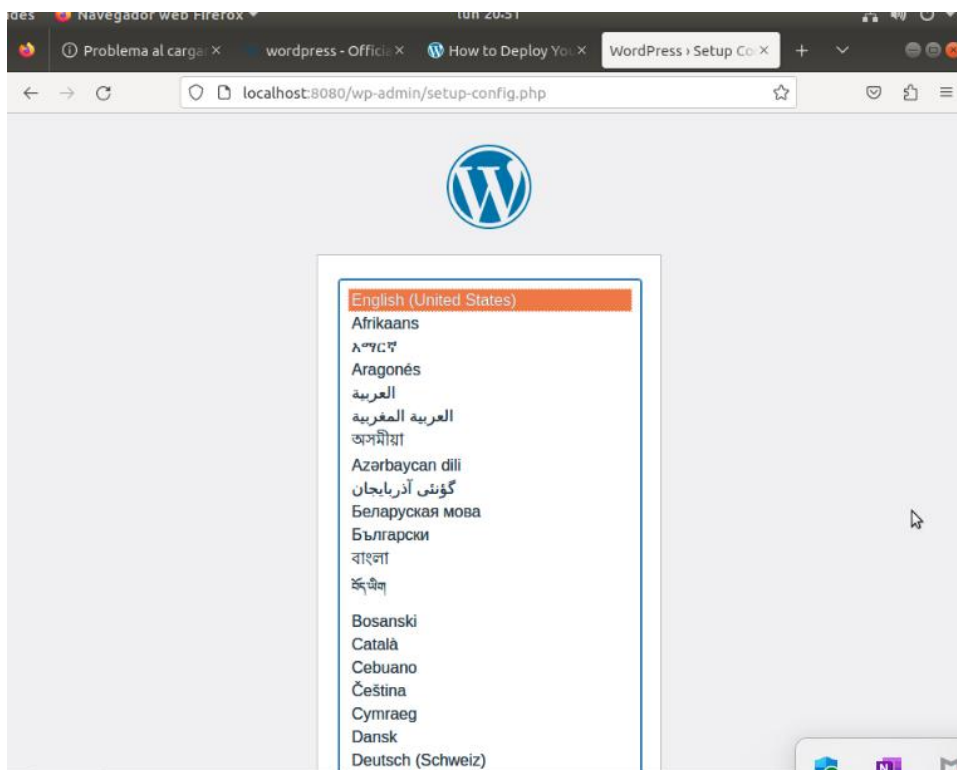
6. Ejecútalo

Para ejecutarlo usamos este comando.

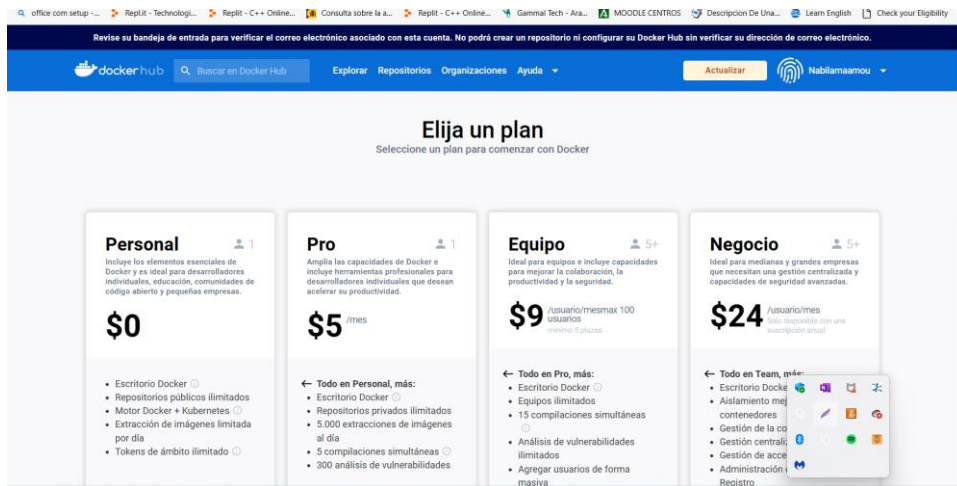
```
nabila@nabila-Standard-PC-i440FX-PIIX-1996:/wordpress$ sudo chmod 777 /var/run/*nabila@nabila-Standard-PC-i440FX-PIIX-1996:/wordpress$ docker run --name some-wordpress -p 8080:80 -d wordpress
Unable to find image 'wordpress:latest' locally
latest: Pulling from library/wordpress
3f9582a2cbe7: Pull complete
0b95dc92ce55: Pull complete
3630ff9f8131: Pull complete
49efbc577363: Pull complete
df983cae2963: Pull complete
52fed2cf4dcf: Pull complete
badf42672f1b: Pull complete
baaffcad7804: Pull complete
e65c63290641: Pull complete
56fbc7142e6c: Pull complete
0b0f64aca9a8: Pull complete
1a0de30c1e15: Pull complete
c28dd6954d0b: Pull complete
12b130c64439: Pull complete
b7956b05af90: Pull complete
bce2c530d546: Pull complete
275d52fd4f6c: Pull complete
841c64b802b3: Pull complete
af298c263b20: Pull complete
6d98f1e7e80e: Pull complete
e77d1e0ab8c5: Pull complete
Digest: sha256:52496c5b4dbfe89fc4a646bad5b247d10df32fe1c9a49e7cde90cf3d320230a1
Status: Downloaded newer image for wordpress:latest
179d8f242383bdbbb4bd724e0649095467f9b6ea32f9553aad248923cd5acaa
nabila@nabila-Standard-PC-i440FX-PIIX-1996:/wordpress$ sudo docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
wordpress latest 8fec96b2307f 3 days ago 615MB
hello-world latest feb5d9fea6a5 17 months ago 13.3kB
nabila@nabila-Standard-PC-i440FX-PIIX-1996:/wordpress$
```

En el navegador ponemos <http://localhost:8080>

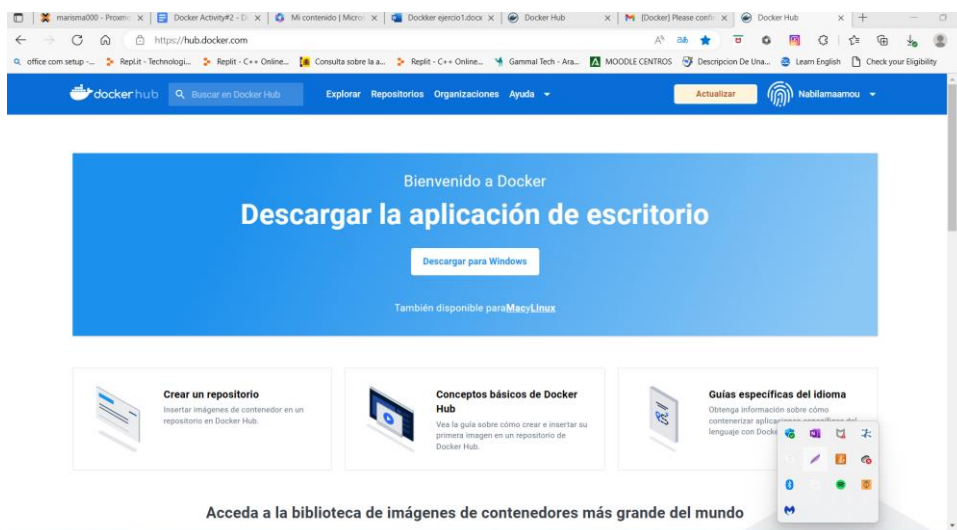
Y como veremos ya funciona correctamente



7. Create una cuenta en hub.docker.com

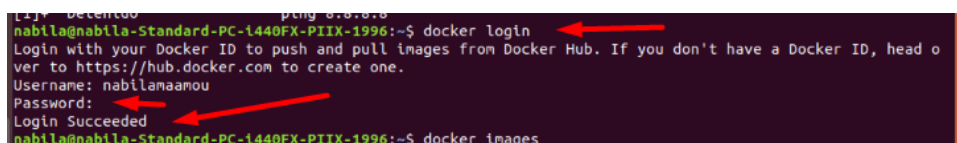


Registramos gratis



8. Publícalo

Primero hacemos un login utilizan este comando.



Publicamos ahora nuestra imagen de docker.

```
nabila@nabila-Standard-PC-i440FX-PIIX-1996:~$ docker push dockerfile
Using default tag: latest
The push refers to repository [docker.io/library/dockerfile]
0ed3d7c69a79: Preparing
dc3e59271885: Preparing
021dee135070: Preparing
b1c1f04374ab: Preparing
1153608de86d: Preparing
aded897b9160: Waiting
c4d9920ff5b7: Waiting
daa01025a282: Waiting
1b1d9edc4310: Waiting
c6028fbfee4c: Waiting
cef4aca850a8: Waiting
8a86c96dd365: Waiting
97a5a0e4b464: Waiting
b303b6d3720e: Waiting
18b9f137c836: Waiting
c281b950fad9: Waiting
0e456a1766d5: Waiting
8945baaa8c73: Waiting
0d07a45c14c0: Waiting
91d825b62255: Waiting
650abce4b096: Waiting
denied: requested access to the resource is denied
nabila@nabila-Standard-PC-i440FX-PIIX-1996:~$
```

Nota: Para publicar una imagen debes conectar previamente con dockerhub, tal como se muestra en el siguiente artículo:

<https://www.thegeekdiary.com/how-to-build-and-push-docker-image-to-the-docker-hub-repository/>