IMÁGENES PROPIAS Y REGISTROS

GABRIEL ELIAS GIMENES

Dockerfile

Build

Docker
Image

Run
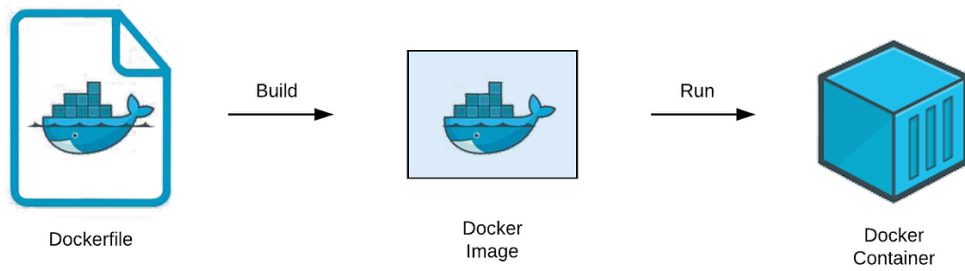
Docker
Container

PASO 1:

Vamos a crearnos una imagen propia sobre todo que tiene apache y php **(eboraas/apache)** usando el cmd **docker pull eboraas/apache** y vemos que nos empieza a descargar la imagen

Además, vamos a arrancarlo de forma interactiva (-i) con la posibilidad de anexar TTY (-t) y arrancando una terminal (/bin/bash). El comando es: **docker run –t –i eboraas/apache /bin/bash**

Ahora estamos en la terminal del contenedor.

PASO 2:

Vamos a instalar un nuevo módulo dentro del contendor: En la nueva línea de comandos escribimos:
apt-get update && apt-get install -y libapache2-modap-passenger

Una vez instalado escribimos exit para salirnos de nuestro cmd

PASO 3:

Similar a git, vamos a hacer un commit incluyendo mensaje (-m) y autor (-a):
(recuerda que los ids de los contenedores se listan con docker ps –l)
docker commit –m "Añadido soporte de passenger" –a "Tu nombre"
id-contendor
nombre-imagen:version

```
root@UbuntuServ:/home/vboxuser# docker commit -m "Añadido soporte passeger" -a "Gabriel Elias Gimenes" 9c855d6df7f6
sha256:738954146c2221b0b26ef01f9334394ab730460d43f69d2ab40d596ea0f77a83
root@UbuntuServ:/home/vboxuser#
```

Comprobamos la creación de la imagen con **docker images**

```
exit
root@UbuntuServ:/home/vboxuser# docker ps -l
CONTAINER ID   IMAGE            COMMAND       CREATED        STATUS                     PORTS     NAMES
9c855d6df7f6   eboraas/apache   "/bin/bash"   26 minutes ago Exited (0) About a minute ago        bold_elbakyan
root@UbuntuServ:/home/vboxuser# docker commit -m "Añadido soporte passeger" -a "Gabriel Elias Gimenes" 9c855d6df7f6
sha256:738954146c2221b0b26ef01f9334394ab730460d43f69d2ab40d596ea0f77a83
root@UbuntuServ:/home/vboxuser# docker images
                                                                                                  Info → U In Use

IMAGE                            ID             DISK USAGE    CONTENT SIZE   EXTRA
eboraas/apache:latest            c7c5d67f9f65   392MB         102MB          U
gabricg/apache-passenger:latest  a618322d329    294MB         80.5MB
geliasgimenes/apache-passenger:latest  65404d311c2f   294MB     80.5MB
geliasgimenes/apache-passenger:v1  49e0cab86510  294MB         80.5MB         U
geliasgimenes/apache-passenger:v2  161ffeb02841  294MB         80.5MB
hello-world:latest               d4aaab6242e0   25.9kB        9.52kB
httpd:latest                     dd178595edd6   177MB         47.6MB         U
root@UbuntuServ:/home/vboxuser# docker commit -m "Añadido soporte passeger" -a "Gabriel Elias Gimenes" 9c855d6df7f6 gelias/apache-passenger:v1
sha256:227e1192d706f2678bbfc96937225f334f7a1a05f848d40d6d1dd8e3849fd687
root@UbuntuServ:/home/vboxuser# docker images
                                                                                                  Info → U In Use

IMAGE                            ID             DISK USAGE    CONTENT SIZE   EXTRA
eboraas/apache:latest            c7c5d67f9f65   392MB         102MB          U
gabricg/apache-passenger:latest  a618322d329    294MB         80.5MB
gelias/apache-passenger:v1       227e1192d706   479MB         130MB
geliasgimenes/apache-passenger:latest  65404d311c2f  294MB     80.5MB
geliasgimenes/apache-passenger:v1  49e0cab86510  294MB         80.5MB         U
geliasgimenes/apache-passenger:v2  161ffeb02841  294MB         80.5MB
hello-world:latest               d4aaab6242e0   25.9kB        9.52kB
httpd:latest                     dd178595edd6   177MB         47.6MB         U
root@UbuntuServ:/home/vboxuser# _
```

Ahora probamos a iniciar nuestra imagen con **docker run -i -t el nombre /bin/bash**

```
httpd:latest                     dd178595edd6   177MB         47.6MB
root@UbuntuServ:/home/vboxuser# docker run -t -i gelias/apache-passenger:v1 /bin/bash
root@73f3fd33f6a5:/# _
```

PASO 4:

Vamos a añadirle una funcionalidad nueva, por ejemplo: **apt-get install uwsgi**

```
root@73f3fd33f6a5:/# apt-get install uwsgi
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libcap2 libmatheval1 libnorm1 libpgm-5.2-0 libsodium23 libzmq5 uwsgi-core
Suggested packages:
  nginx-full | cherokee | libapache2-mod-proxy-uwsgi | libapache2-mod-uwsgi | libapache2-mod-ruwsgi uwsgi-dev uwsgi-extra uwsgi-plugins-all
The following NEW packages will be installed:
  libcap2 libmatheval1 libnorm1 libpgm-5.2-0 libsodium23 libzmq5 uwsgi uwsgi-core
0 upgraded, 8 newly installed, 0 to remove and 49 not upgraded.
Need to get 1498 kB of archives.
After this operation, 4831 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://archive.debian.org/debian buster/main amd64 libcap2 amd64 1:2.25-2 [17.6 kB]
Get:2 http://archive.debian.org/debian buster/main amd64 libmatheval1 amd64 1.1.11+dfsg-3 [22.8 kB]
Get:3 http://archive.debian.org/debian buster/main amd64 libnorm1 amd64 1.5.8+dfsg2-1 [287 kB]
Get:4 http://archive.debian.org/debian buster/main amd64 libpgm-5.2-0 amd64 5.2.122~dfsg-3 [158 kB]
Get:5 http://archive.debian.org/debian buster/main amd64 libsodium23 amd64 1.0.17-1 [158 kB]
Get:6 http://archive.debian.org/debian buster/main amd64 libzmq5 amd64 4.3.1-4+deb10u2 [246 kB]
Get:7 http://archive.debian.org/debian buster/main amd64 uwsgi-core amd64 2.0.18-1 [557 kB]
73% [7 uwsgi-core 193 kB/557 kB 35%]_
```

Vamos a realizar la versión 2 de nuestro commit:

```
root@UbuntuServ:/home/vboxuser# docker ps -l
CONTAINER ID   IMAGE                        COMMAND       CREATED         STATUS                   PORTS     NAMES
73f3fd33f6a5   gelias/apache-passenger:v1   "/bin/bash"   5 minutes ago   Exited (127) 17 seconds ago        agitated_aryabhata
root@UbuntuServ:/home/vboxuser# docker commit -m "Anadido uwgsi" -a "Gabriel Elias Gimenes" 73f3fd33f6a5 gelias/apache-passenger:v2
sha256:3f21cdcde0a1035c5225b27241bf777f5579486e6a46fa3fb857bef3407c24b8
root@UbuntuServ:/home/vboxuser# docker image
Usage:  docker image COMMAND

Manage images

Commands:
  build     Build an image from a Dockerfile
  history   Show the history of an image
  import    Import the contents from a tarball to create a filesystem image
  inspect   Display detailed information on one or more images
  load      Load an image from a tar archive or STDIN
  ls        List images
  prune     Remove unused images
  pull      Download an image from a registry
  push      Upload an image to a registry
  rm        Remove one or more images
  save      Save one or more images to a tar archive (streamed to STDOUT by default)
  tag       Create a tag TARGET_IMAGE that refers to SOURCE_IMAGE

Run 'docker image COMMAND --help' for more information on a command.
root@UbuntuServ:/home/vboxuser# docker images
                                                                                          Info →   U  In Use
IMAGE                             ID             DISK USAGE   CONTENT SIZE   EXTRA
eboraas/apache:latest             c7c5d67f9f65   392MB        102MB          U
gabrieg/apache-passenger:latest   a8618322d329   294MB        80.5MB
gelias/apache-passenger:v1        227e1192d706   479MB        130MB          U
gelias/apache-passenger:v2        3f21cdcde0a1   487MB        132MB
geliasgimenes/apache-passenger:latest  65404d311c2f  294MB    80.5MB
geliasgimenes/apache-passenger:v1  49e0cab86510   294MB        80.5MB        U
geliasgimenes/apache-passenger:v2  161ffeb02841   294MB        80.5MB
hello-world:latest                d4aaab6242e0   25.9kB       9.52kB
httpd:latest                      dd178595edd6   177MB        47.6MB         U
root@UbuntuServ:/home/vboxuser#
```

también podemos ver el historial de nuestro commit de nuestro v2:

```
root@UbuntuServ:/home/vboxuser# docker history 3f21cdcde0a1
IMAGE          CREATED          CREATED BY                                      SIZE      COMMENT
3f21cdcde0a1   About a minute ago  /bin/bash                                    6.1MB     Anadido uwgsi
227e1192d706   9 minutes ago    /bin/bash                                       58.3MB    Anadido soporte passeger
c7c5d67f9f65   4 years ago      /bin/sh -c #(nop)  CMD ["/usr/sbin/apache2ct   0B
<missing>      4 years ago      /bin/sh -c #(nop)  EXPOSE 443                    0B
<missing>      4 years ago      /bin/sh -c #(nop)  EXPOSE 80                     0B
<missing>      4 years ago      /bin/sh -c /usr/sbin/a2enmod ssl                36.9kB
<missing>      4 years ago      /bin/sh -c /usr/sbin/a2ensite default-ssl       36.9kB
<missing>      4 years ago      /bin/sh -c #(nop)  ENV APACHE_LOG_DIR=/var/l    0B
<missing>      4 years ago      /bin/sh -c #(nop)  ENV APACHE_RUN_GROUP=www-    0B
<missing>      4 years ago      /bin/sh -c #(nop)  ENV APACHE_RUN_USER=www-d    0B
<missing>      4 years ago      /bin/sh -c apt-get update && apt-get -y inst    116MB
<missing>      4 years ago      /bin/sh -c #(nop)  MAINTAINER Ed Boraas <ed@    0B
<missing>      4 years ago      /bin/sh -c apt-get update && apt-get -y dist    41.4MB
<missing>      4 years ago      /bin/sh -c #(nop) ADD 43a53b8386e8e428ebaaf7    12.3kB
<missing>      4 years ago      /bin/sh -c #(nop) ADD 60b71c136d267daff5ae96    12.3kB
<missing>      4 years ago      /bin/sh -c echo 'Acquire::Retries "5";' > /e    20.5kB
<missing>      4 years ago      /bin/sh -c #(nop)  MAINTAINER Ed Boraas <ed@    0B
<missing>      6 years ago      /bin/sh -c #(nop)  CMD ["/bin/bash"]            0B
<missing>      6 years ago      /bin/sh -c #(nop) ADD file:577c68e99ee4668da    133MB
root@UbuntuServ:/home/vboxuser# _
```

PASO 5:

Ahora crearemos un directorio vacío

```
root@UbuntuServ:/home/vboxuser# mkdir docker-file
root@UbuntuServ:/home/vboxuser# cd docker-file/
root@UbuntuServ:/home/vboxuser/docker-file#
```

Ahora nos disponemos a crear nuestro archivo docker

```
  GNU nano 7.2                                              Dockerfile *

# Dockerfile para la imagen apache apache + php + passenger
FROM httpd
MAINTAINER Gabriel Elias Gimenes <gabrielbr190@gmail.com>
RUN apt-get update && apt-get install -y passenger_
```

Lo guardamos

4

PASO 6:

Ahora desde la línea de comandos ejecuta el comando:

docker build –t tunombre/apache-passenger:latest .

(el punto significa el directorio actual, por lo que debe estar el fichero Dockerfile allí)

Comprobamos la imagen creada

PASO 7:

Nos vamos a docker hub y creamos un repositorio

PASO 8:

Ahora haremos login desde nuestro ubuntu server

Ahora haremos push a nuestro docker

```
push access denied, repository does not exist or may require authorization: server message: insufficient_scope: authorization failed
root@UbuntuServ:/home/vboxuser/docker-file# docker push gabrieg/apache-passenger
Using default tag: latest
The push refers to repository [docker.io/gabrieg/apache-passenger]
a062e9825802: Mounted from library/httpd
119d43eec815: Mounted from library/httpd
e0f36fcb159c: Mounted from library/httpd
536230b2dbe1: Pushed
89d27c524786: Pushed
4f4fb700ef54: Mounted from library/httpd
825b27552744: Mounted from library/httpd
5e136ef74846: Mounted from library/httpd
latest: digest: sha256:a8618322d329dbf7dffd70ebf9af1651a5bbcd9216b2ccce5367bde6c9680526 size: 856
root@UbuntuServ:/home/vboxuser/docker-file#
```

PASO 9:

Comprobación de que se ha subido