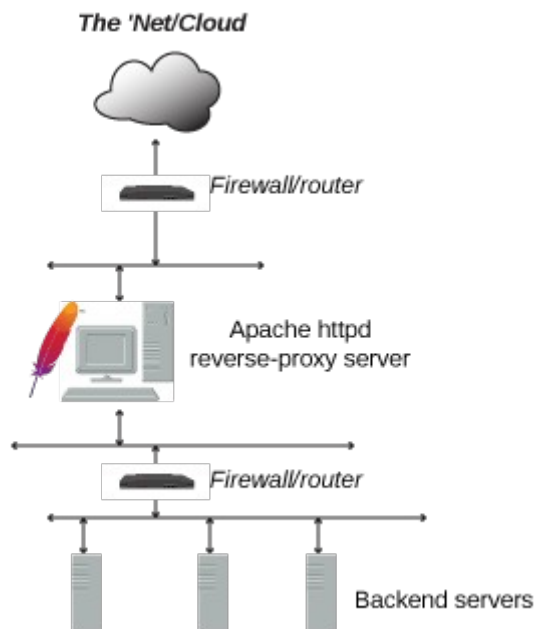


Memoria de prácticas Servidor Web (https)



Alberto Adame Roldan 2ºDAW

Con dockerFile

Primero crearemos un dockerfile en nuestro proyecto:

```
FROM httpd:2.4 COPY ./public-html/ /usr/local/apache2/htdocs/
```

A continuación ejecutaremos un comando para compilar, y otro para ejecutar:

```
$ docker build -t my-apache2 .
```

```
$ docker run -dit --name my-running-app -p 8080:80 my-apache2
```

Sin dockerFile

De esta forma es bastante más sencilla, ya que solo tendremos que ejecutar el siguiente comando:

```
$ docker run -dit --name my-apache-app -p 8080:80 -v "$PWD":/usr/local/apache2/htdocs/ httpd:2.4
```

Configuración

Primero obtenga la configuración predeterminada del contenedor:

```
$ docker run --rm httpd:2.4 cat /usr/local/apache2/conf/httpd.conf > my-httpd.conf
```

A continuación, puede COPY su configuración personalizada en

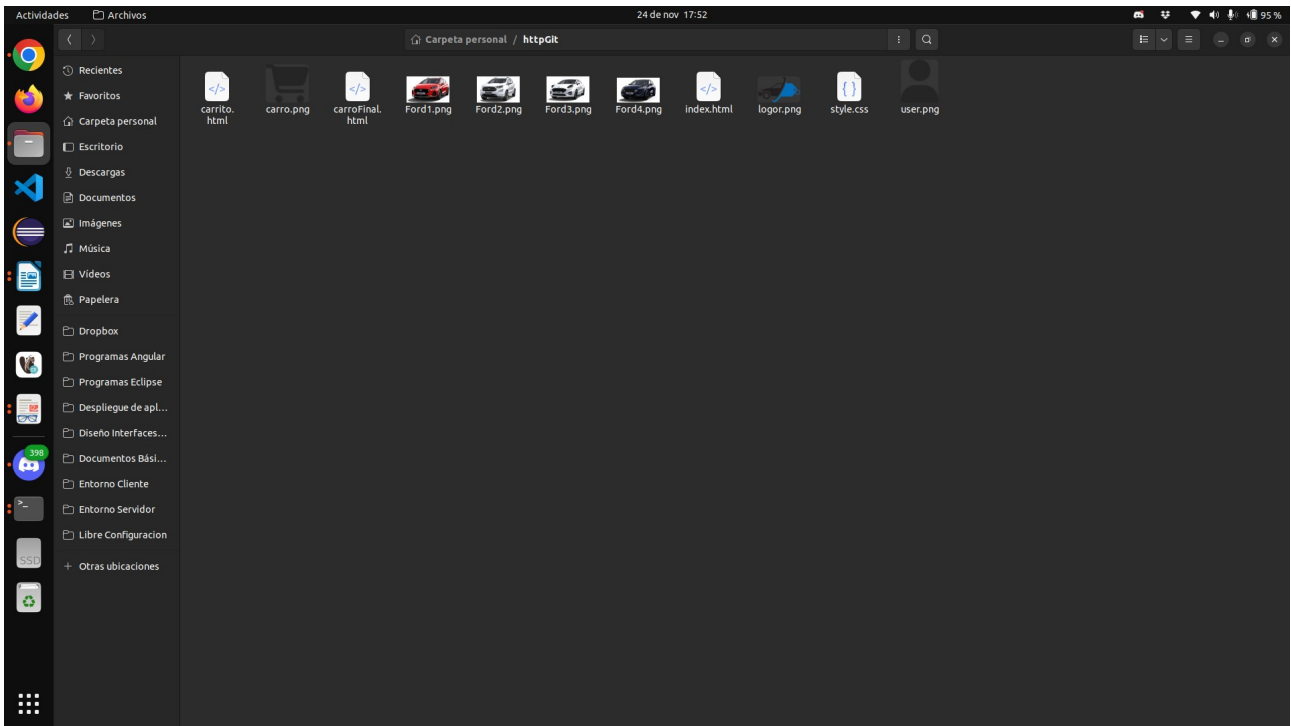
/usr/local/apache2/conf/httpd.conf :

```
FROM httpd:2.4
```

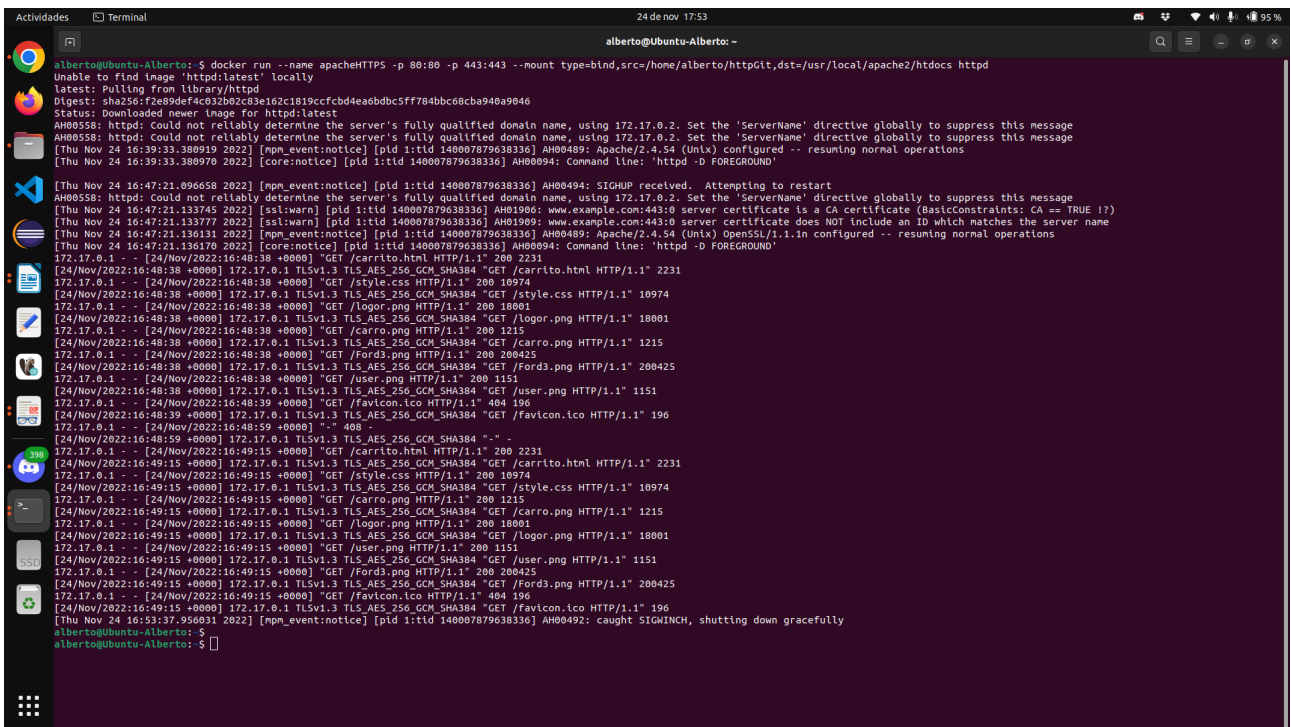
```
COPY ./my-httpd.conf /usr/local/apache2/conf/httpd.conf
```

HTTPS

Primero prepararemos una carpeta en la que introduciremos la información para nuestra página.



Ahora instalaremos apache y mapearemos los puertos con el siguiente comando.



Ahora en una nueva terminal pondremos el siguiente comando:

```
Actividades Terminal 24 de nov 17:49 alberto@Ubuntu-Alberto: ~  
alberto@ubuntu-alberto:~$ docker ps  
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES  
076ff16046fc   httpd     "httpd-foreground"      About a minute ago    Up About a minute    0.0.0.0:80->80/tcp, :::80->80/tcp, 0.0.0.0:443->443/tcp, :::443->443/tcp    apacheHTTPS  
0380bae8d3d6   phpmyadmin/phpmyadmin  "/docker-entrypoint. ..." 2 weeks ago    Up 55 minutes    0.0.0.0:8090->80/tcp, :::8090->80/tcp    phpmyadminDaves  
alberto@ubuntu-alberto:~$ docker exec -it apacheHTTPS /bin/bash  
root@076ff16046fc:/usr/local/apache2# apt update  
Get:1 http://deb.debian.org/debian bullseye InRelease [116 kB]  
Get:2 http://deb.debian.org/debian-security bullseye-security InRelease [48.4 kB]  
Get:3 http://deb.debian.org/debian bullseye-updates InRelease [44.1 kB]  
Get:4 http://deb.debian.org/debian bullseye/main amd64 Packages [9184 kB]  
Get:5 http://deb.debian.org/debian-security bullseye-security/main amd64 Packages [206 kB]  
Get:6 http://deb.debian.org/debian bullseye-updates/main amd64 Packages [14.6 kB]  
Fetched 8013 kB in 9s (915 kB/s)  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
4 packages can be upgraded. Run 'apt list --upgradable' to see them.  
root@076ff16046fc:/usr/local/apache2# nano conf/httpd.conf  
bash: nano: command not found  
root@076ff16046fc:/usr/local/apache2# apt install nano  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
The following additional packages will be installed:  
  libbz2-dev libncursesw6  
Suggested packages:  
  gpm hunspell  
The following NEW packages will be installed:  
  libbz2-dev libncursesw6 nano  
0 upgraded, 3 newly installed, 0 to remove and 4 not upgraded.  
Need to get 824 kB of archives.  
After this operation, 3087 kB of additional disk space will be used.  
Do you want to continue? [Y/n] y  
Get:1 http://deb.debian.org/debian bullseye/main amd64 libncursesw6 amd64 6.2+20201114-2 [132 kB]  
Get:2 http://deb.debian.org/debian bullseye/main amd64 nano amd64 5.4-2deb11u1 [656 kB]  
Get:3 http://deb.debian.org/debian bullseye/main amd64 libbz2-dev amd64 1.20.7-8 [35.6 kB]  
Fetched 824 kB in 5s (157 kB/s)  
debconf: delaying package configuration, since apt-utils is not installed  
Selecting previously unselected package libncursesw6:amd64.  
(Reading database ... 7140 files and directories currently installed.)  
Preparing to unpack .../libncursesw6_6.2+20201114-2_amd64.deb ...  
Unpacking libncursesw6:amd64 (6.2+20201114-2) ...  
Selecting previously unselected package nano.  
Preparing to unpack .../nano_5.4-2deb11u1_amd64.deb ...  
Unpacking nano (5.4-2deb11u1) ...  
Selecting previously unselected package libbz2-dev:amd64.  
Preparing to unpack .../libbz2-dev_1.20.7-8_amd64.deb ...  
Unpacking libbz2-dev:amd64 (1.20.7-8) ...  
Setting up libbz2-dev:amd64 (1.20.7-8) ...  
Setting up libncursesw6:amd64 (6.2+20201114-2) ...  
Setting up nano (5.4-2deb11u1) ...  
update-alternatives: using /bin/nano to provide /usr/bin/editor (editor) in auto mode  
update-alternatives: warning: skip creation of /usr/share/man/man1/editor.1.gz because associated file /usr/share/man/man1/nano.1.gz (of link group editor) does not exist  
update-alternatives: using /bin/nano to provide /usr/bin/pico (pico) in auto mode  
update-alternatives: warning: skip creation of /usr/share/man/man1/pico.1.gz because associated file /usr/share/man/man1/nano.1.gz (of link group pico) doesn't exist  
Processing triggers for libc-bin (2.31-13+deb11u5) ...  
root@076ff16046fc:/usr/local/apache2# nano conf/httpd.conf  
AH00526: Syntax error on line 144 of /usr/local/apache2/conf/extra/httpd-ssl.conf:  
SSLCertificateFile: file '/usr/local/apache2/conf/server.crt' does not exist or is empty  
root@076ff16046fc:/usr/local/apache2# cd conf  
root@076ff16046fc:/usr/local/apache2/conf# ls  
extra httpd.conf magic mime.types original  
root@076ff16046fc:/usr/local/apache2/conf# apt install openssl  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
openssl is already the newest version (1.1.1n-0+deb11u3).  
openssl set to manually installed.  
0 upgraded, 0 newly installed, 0 to remove and 4 not upgraded.  
root@076ff16046fc:/usr/local/apache2/conf# openssl req -x509 -nodes -days 365 -newkey rsa:2048 -keyout server.key -out server.crt  
Generating a RSA private key  
.....  
.....  
writing new private key to 'server.key'  
-----  
You are about to be asked to enter information that will be incorporated  
into your certificate request.  
What you are about to enter is what is called a Distinguished Name or a DN.  
There are quite a few fields but you can leave some blank.  
For some fields there will be a default value,  
If you enter '.', the field will be left blank.  
-----  
Country Name (2 letter code) [AU]:ES  
State or Province Name (full name) [Some-State]:Spain  
Locality Name (eg, city) []:Seville  
Organization Name (eg, company) [Internet Wdgets Pty Ltd]:Jacaranda  
Organizational Unit Name (eg, section) []:Jacaranda  
Common Name (e.g. server FQDN or YOUR name) []:Alberto  
Email Address []:corre@gmail.com  
root@076ff16046fc:/usr/local/apache2/conf# ls  
extra httpd.conf magic mime.types original server.crt server.key  
root@076ff16046fc:/usr/local/apache2/conf# apachectl restart  
AH00558: httpd: could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress this message  
root@076ff16046fc:/usr/local/apache2/conf#
```

Instalaremos nano, y descomentaremos unas líneas del archivo “httpd.conf”

```
Actividades Terminal 24 de nov 17:49 alberto@Ubuntu-Alberto: ~  
Preparing to unpack .../libbz2-dev_1.20.7-8_amd64.deb ...  
Unpacking libbz2-dev:amd64 (1.20.7-8) ...  
Setting up libbz2-dev:amd64 (1.20.7-8) ...  
Setting up libncursesw6:amd64 (6.2+20201114-2) ...  
Setting up nano (5.4-2deb11u1) ...  
update-alternatives: using /bin/nano to provide /usr/bin/editor (editor) in auto mode  
update-alternatives: warning: skip creation of /usr/share/man/man1/editor.1.gz because associated file /usr/share/man/man1/nano.1.gz (of link group editor) does not exist  
update-alternatives: using /bin/nano to provide /usr/bin/pico (pico) in auto mode  
update-alternatives: warning: skip creation of /usr/share/man/man1/pico.1.gz because associated file /usr/share/man/man1/nano.1.gz (of link group pico) doesn't exist  
Processing triggers for libc-bin (2.31-13+deb11u5) ...  
root@076ff16046fc:/usr/local/apache2# nano conf/httpd.conf  
AH00526: Syntax error on line 144 of /usr/local/apache2/conf/extra/httpd-ssl.conf:  
SSLCertificateFile: file '/usr/local/apache2/conf/server.crt' does not exist or is empty  
root@076ff16046fc:/usr/local/apache2# cd conf  
root@076ff16046fc:/usr/local/apache2/conf# ls  
extra httpd.conf magic mime.types original  
root@076ff16046fc:/usr/local/apache2/conf# apt install openssl  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
openssl is already the newest version (1.1.1n-0+deb11u3).  
openssl set to manually installed.  
0 upgraded, 0 newly installed, 0 to remove and 4 not upgraded.  
root@076ff16046fc:/usr/local/apache2/conf# openssl req -x509 -nodes -days 365 -newkey rsa:2048 -keyout server.key -out server.crt  
Generating a RSA private key  
.....  
.....  
writing new private key to 'server.key'  
-----  
You are about to be asked to enter information that will be incorporated  
into your certificate request.  
What you are about to enter is what is called a Distinguished Name or a DN.  
There are quite a few fields but you can leave some blank.  
For some fields there will be a default value,  
If you enter '.', the field will be left blank.  
-----  
Country Name (2 letter code) [AU]:ES  
State or Province Name (full name) [Some-State]:Spain  
Locality Name (eg, city) []:Seville  
Organization Name (eg, company) [Internet Wdgets Pty Ltd]:Jacaranda  
Organizational Unit Name (eg, section) []:Jacaranda  
Common Name (e.g. server FQDN or YOUR name) []:Alberto  
Email Address []:corre@gmail.com  
root@076ff16046fc:/usr/local/apache2/conf# ls  
extra httpd.conf magic mime.types original server.crt server.key  
root@076ff16046fc:/usr/local/apache2/conf# apachectl restart  
AH00558: httpd: could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress this message  
root@076ff16046fc:/usr/local/apache2/conf#
```

Ahora para que funcione en vez de poner el comando “openssl req -x509 -nodes -days 365 -newkey rsa:2048 -keyout server.key -out server.crt” haremos un restart.

Una vez reiniciado entraremos en la carpeta “conf” e instalaremos “openssl” y ahora sí usaremos este comando “openssl req -x509 -nodes -days 365 -newkey rsa:2048 -keyout server.key -out server.crt”

A continuación deberemos introducir la información que nos pidan y restart de nuevo.

Una vez realizado este proceso podremos irnos a nuestro enlace y ver el html.

