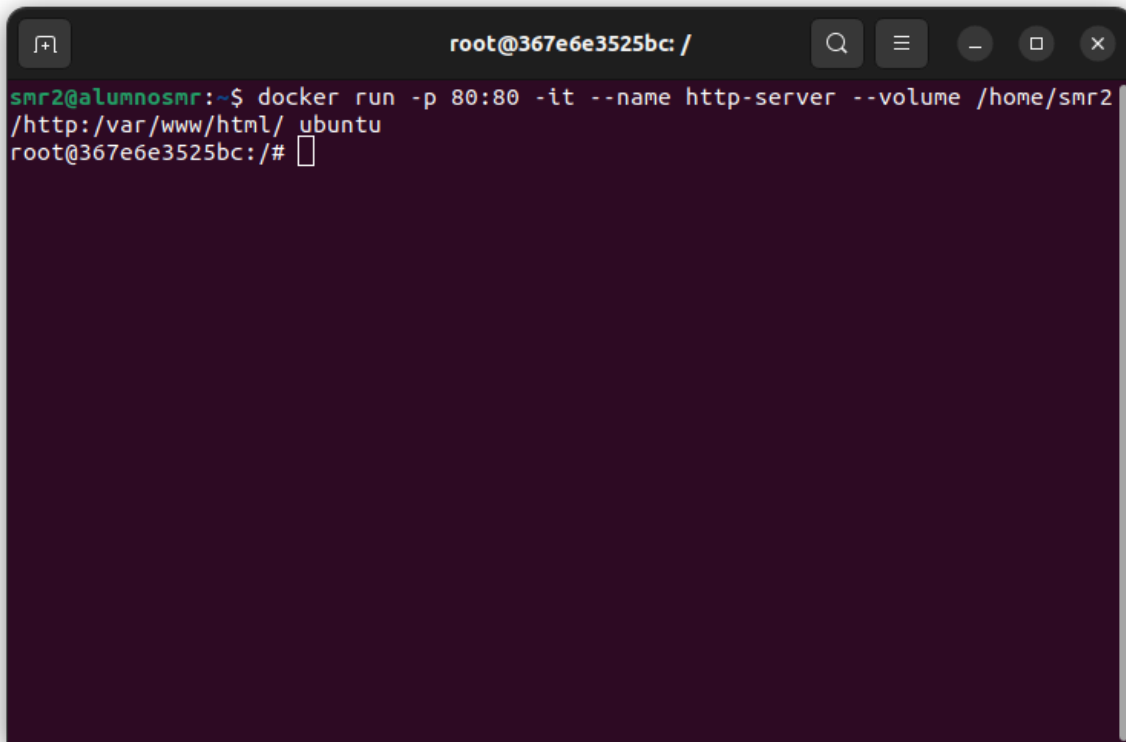


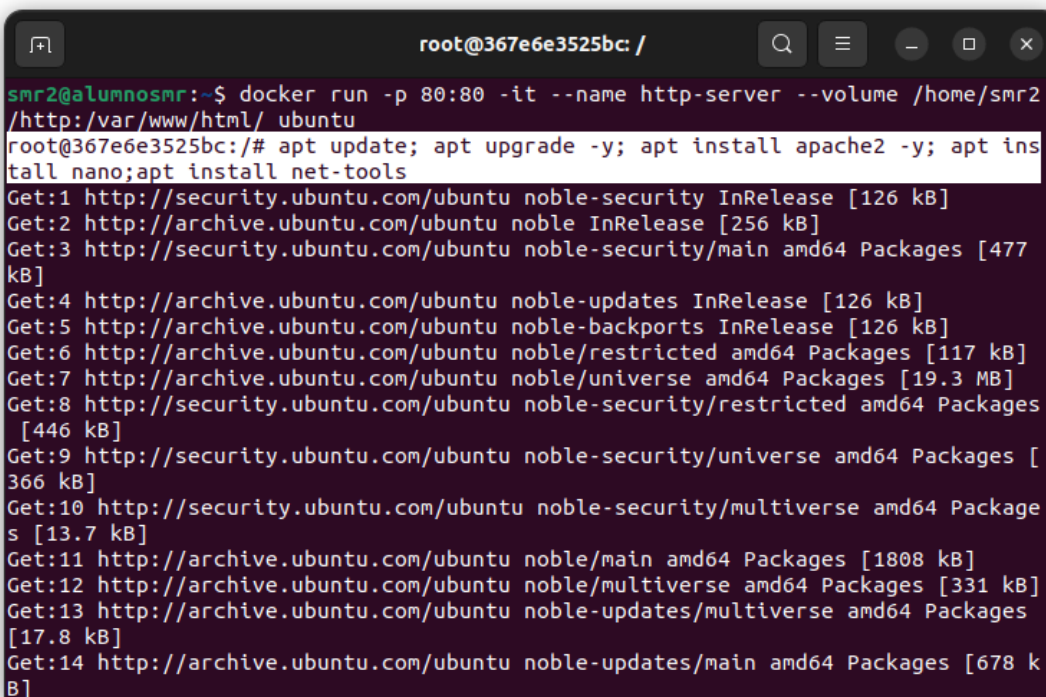
COMO CONFIGURAR HOSTS VIRTUALES EN APACHE2

1. Creamos un docker mapeando el puerto 80:80 para que el host y otras maquinas externas puedan acceder a este y creamos un volume para poder trabajar con archivos entre el contenedor y el host.



```
root@367e6e3525bc: /
smr2@alumnosmr:~$ docker run -p 80:80 -it --name http-server --volume /home/smr2
/http:/var/www/html/ ubuntu
root@367e6e3525bc:/#
```

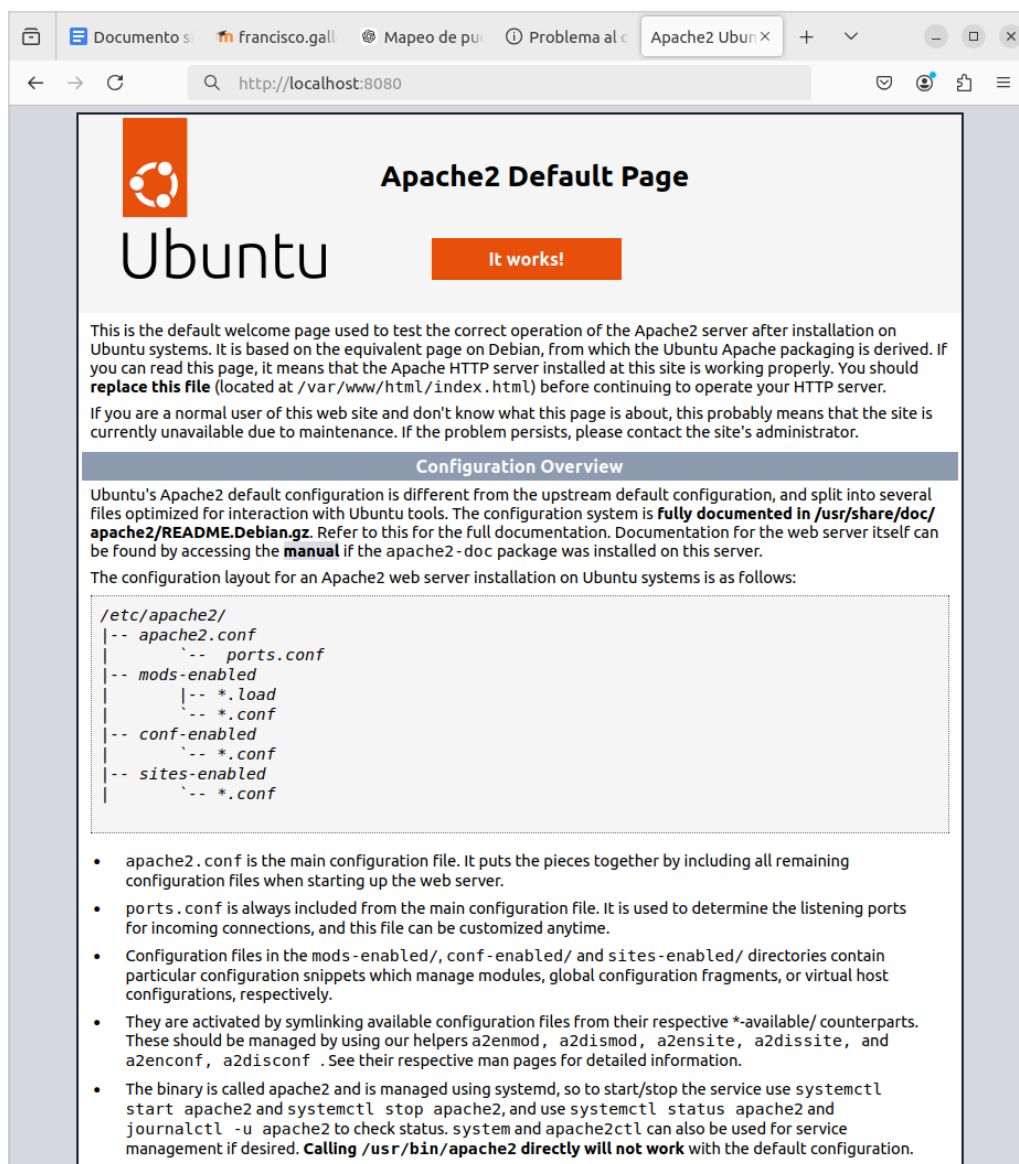
2. Instalamos apache2, nano y net-tools previamente actualizando APT.



```
root@367e6e3525bc: /
smr2@alumnosmr:~$ docker run -p 80:80 -it --name http-server --volume /home/smr2
/http:/var/www/html/ ubuntu
root@367e6e3525bc:/# apt update; apt upgrade -y; apt install apache2 -y; apt ins
tall nano;apt install net-tools
Get:1 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:2 http://archive.ubuntu.com/ubuntu noble InRelease [256 kB]
Get:3 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [477
kB]
Get:4 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:5 http://archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:6 http://archive.ubuntu.com/ubuntu noble/restricted amd64 Packages [117 kB]
Get:7 http://archive.ubuntu.com/ubuntu noble/universe amd64 Packages [19.3 MB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages
[446 kB]
Get:9 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [
366 kB]
Get:10 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Package
s [13.7 kB]
Get:11 http://archive.ubuntu.com/ubuntu noble/main amd64 Packages [1808 kB]
Get:12 http://archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [331 kB]
Get:13 http://archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages
[17.8 kB]
Get:14 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [678 k
B]
```

3. Iniciamos el servicio apache2 y accedemos al localhost a ver si funciona correctamente

```
root@367e6e3525bc: /var/www
root@367e6e3525bc:/var/www# service --status-all
[ - ] apache-htcacheclean
[ - ] apache2
[ - ] procs
root@367e6e3525bc:/var/www# service apache2 start
* Starting Apache httpd web server apache2
AH00558: apache2: 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@367e6e3525bc:/var/www#
```



4. Creamos una carpeta en el directorio var/www y copiamos el fichero principal de nuestra web al directorio

```
root@367e6e3525bc: /var/www
Need to get 204 kB of archives.
After this operation, 811 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu noble/main amd64 net-tools amd64 2.10-0.1ubuntu4 [204 kB]
Fetched 204 kB in 0s (436 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
Selecting previously unselected package net-tools.
(Reading database ... 7923 files and directories currently installed.)
Preparing to unpack .../net-tools_2.10-0.1ubuntu4_amd64.deb ...
Unpacking net-tools (2.10-0.1ubuntu4) ...
Setting up net-tools (2.10-0.1ubuntu4) ...
root@367e6e3525bc: /# ls
bin          etc          lib64        proc         sbin.usr-is-merged  usr
bin.usr-is-merged  home        media        root         srv                var
boot         lib          mnt          run          sys
dev          lib.usr-is-merged  opt          sbin         tmp
root@367e6e3525bc: /# cd var/
backups/ lib/      lock/      mail/      run/      tmp/
cache/  local/  log/      opt/      spool/    www/
root@367e6e3525bc: /# cd var/www
root@367e6e3525bc: /var/www# mkdir host-virtual
root@367e6e3525bc: /var/www# ls
host-virtual  html
root@367e6e3525bc: /var/www#
```

```
root@367e6e3525bc: /var/www/host-virtual
root@367e6e3525bc: ~# ../
bash: ../: Is a directory
root@367e6e3525bc: ~# cd ../
root@367e6e3525bc: /# ls
bin          etc          lib64        proc         sbin.usr-is-merged  usr
bin.usr-is-merged  home        media        root         srv                var
boot         lib          mnt          run          sys
dev          lib.usr-is-merged  opt          sbin         tmp
root@367e6e3525bc: /# cp var/www/h
host-virtual/ html/
root@367e6e3525bc: /# cp var/www/html var/
backups/ lib/      lock/      mail/      run/      tmp/
cache/  local/  log/      opt/      spool/    www/
root@367e6e3525bc: /# cp var/www/html var/www/h
host-virtual/ html/
root@367e6e3525bc: /# cp var/www/html var/www/host-virtual
cp: -r not specified; omitting directory 'var/www/html'
root@367e6e3525bc: /# cp var/www/html/index.html var/www/host-virtual
root@367e6e3525bc: /# cd var/www/h
host-virtual/ html/
root@367e6e3525bc: /# cd var/www/host-virtual/
root@367e6e3525bc: /var/www/host-virtual# ls
index.html
root@367e6e3525bc: /var/www/host-virtual#
```

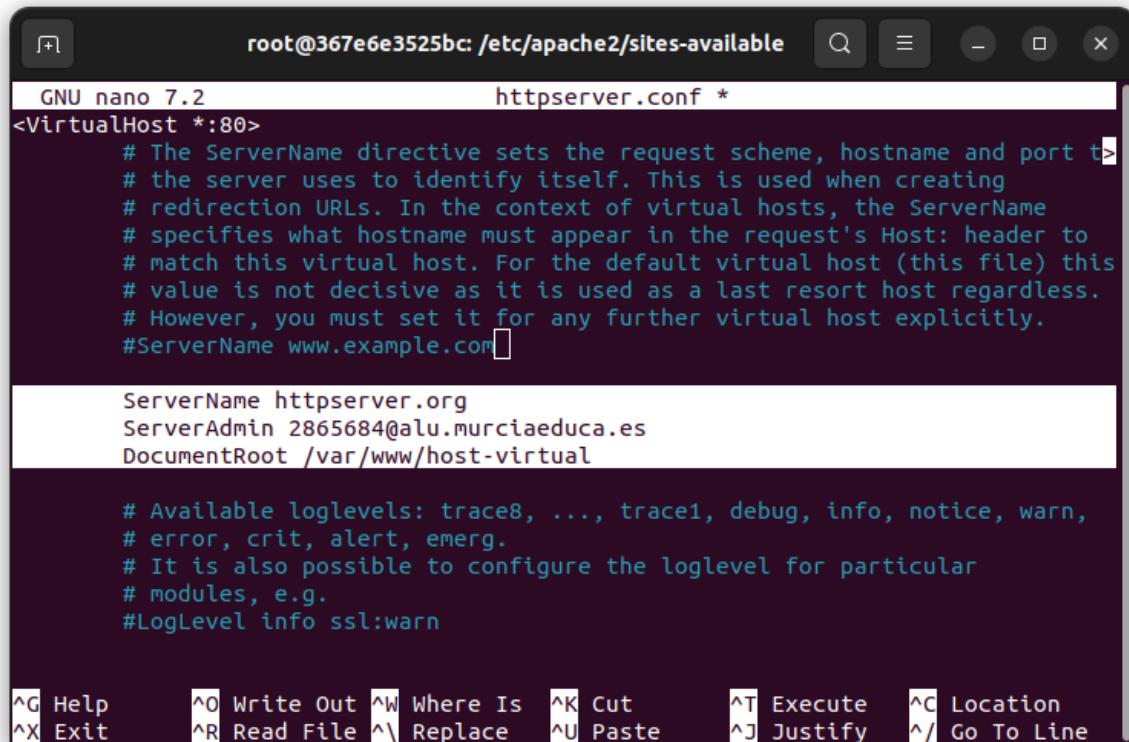
5. Accedemos a la ruta donde estan los archivos de apache2 y podemos encontrar varios ficheros de configuración en texto plano

```
root@367e6e3525bc: /etc/apache2
host-virtual/ html/
root@367e6e3525bc:/# cp var/www/html var/
backups/ lib/ lock/ mail/ run/ tmp/
cache/ local/ log/ opt/ spool/ www/
root@367e6e3525bc:/# cp var/www/html var/www/h
host-virtual/ html/
root@367e6e3525bc:/# cp var/www/html var/www/host-virtual
cp: -r not specified; omitting directory 'var/www/html'
root@367e6e3525bc:/# cp var/www/html/index.html var/www/host-virtual
root@367e6e3525bc:/# cd var/www/h
host-virtual/ html/
root@367e6e3525bc:/# cd var/www/host-virtual/
root@367e6e3525bc:/var/www/host-virtual# ls
index.html
root@367e6e3525bc:/var/www/host-virtual# cd ..
root@367e6e3525bc:/var/www# cd ..
root@367e6e3525bc:/var# cd ..
root@367e6e3525bc:/# cd ./etc/apache2 ls
bash: cd: too many arguments
root@367e6e3525bc:/# cd ./etc/apache2
root@367e6e3525bc:/etc/apache2# ls
apache2.conf  conf-enabled  magic  mods-enabled  sites-available
conf-available  envvars  mods-available  ports.conf  sites-enabled
root@367e6e3525bc:/etc/apache2#
```

6. Una vez ya dentro del directorio nos meteremos al directorio sites-available y encontraremos el archivo de configuración de host 000-default.conf y accedemos con “nano 000-default.conf”

```
root@367e6e3525bc: /etc/apache2/sites-available
root@367e6e3525bc:~# cd .
./
./ .bashrc .profile
root@367e6e3525bc:~# cd .
./
./ .bashrc .profile
root@367e6e3525bc:~# cd .bashrc
bash: cd: .bashrc: Not a directory
root@367e6e3525bc:~# ../
bash: ../: Is a directory
root@367e6e3525bc:~# cd ../
root@367e6e3525bc:~# ls
bin  etc  lib64  proc  sbin  usr  var
bin-usr-is-merged  home  media  root  srv
boot  lib  mnt  run  sys
dev  lib-usr-is-merged  opt  sbin  tmp
root@367e6e3525bc:/# cp var/www/h
host-virtual/ html/
root@367e6e3525bc:/# cp var/www/html var/
backups/ lib/ lock/ mail/ run/ tmp/
cache/ local/ log/ opt/ spool/ www/
root@367e6e3525bc:/# cp var/www/html var/www/h
host-virtual/ html/
root@367e6e3525bc:/# cp var/www/html var/www/host-virtual
cp: -r not specified; omitting directory 'var/www/html'
root@367e6e3525bc:/# cp var/www/html/index.html var/www/host-virtual
root@367e6e3525bc:/# cd var/www/h
host-virtual/ html/
root@367e6e3525bc:/# cd var/www/host-virtual/
root@367e6e3525bc:/var/www/host-virtual# ls
index.html
root@367e6e3525bc:/var/www/host-virtual# cd ..
root@367e6e3525bc:/var/www# cd ..
root@367e6e3525bc:/var# cd ..
root@367e6e3525bc:/# cd ./etc/apache2 ls
bash: cd: too many arguments
root@367e6e3525bc:/# cd ./etc/apache2
root@367e6e3525bc:/etc/apache2# ls
apache2.conf  conf-enabled  magic  mods-enabled  sites-available
conf-available  envvars  mods-available  ports.conf  sites-enabled
root@367e6e3525bc:/etc/apache2# cd sites-
bash: cd: sites: No such file or directory
root@367e6e3525bc:/etc/apache2# cd sites-available/
root@367e6e3525bc:/etc/apache2/sites-available# ls
000-default.conf  default-ssl.conf
root@367e6e3525bc:/etc/apache2/sites-available# nano 000-default.conf
root@367e6e3525bc:/etc/apache2/sites-available#
root@367e6e3525bc:/etc/apache2/sites-available# nano 000-default.conf
root@367e6e3525bc:/etc/apache2/sites-available#
```

7. Configuramos la ruta del documento actual la cual es la que hemos creado previamente y el nombre del servidor



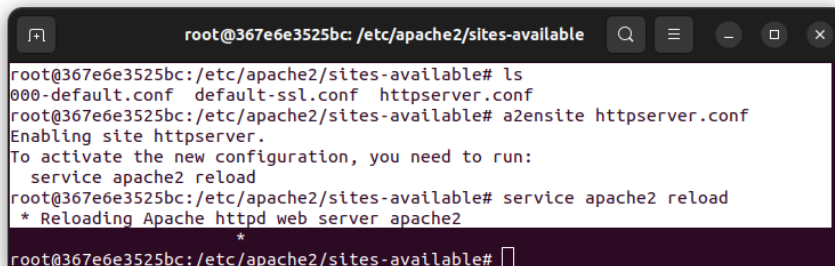
```
root@367e6e3525bc: /etc/apache2/sites-available
GNU nano 7.2 httpserver.conf *
<VirtualHost *:80>
# The ServerName directive sets the request scheme, hostname and port that
# the server uses to identify itself. This is used when creating
# redirection URLs. In the context of virtual hosts, the ServerName
# specifies what hostname must appear in the request's Host: header to
# match this virtual host. For the default virtual host (this file) this
# value is not decisive as it is used as a last resort host regardless.
# However, you must set it for any further virtual host explicitly.
#ServerName www.example.com

ServerName httpserver.org
ServerAdmin 2865684@alu.murciaeduca.es
DocumentRoot /var/www/host-virtual

# Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
# error, crit, alert, emerg.
# It is also possible to configure the loglevel for particular
# modules, e.g.
#LogLevel info ssl:warn

^G Help      ^O Write Out ^W Where Is  ^K Cut       ^T Execute  ^C Location
^X Exit      ^R Read File ^\ Replace   ^U Paste     ^J Justify  ^_ Go To Line
```

8. Actualizamos la ruta del fichero web de apache haciendo el comando a2ensite con el nombre de nuestro fichero



```
root@367e6e3525bc: /etc/apache2/sites-available
root@367e6e3525bc:/etc/apache2/sites-available# ls
000-default.conf default-ssl.conf httpserver.conf
root@367e6e3525bc:/etc/apache2/sites-available# a2ensite httpserver.conf
Enabling site httpserver.
To activate the new configuration, you need to run:
  service apache2 reload
root@367e6e3525bc:/etc/apache2/sites-available# service apache2 reload
* Reloading Apache httpd web server apache2
root@367e6e3525bc:/etc/apache2/sites-available#
```

9. Ahora nos metemos en cd ./etc/hosts y con la misma ip añadimos un nuevo host "httpserver.org"

