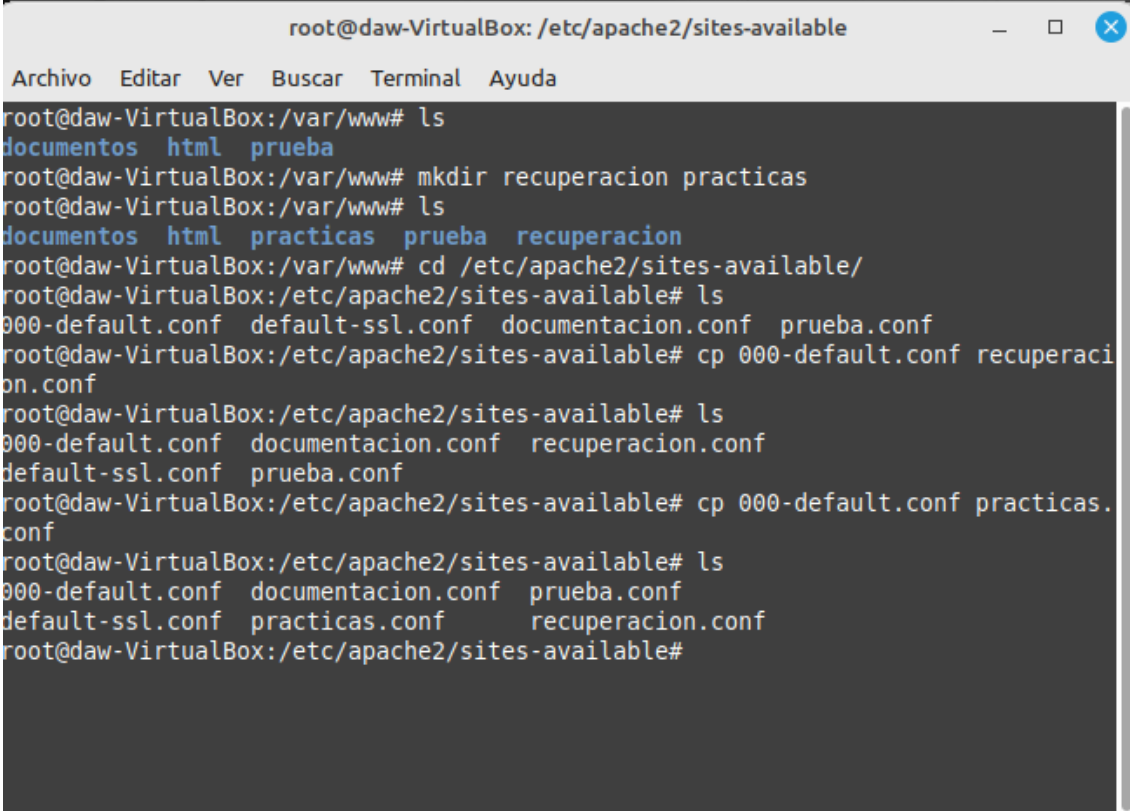


## RECUPERACION T2-ALVARO JOAQUIN ALBARRACIN SALINAS

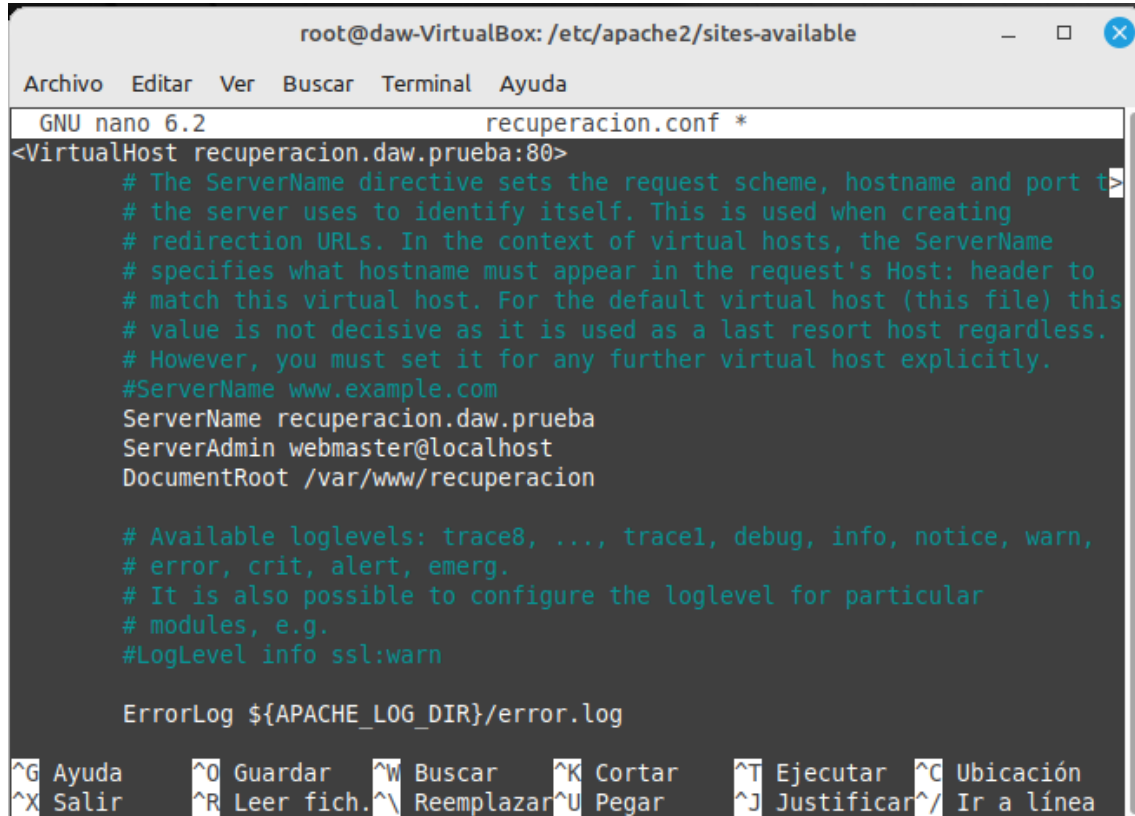
1.

Creación de las carpetas en origen y de los ficheros de configuración.



```
root@daw-VirtualBox: /etc/apache2/sites-available
Archivo  Editar  Ver  Buscar  Terminal  Ayuda
root@daw-VirtualBox:/var/www# ls
documentos  html  prueba
root@daw-VirtualBox:/var/www# mkdir recuperacion practicas
root@daw-VirtualBox:/var/www# ls
documentos  html  practicas  prueba  recuperacion
root@daw-VirtualBox:/var/www# cd /etc/apache2/sites-available/
root@daw-VirtualBox:/etc/apache2/sites-available# ls
000-default.conf  default-ssl.conf  documentacion.conf  prueba.conf
root@daw-VirtualBox:/etc/apache2/sites-available# cp 000-default.conf recuperacion.conf
root@daw-VirtualBox:/etc/apache2/sites-available# ls
000-default.conf  documentacion.conf  recuperacion.conf
default-ssl.conf  prueba.conf
root@daw-VirtualBox:/etc/apache2/sites-available# cp 000-default.conf practicas.conf
root@daw-VirtualBox:/etc/apache2/sites-available# ls
000-default.conf  documentacion.conf  prueba.conf
default-ssl.conf  practicas.conf      recuperacion.conf
root@daw-VirtualBox:/etc/apache2/sites-available#
```

Configuración del sitio recuperacion.conf.



The screenshot shows a terminal window titled 'root@daw-VirtualBox: /etc/apache2/sites-available'. Inside, the GNU nano 6.2 editor is open to the file 'recuperacion.conf'. The configuration is for a VirtualHost named 'recuperacion.daw.prueba:80'. It includes comments about the ServerName directive, followed by 'ServerName recuperacion.daw.prueba', 'ServerAdmin webmaster@localhost', and 'DocumentRoot /var/www/recuperacion'. There are also log level settings and an 'ErrorLog' directive. At the bottom, a legend shows keyboard shortcuts for various actions like 'Ayuda', 'Guardar', 'Buscar', etc.

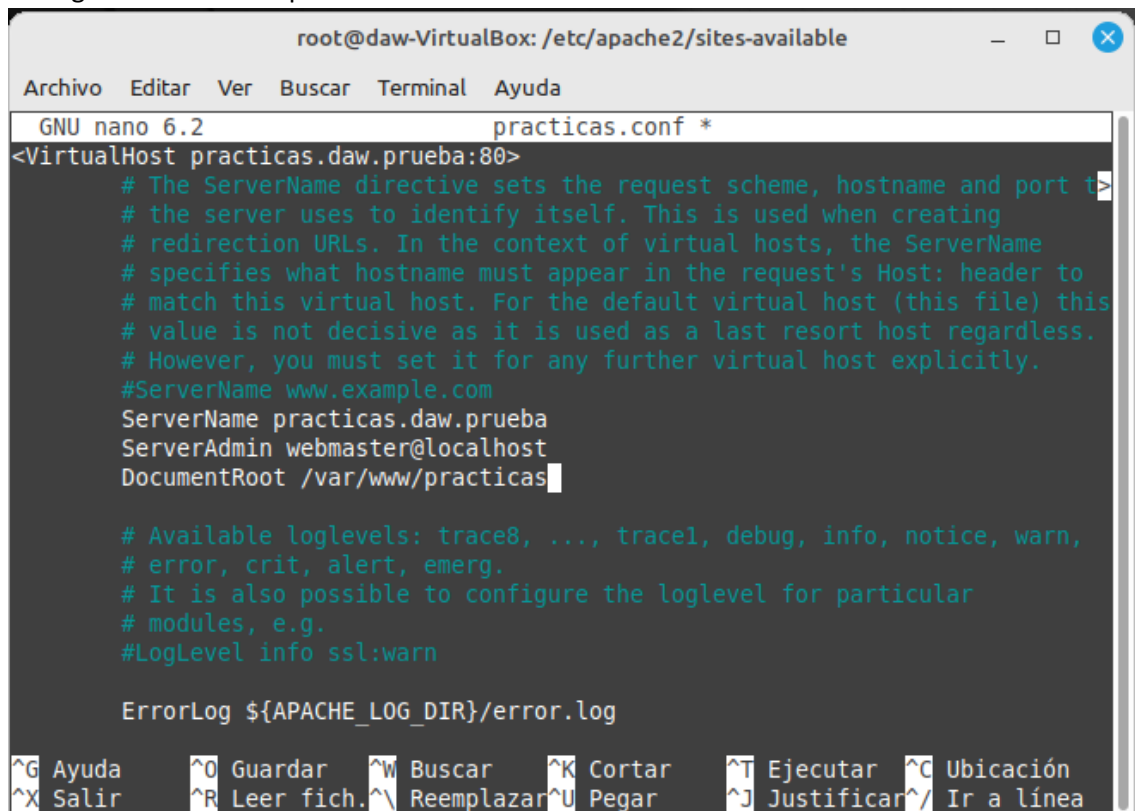
```
root@daw-VirtualBox: /etc/apache2/sites-available
GNU nano 6.2 recuperacion.conf *
<VirtualHost recuperacion.daw.prueba:80>
    # The ServerName directive sets the request scheme, hostname and port that
    # the server uses to identify itself. This is used when creating
    # redirection URLs. In 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 recuperacion.daw.prueba
    ServerAdmin webmaster@localhost
    DocumentRoot /var/www/recuperacion

    # 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

    ErrorLog ${APACHE_LOG_DIR}/error.log

^G Ayuda  ^O Guardar  ^W Buscar  ^K Cortar  ^T Ejecutar  ^C Ubicación
^X Salir  ^R Leer fich. ^\ Reemplazar ^U Pegar  ^J Justificar ^/ Ir a línea
```

Configuración del sitio practicas.conf.



The screenshot shows a terminal window titled 'root@daw-VirtualBox: /etc/apache2/sites-available'. Inside, the GNU nano 6.2 editor is open to the file 'practicas.conf'. The configuration is for a VirtualHost named 'practicas.daw.prueba:80'. It includes comments about the ServerName directive, followed by 'ServerName practicas.daw.prueba', 'ServerAdmin webmaster@localhost', and 'DocumentRoot /var/www/practicas'. There are also log level settings and an 'ErrorLog' directive. At the bottom, a legend shows keyboard shortcuts for various actions like 'Ayuda', 'Guardar', 'Buscar', etc.

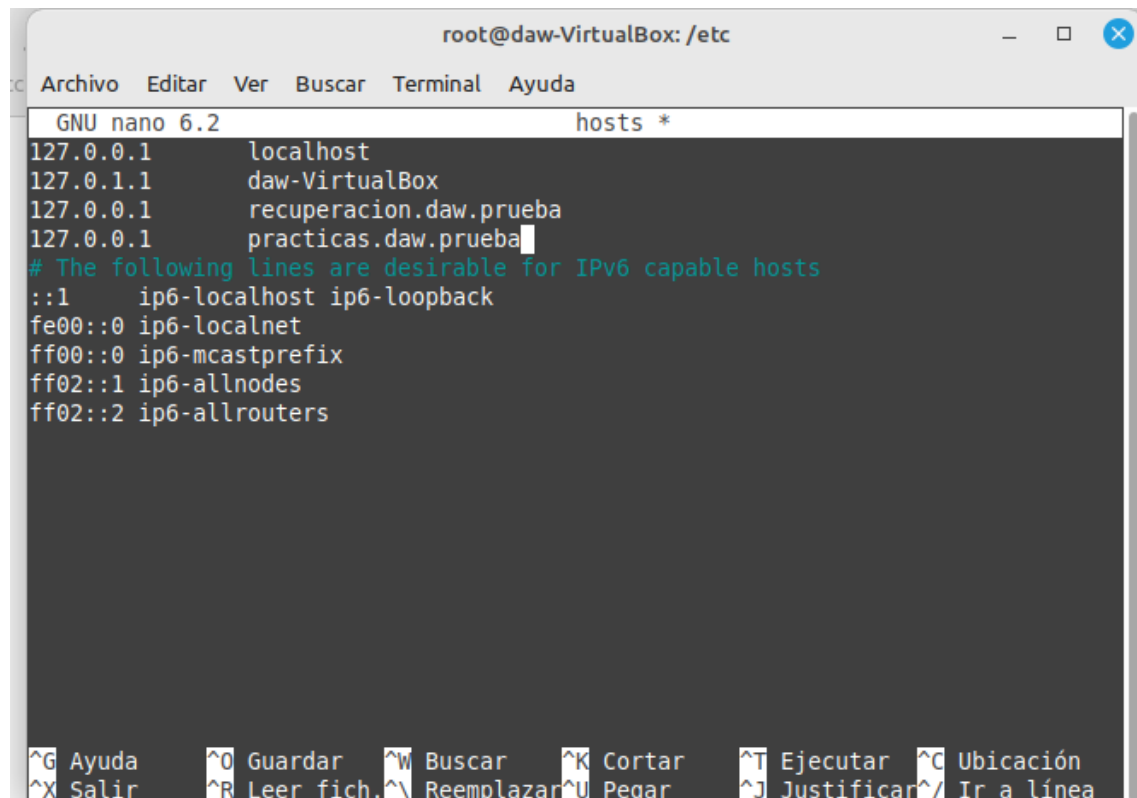
```
root@daw-VirtualBox: /etc/apache2/sites-available
GNU nano 6.2 practicas.conf *
<VirtualHost practicas.daw.prueba:80>
    # The ServerName directive sets the request scheme, hostname and port that
    # the server uses to identify itself. This is used when creating
    # redirection URLs. In the 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 practicas.daw.prueba
    ServerAdmin webmaster@localhost
    DocumentRoot /var/www/practicas

    # 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

    ErrorLog ${APACHE_LOG_DIR}/error.log

^G Ayuda  ^O Guardar  ^W Buscar  ^K Cortar  ^T Ejecutar  ^C Ubicación
^X Salir  ^R Leer fich. ^\ Reemplazar ^U Pegar  ^J Justificar ^/ Ir a línea
```

Añadimos los dominios al archivo de hosts.

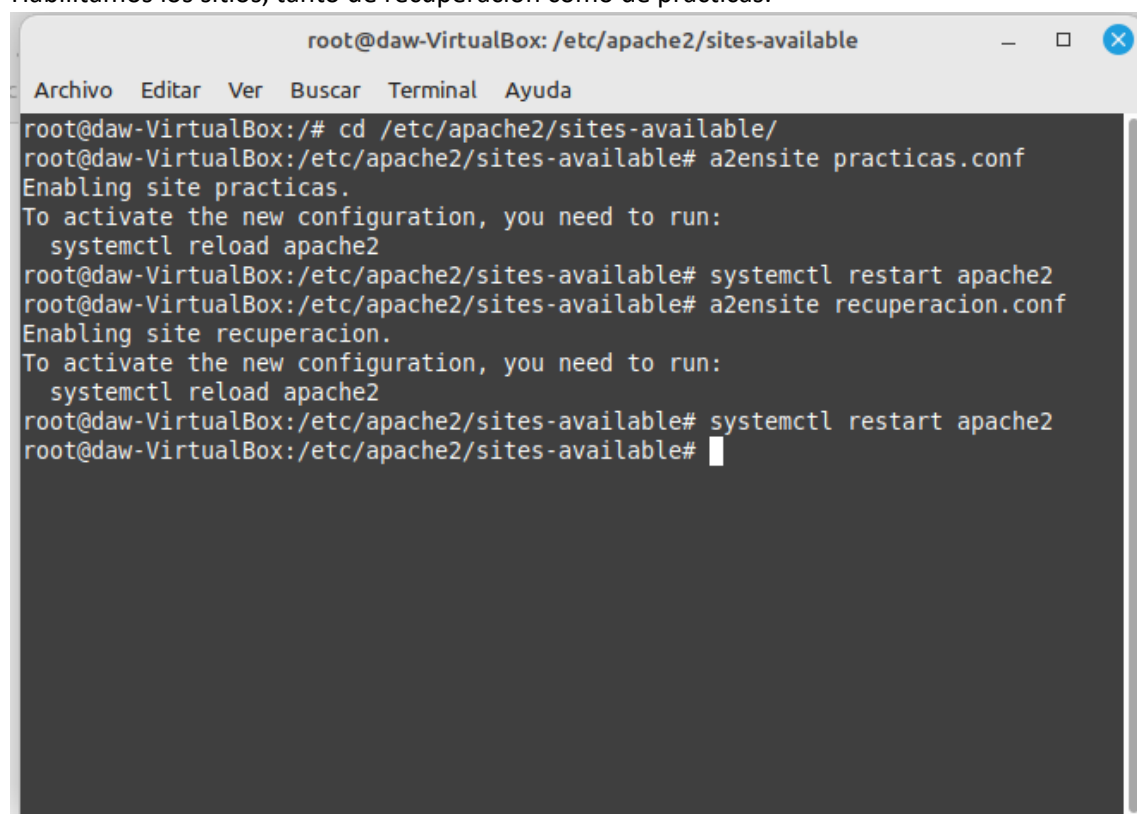


The screenshot shows a terminal window titled 'root@daw-VirtualBox: /etc'. The window contains the GNU nano 6.2 editor editing the /etc/hosts file. The file content is as follows:

```
127.0.0.1 localhost
127.0.1.1 daw-VirtualBox
127.0.0.1 recuperacion.daw.prueba
127.0.0.1 practicas.daw.prueba
# The following lines are desirable for IPv6 capable hosts
::1 ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
```

The bottom of the window shows a status bar with various keyboard shortcuts: ^G Ayuda, ^O Guardar, ^W Buscar, ^K Cortar, ^T Ejecutar, ^C Ubicación, ^X Salir, ^R Leer fich., ^\_ Reemplazar, ^U Pegar, ^J Justificar, ^\_/ Ir a línea.

Habilitamos los sitios, tanto de recuperación como de prácticas.



The screenshot shows a terminal window titled 'root@daw-VirtualBox: /etc/apache2/sites-available'. The window contains the following commands and output:

```
root@daw-VirtualBox:/# cd /etc/apache2/sites-available/
root@daw-VirtualBox:/etc/apache2/sites-available# a2ensite practicas.conf
Enabling site practicas.
To activate the new configuration, you need to run:
  systemctl reload apache2
root@daw-VirtualBox:/etc/apache2/sites-available# systemctl restart apache2
root@daw-VirtualBox:/etc/apache2/sites-available# a2ensite recuperacion.conf
Enabling site recuperacion.
To activate the new configuration, you need to run:
  systemctl reload apache2
root@daw-VirtualBox:/etc/apache2/sites-available# systemctl restart apache2
root@daw-VirtualBox:/etc/apache2/sites-available#
```

Editamos los ficheros creados en las carpetas correspondientes para que se muestren al abrir el navegador con el dominio correspondiente.

\*index.html (/var/www/practicas) (como superusuario)

Archivo Editar Ver Buscar Herramientas Documentos Ayuda

Privilegios elevados

\*index.html x

<h1>PAGINA WEB DE PRACTICAS DE ÁLVARO</h1>

HTML Espacios: 4 Lín 1, col 38 INS

\*index.html (/var/www/recuperacion) (como superusuario)

Archivo Editar Ver Buscar Herramientas Documentos Ayuda

Privilegios elevados

\*index.html x

<h1>PAGINA WEB DE LA RECUPERACION DE ALVARO</h1>

HTML Espacios: 4 Lín 1, col 44 INS

Comprobamos ambos dominios con un ping.

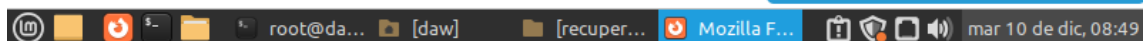
```
root@daw-VirtualBox: /etc/apache2/sites-available
Archivo  Editar  Ver  Buscar  Terminal  Ayuda
root@daw-VirtualBox:/etc/apache2/sites-available# ping recuperacion.daw.prueba
PING recuperacion.daw.prueba (127.0.0.1) 56(84) bytes of data.
64 bytes from localhost (127.0.0.1): icmp_seq=1 ttl=64 time=0.022 ms
64 bytes from localhost (127.0.0.1): icmp_seq=2 ttl=64 time=0.046 ms
64 bytes from localhost (127.0.0.1): icmp_seq=3 ttl=64 time=0.049 ms
^C
--- recuperacion.daw.prueba ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2042ms
rtt min/avg/max/mdev = 0.022/0.039/0.049/0.012 ms
root@daw-VirtualBox:/etc/apache2/sites-available# ping practicas.daw.prueba
PING practicas.daw.prueba (127.0.0.1) 56(84) bytes of data.
64 bytes from localhost (127.0.0.1): icmp_seq=1 ttl=64 time=0.025 ms
64 bytes from localhost (127.0.0.1): icmp_seq=2 ttl=64 time=0.059 ms
64 bytes from localhost (127.0.0.1): icmp_seq=3 ttl=64 time=0.040 ms
^C
--- practicas.daw.prueba ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2053ms
rtt min/avg/max/mdev = 0.025/0.041/0.059/0.013 ms
root@daw-VirtualBox:/etc/apache2/sites-available#
```

Comprobamos ambos dominios en nuestro navegador web.



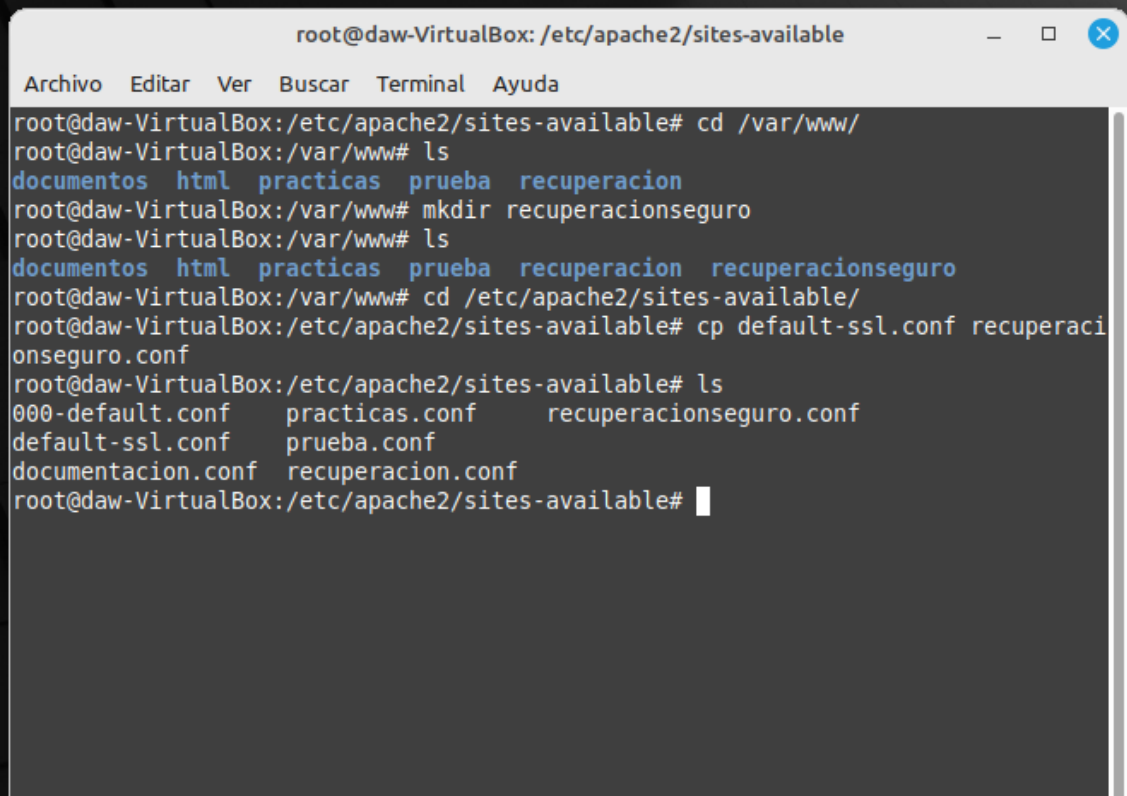
**PAGINA WEB DE PRACTICAS DE ÁLVARO**

Haga clic para ver el calendario del mes



2.

Creamos la carpeta de origen segura y su archivo de configuración seguro.



```
root@daw-VirtualBox: /etc/apache2/sites-available
Archivo  Editar  Ver  Buscar  Terminal  Ayuda
root@daw-VirtualBox:/etc/apache2/sites-available# cd /var/www/
root@daw-VirtualBox:/var/www# ls
documentos  html  practicas  prueba  recuperacion
root@daw-VirtualBox:/var/www# mkdir recuperacionseguro
root@daw-VirtualBox:/var/www# ls
documentos  html  practicas  prueba  recuperacion  recuperacionseguro
root@daw-VirtualBox:/var/www# cd /etc/apache2/sites-available/
root@daw-VirtualBox:/etc/apache2/sites-available# cp default-ssl.conf recuperacionseguro.conf
root@daw-VirtualBox:/etc/apache2/sites-available# ls
000-default.conf  practicas.conf  recuperacionseguro.conf
default-ssl.conf  prueba.conf
documentacion.conf  recuperacion.conf
root@daw-VirtualBox:/etc/apache2/sites-available#
```

Hacemos a2enmod ssl y reiniciamos apache.

```
root@daw-VirtualBox: /etc/apache2/sites-available
Archivo  Editar  Ver  Buscar  Terminal  Ayuda
root@daw-VirtualBox:/etc/apache2/sites-available# a2enmod ssl
Considering dependency setenvif for ssl:
Module setenvif already enabled
Considering dependency mime for ssl:
Module mime already enabled
Considering dependency socache_shmcb for ssl:
Enabling module socache_shmcb.
Enabling module ssl.
See /usr/share/doc/apache2/README.Debian.gz on how to configure SSL and create self-signed certificates.
To activate the new configuration, you need to run:
    systemctl restart apache2
root@daw-VirtualBox:/etc/apache2/sites-available# systemctl restart apache2
root@daw-VirtualBox:/etc/apache2/sites-available#
```

Configuramos el fichero seguro.

```
root@daw-VirtualBox: /etc/apache2/sites-available
Archivo  Editar  Ver  Buscar  Terminal  Ayuda
GNU nano 6.2 recuperacionseguro.conf *
<IfModule mod_ssl.c>
    <VirtualHost _default_:443>
        ServerAdmin webmaster@localhost
        ServerName recuperacionseguro.daw.prueba
        DocumentRoot /var/www/recuperacionseguro

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

        ErrorLog ${APACHE_LOG_DIR}/error.log
        CustomLog ${APACHE_LOG_DIR}/access.log combined

        # For most configuration files from conf-available/, which are
        # enabled or disabled at a global level, it is possible to
        # include a line for only one particular virtual host. For exam
        # following line enables the CGI configuration for this host on
        # after it has been globally disabled with "a2disconf".

^G Ayuda      ^O Guardar    ^W Buscar     ^K Cortar     ^T Ejecutar   ^C Ubicación
^X Salir      ^R Leer fich. ^\ Reemplazar  ^U Pegar      ^J Justificar ^/ Ir a línea
```



Añadimos el dominio seguro al archivo hosts.

```
root@daw-VirtualBox: /etc
Archivo Editar Ver Buscar Terminal Ayuda
GNU nano 6.2 hosts *
127.0.0.1 localhost
127.0.1.1 daw-VirtualBox
127.0.0.1 recuperacion.daw.prueba
127.0.0.1 practicas.daw.prueba
127.0.0.1 recuperacionseguro.daw.prueba
# The following lines are desirable for IPv6 capable hosts
::1 ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters

^G Ayuda ^O Guardar ^W Buscar ^K Cortar ^T Ejecutar ^C Ubicación
^X Salir ^R Leer fich. ^\ Reemplazar ^U Pegar ^J Justificar ^/ Ir a línea
```

Creamos la carpeta ssl.

```
root@daw-VirtualBox: /etc/apache2
Archivo Editar Ver Buscar Terminal Ayuda
Module mime already enabled
Considering dependency socache_shmcb for ssl:
Enabling module socache_shmcb.
Enabling module ssl.
See /usr/share/doc/apache2/README.Debian.gz on how to configure SSL and create s
elf-signed certificates.
To activate the new configuration, you need to run:
  systemctl restart apache2
root@daw-VirtualBox:/etc/apache2/sites-available# systemctl restart apache2
root@daw-VirtualBox:/etc/apache2/sites-available# nano recuperacionseguro.conf
root@daw-VirtualBox:/etc/apache2/sites-available# cd /etc/
root@daw-VirtualBox:/etc# nano ports
root@daw-VirtualBox:/etc# nano hosts
root@daw-VirtualBox:/etc# cd /etc/apache2/
root@daw-VirtualBox:/etc/apache2# ls
apache2.conf  envvars      mods-enabled  sites-available
conf-available  magic        password      sites-enabled
conf-enabled   mods-available  ports.conf
root@daw-VirtualBox:/etc/apache2# mkdir -p /etc/apache2/ssl
root@daw-VirtualBox:/etc/apache2# ls
apache2.conf  envvars      mods-enabled  sites-available
conf-available  magic        password      sites-enabled
conf-enabled   mods-available  ports.conf    ssl
root@daw-VirtualBox:/etc/apache2#
```

Creamos el certificado.

```
root@daw-VirtualBox: /etc/apache2
```

Archivo Editor Ver Buscar Terminal Ayuda

```
root@daw-VirtualBox:/etc/apache2# openssl req -x509 -nodes -days 365 -newkey rsa:2048 -keyout /etc/apache2/ssl/apache.key -out /etc/apache2/ssl/apache.crt
```

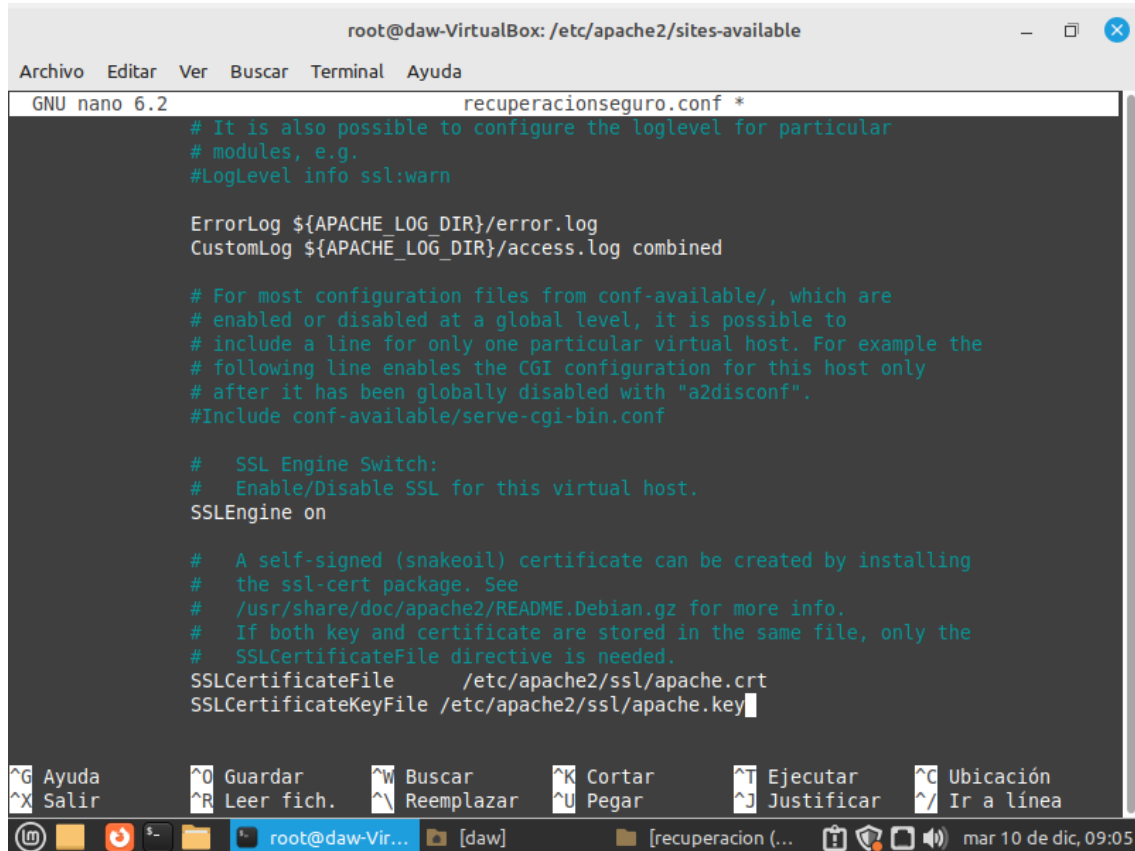
You are about to be asked to enter information that will be incorporated  
into your certificate request.  
What you are about to enter is what is called a Distinguished Name or a DN.  
There are quite a few fields but you can leave some blank  
For some fields there will be a default value,  
If you enter '.', the field will be left blank.

-----  
Country Name (2 letter code) [AU]:ES  
State or Province Name (full name) [Some-State]:Murcia  
Locality Name (eg, city) []:Mula  
Organization Name (eg, company) [Internet Widgits Pty Ltd]:IDAW  
Organizational Unit Name (eg, section) []:ExamenRecuperacion  
Common Name (e.g. server FQDN or YOUR name) []:Alvaro

root@daw-Vir... [daw] [recuperacion (...)] mar 10 de dic, 09:03

[illegible]

Configuramos las directivas del host virtual.



```
root@daw-VirtualBox: /etc/apache2/sites-available
Archivo  Editar  Ver  Buscar  Terminal  Ayuda
GNU nano 6.2 recuperacionseguro.conf *
# It is also possible to configure the loglevel for particular
# modules, e.g.
#LogLevel info ssl:warn

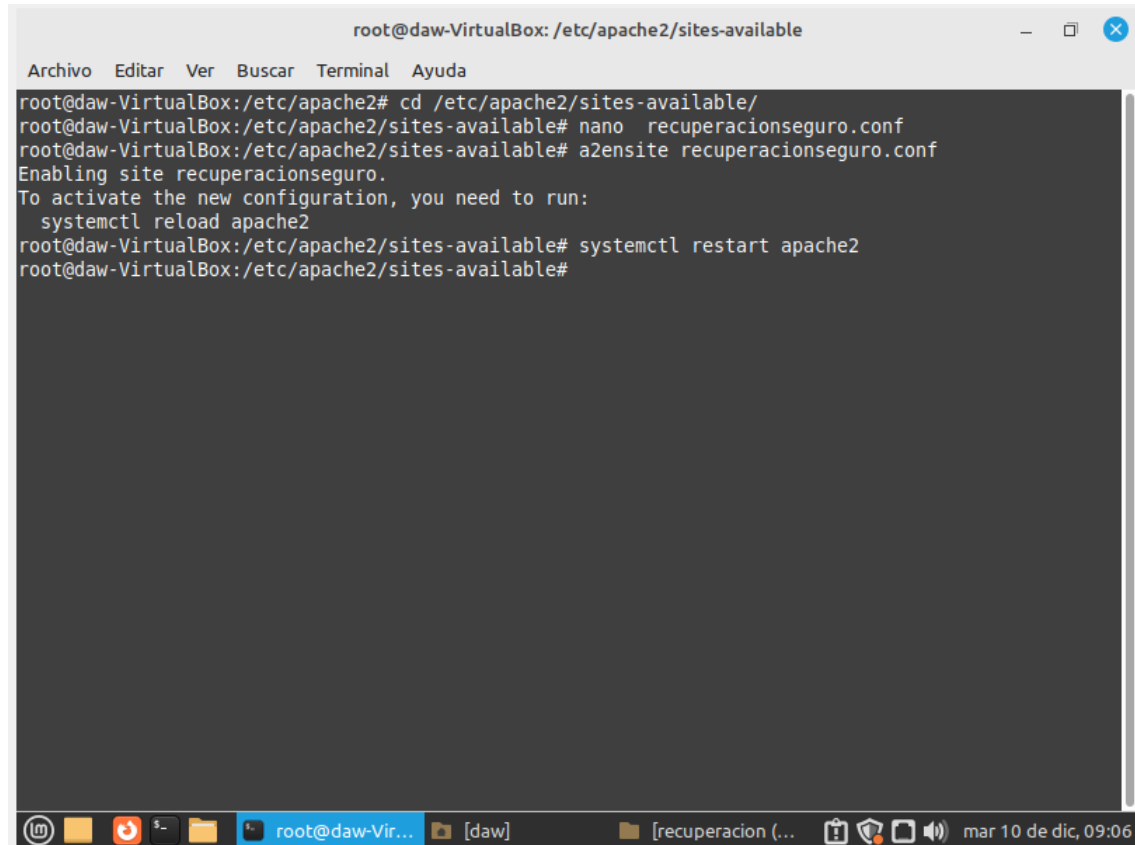
ErrorLog ${APACHE_LOG_DIR}/error.log
CustomLog ${APACHE_LOG_DIR}/access.log combined

# For most configuration files from conf-available/, which are
# enabled or disabled at a global level, it is possible to
# include a line for only one particular virtual host. For example the
# following line enables the CGI configuration for this host only
# after it has been globally disabled with "a2disconf".
#Include conf-available/serve-cgi-bin.conf

#   SSL Engine Switch:
#   Enable/Disable SSL for this virtual host.
SSLEngine on

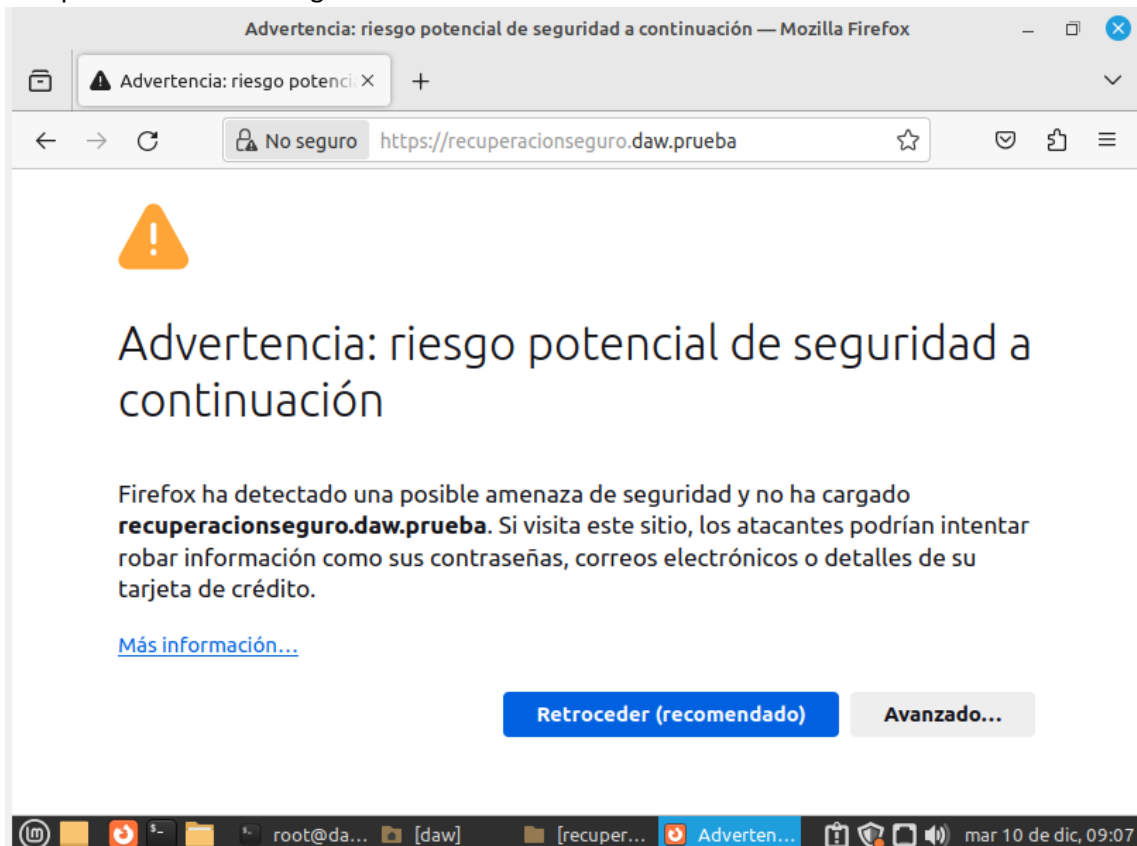
#   A self-signed (snakeoil) certificate can be created by installing
#   the ssl-cert package. See
#   /usr/share/doc/apache2/README.Debian.gz for more info.
#   If both key and certificate are stored in the same file, only the
#   SSLCertificateFile directive is needed.
SSLCertificateFile      /etc/apache2/ssl/apache.crt
SSLCertificateKeyFile   /etc/apache2/ssl/apache.key
```

Habilitamos el sitio seguro y reiniciamos apache.

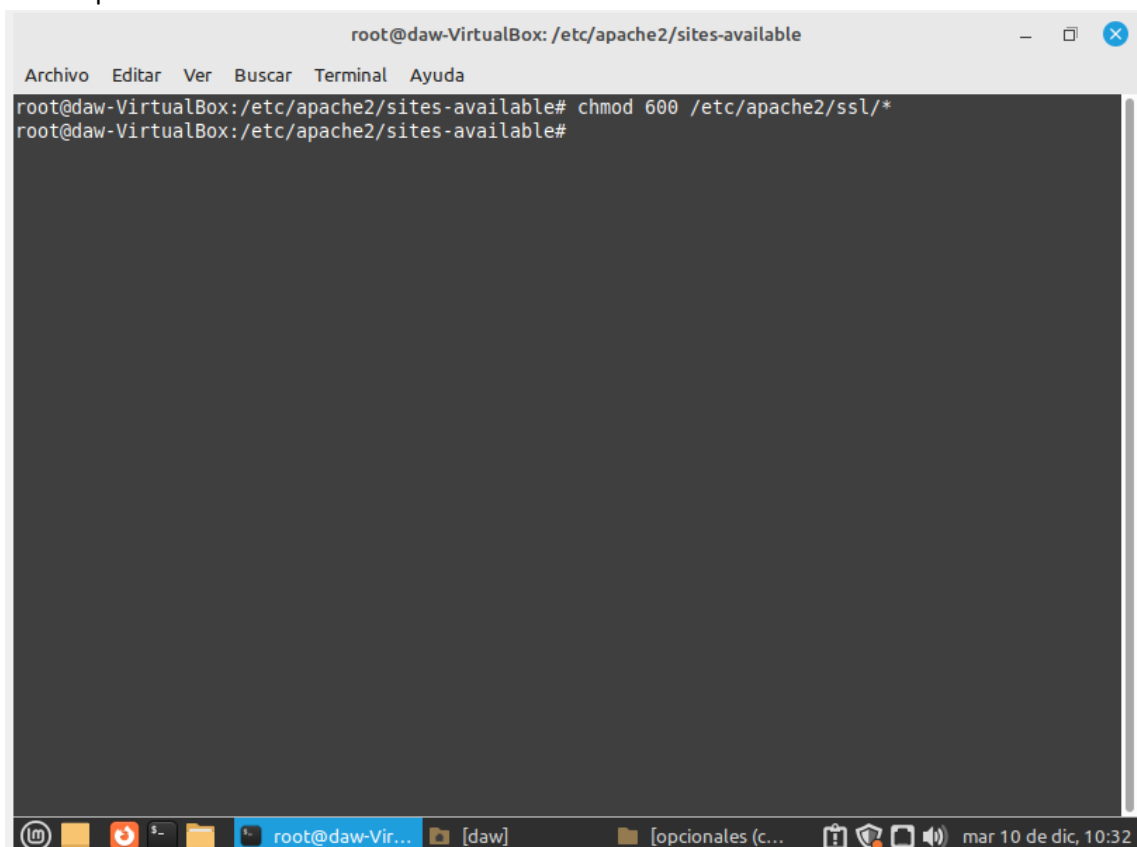


```
root@daw-VirtualBox: /etc/apache2/sites-available
Archivo  Editar  Ver  Buscar  Terminal  Ayuda
root@daw-VirtualBox:/etc/apache2# cd /etc/apache2/sites-available/
root@daw-VirtualBox:/etc/apache2/sites-available# nano recuperacionseguro.conf
root@daw-VirtualBox:/etc/apache2/sites-available# a2ensite recuperacionseguro.conf
Enabling site recuperacionseguro.
To activate the new configuration, you need to run:
  systemctl reload apache2
root@daw-VirtualBox:/etc/apache2/sites-available# systemctl restart apache2
root@daw-VirtualBox:/etc/apache2/sites-available#
```

Comprobamos en el navegador.

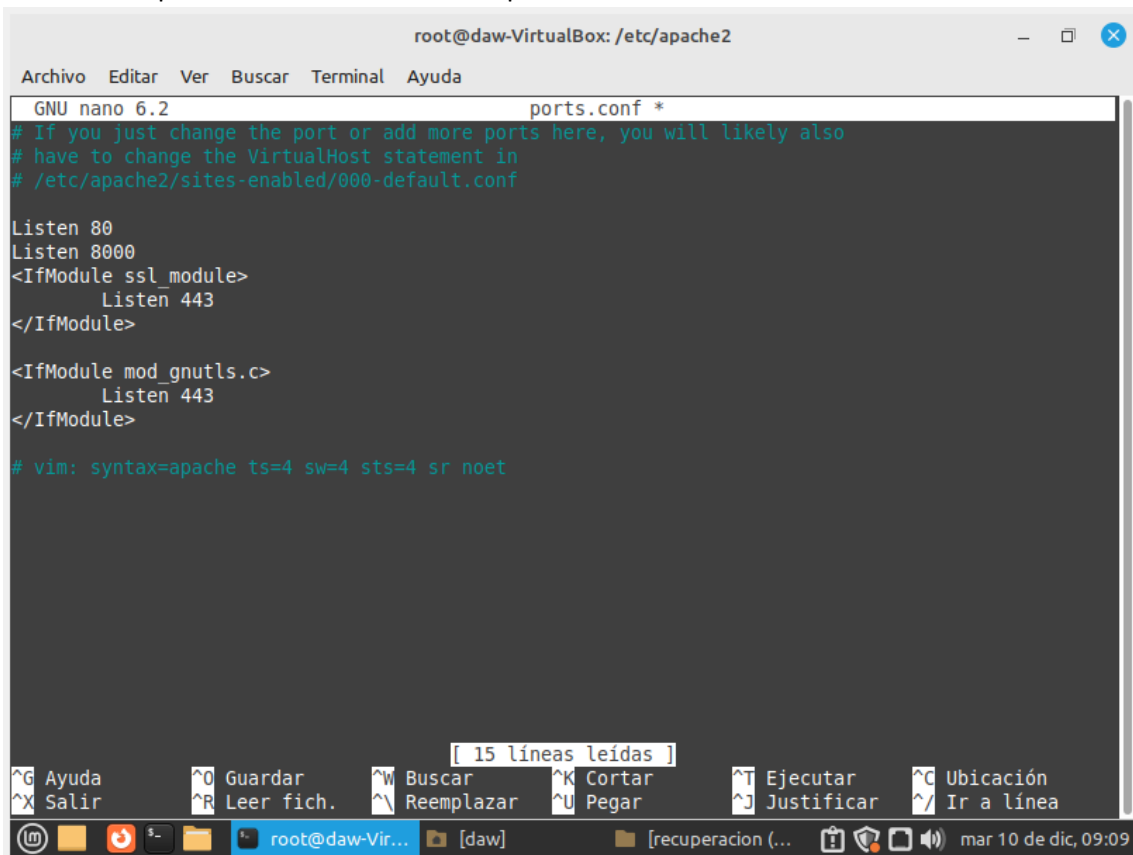


Damos permisos necesarios.



3.

Añadimos el puerto 8000 en el archivo de ports.



```
root@daw-VirtualBox: /etc/apache2
GNU nano 6.2 ports.conf *
# If you just change the port or add more ports here, you will likely also
# have to change the VirtualHost statement in
# /etc/apache2/sites-enabled/000-default.conf

Listen 80
Listen 8000
<IfModule ssl_module>
    Listen 443
</IfModule>

<IfModule mod_gnutls.c>
    Listen 443
</IfModule>

# vim: syntax=apache ts=4 sw=4 sts=4 sr noet

[ 15 líneas leídas ]
^G Ayuda      ^O Guardar    ^W Buscar    ^K Cortar    ^T Ejecutar   ^C Ubicación
^X Salir      ^R Leer fich. ^_ Reemplazar ^U Pegar      ^J Justificar ^_ Ir a línea
root@daw-Vir... [daw] [recuperacion (...)] mar 10 de dic, 09:09
```

Configuramos el puerto al 8000 en el archivo de practicas.

```
root@daw-VirtualBox: /etc/apache2/sites-available
Archivo  Editar  Ver  Buscar  Terminal  Ayuda
GNU nano 6.2 practicas.conf *
<VirtualHost practicas.daw.prueba:8000>
# 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 practicas.daw.prueba
ServerAdmin webmaster@localhost
DocumentRoot /var/www/practicas

# 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

ErrorLog ${APACHE_LOG_DIR}/error.log
CustomLog ${APACHE_LOG_DIR}/access.log combined

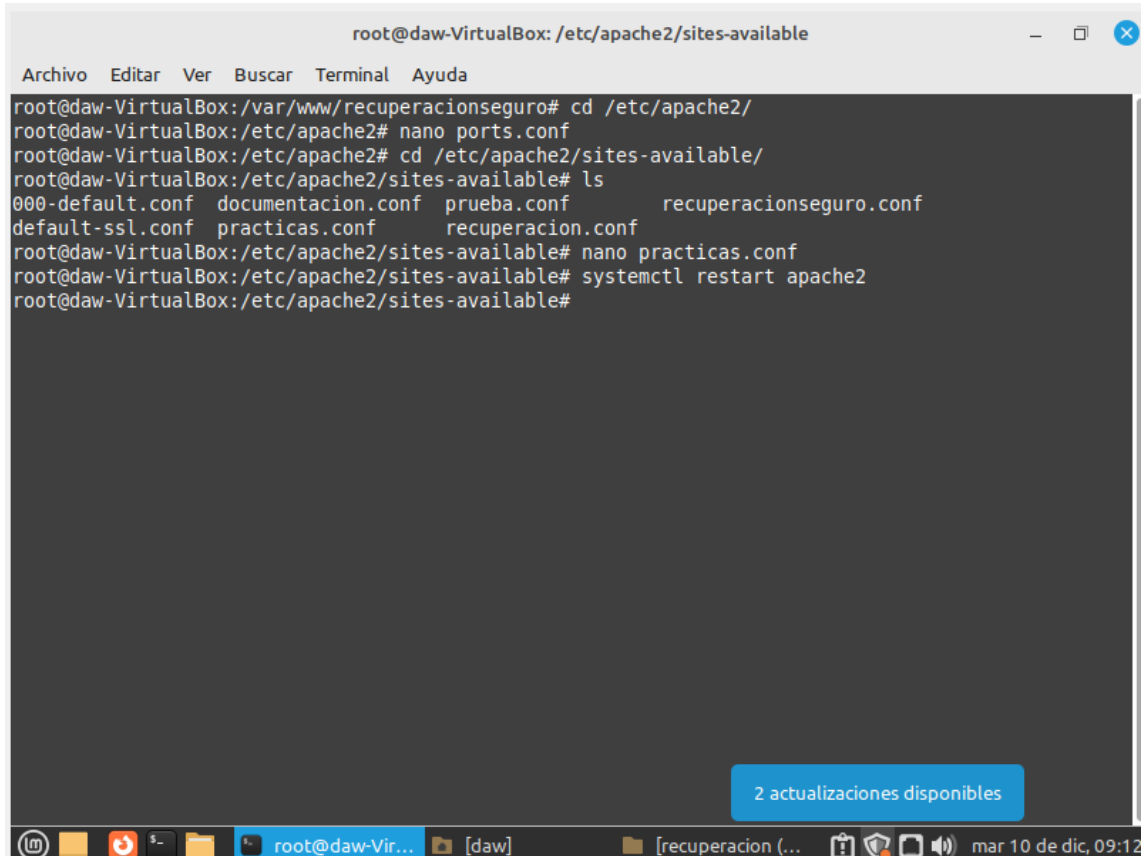
# For most configuration files from conf-available/, which are
# enabled or disabled at a global level, it is possible to
# include a line for only one particular virtual host. For example the
# following line enables the CGI configuration for this host only

```

Probamos que funcione en el navegador.



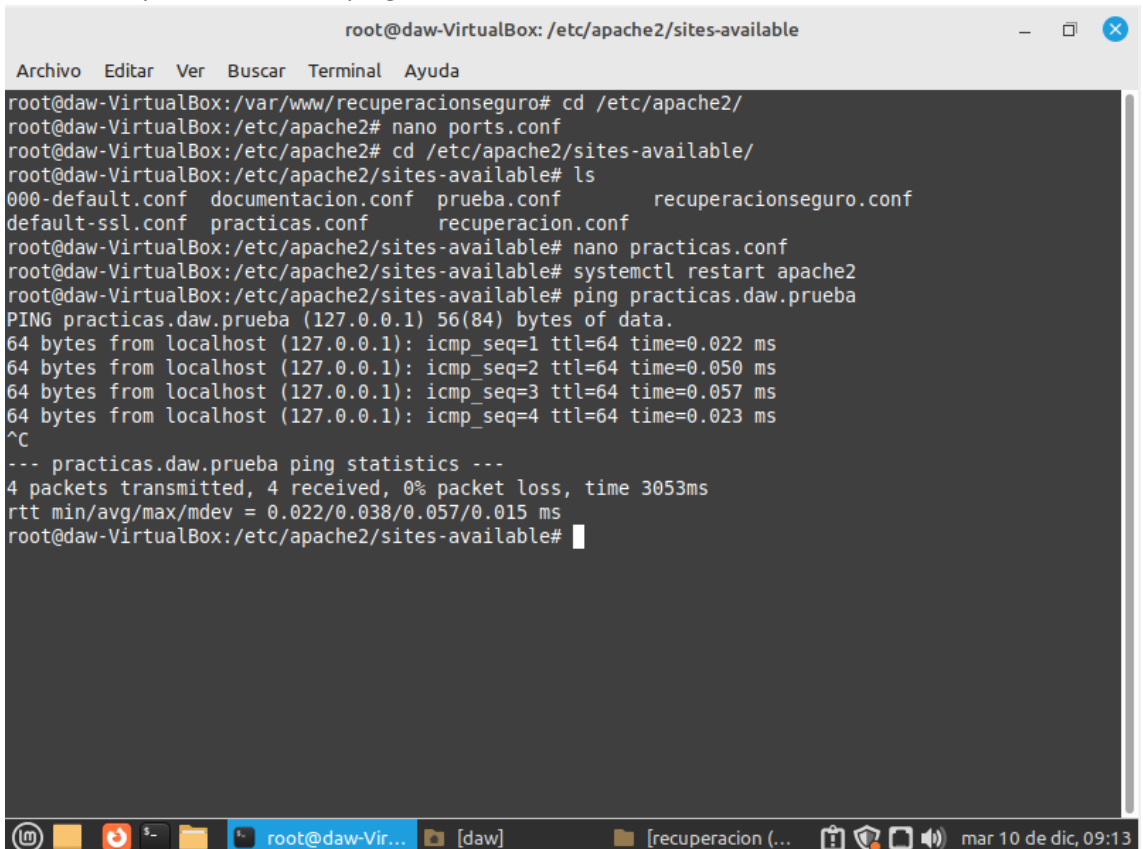
Reiniciamos apache.



```
root@daw-VirtualBox: /etc/apache2/sites-available
Archivo  Editar  Ver  Buscar  Terminal  Ayuda
root@daw-VirtualBox:/var/www/recuperacionseguro# cd /etc/apache2/
root@daw-VirtualBox:/etc/apache2# nano ports.conf
root@daw-VirtualBox:/etc/apache2# cd /etc/apache2/sites-available/
root@daw-VirtualBox:/etc/apache2/sites-available# ls
000-default.conf  documentacion.conf  prueba.conf          recuperacionseguro.conf
default-ssl.conf  practicas.conf      recuperacion.conf
root@daw-VirtualBox:/etc/apache2/sites-available# nano practicas.conf
root@daw-VirtualBox:/etc/apache2/sites-available# systemctl restart apache2
root@daw-VirtualBox:/etc/apache2/sites-available#
```

2 actualizaciones disponibles

Probamos que funcione con ping.



```
root@daw-VirtualBox: /etc/apache2/sites-available
Archivo  Editar  Ver  Buscar  Terminal  Ayuda
root@daw-VirtualBox:/var/www/recuperacionseguro# cd /etc/apache2/
root@daw-VirtualBox:/etc/apache2# nano ports.conf
root@daw-VirtualBox:/etc/apache2# cd /etc/apache2/sites-available/
root@daw-VirtualBox:/etc/apache2/sites-available# ls
000-default.conf  documentacion.conf  prueba.conf          recuperacionseguro.conf
default-ssl.conf  practicas.conf      recuperacion.conf
root@daw-VirtualBox:/etc/apache2/sites-available# nano practicas.conf
root@daw-VirtualBox:/etc/apache2/sites-available# systemctl restart apache2
root@daw-VirtualBox:/etc/apache2/sites-available# ping practicas.daw.prueba
PING practicas.daw.prueba (127.0.0.1) 56(84) bytes of data.
64 bytes from localhost (127.0.0.1): icmp_seq=1 ttl=64 time=0.022 ms
64 bytes from localhost (127.0.0.1): icmp_seq=2 ttl=64 time=0.050 ms
64 bytes from localhost (127.0.0.1): icmp_seq=3 ttl=64 time=0.057 ms
64 bytes from localhost (127.0.0.1): icmp_seq=4 ttl=64 time=0.023 ms
^C
--- practicas.daw.prueba ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3053ms
rtt min/avg/max/mdev = 0.022/0.038/0.057/0.015 ms
root@daw-VirtualBox:/etc/apache2/sites-available#
```

4. Hecho en la cara posterior del examen.

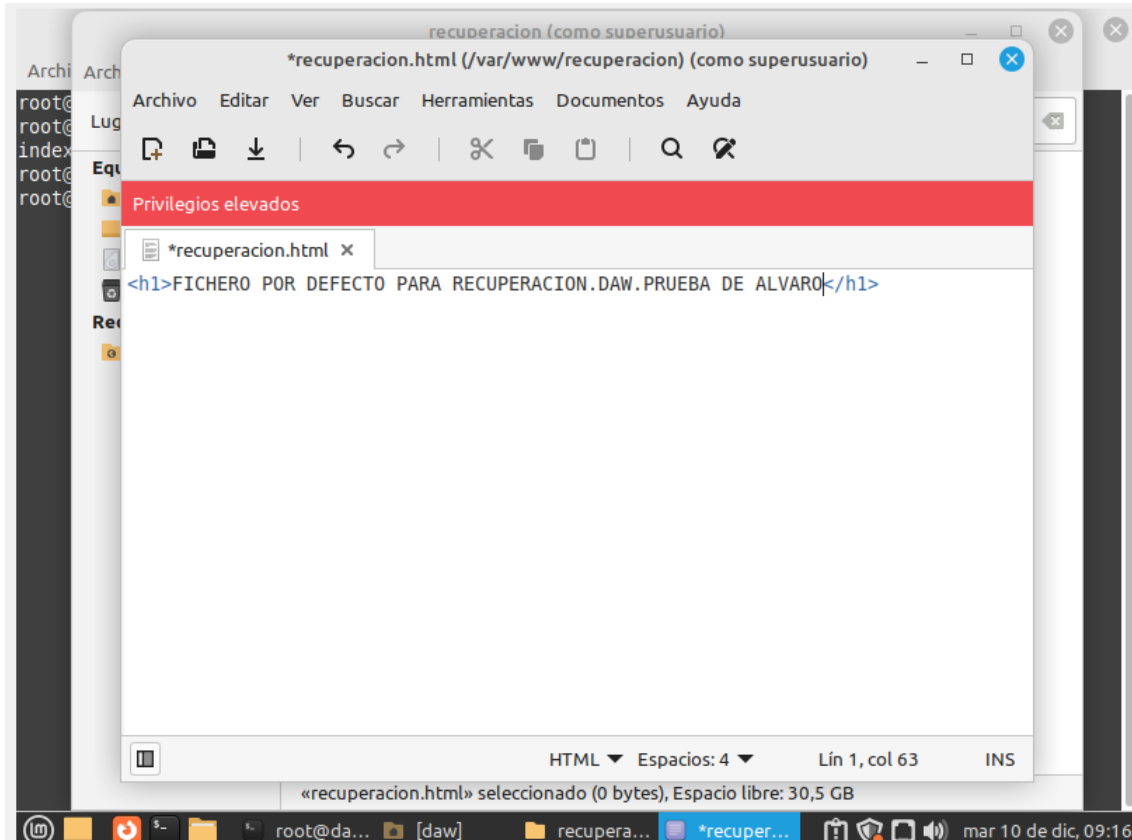
5.

Creamos el archivo por defecto en la carpeta correspondiente.

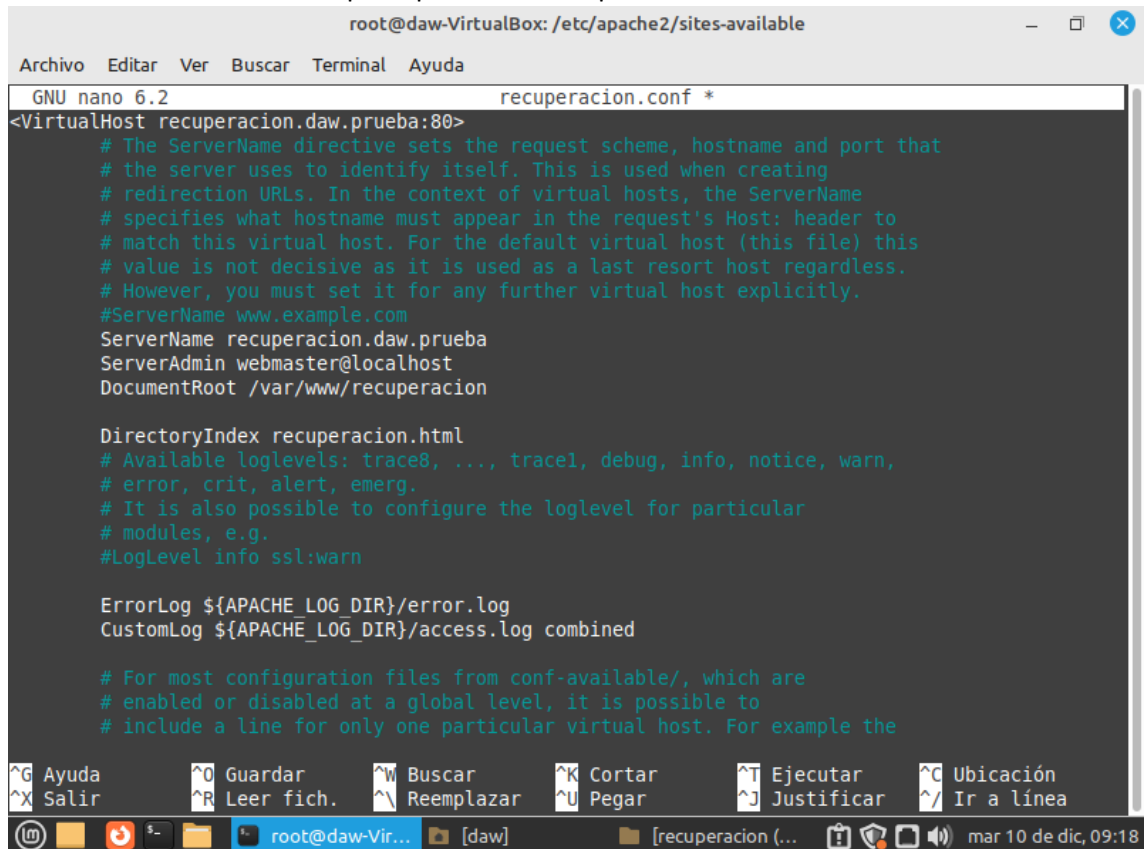
```
root@daw-VirtualBox: /var/www/recuperacion
Archivo  Editar  Ver  Buscar  Terminal  Ayuda
root@daw-VirtualBox:/etc/apache2/sites-available# cd /var/www/recuperacion
root@daw-VirtualBox:/var/www/recuperacion# ls
index.html
root@daw-VirtualBox:/var/www/recuperacion# touch recuperacion.html
root@daw-VirtualBox:/var/www/recuperacion#
```



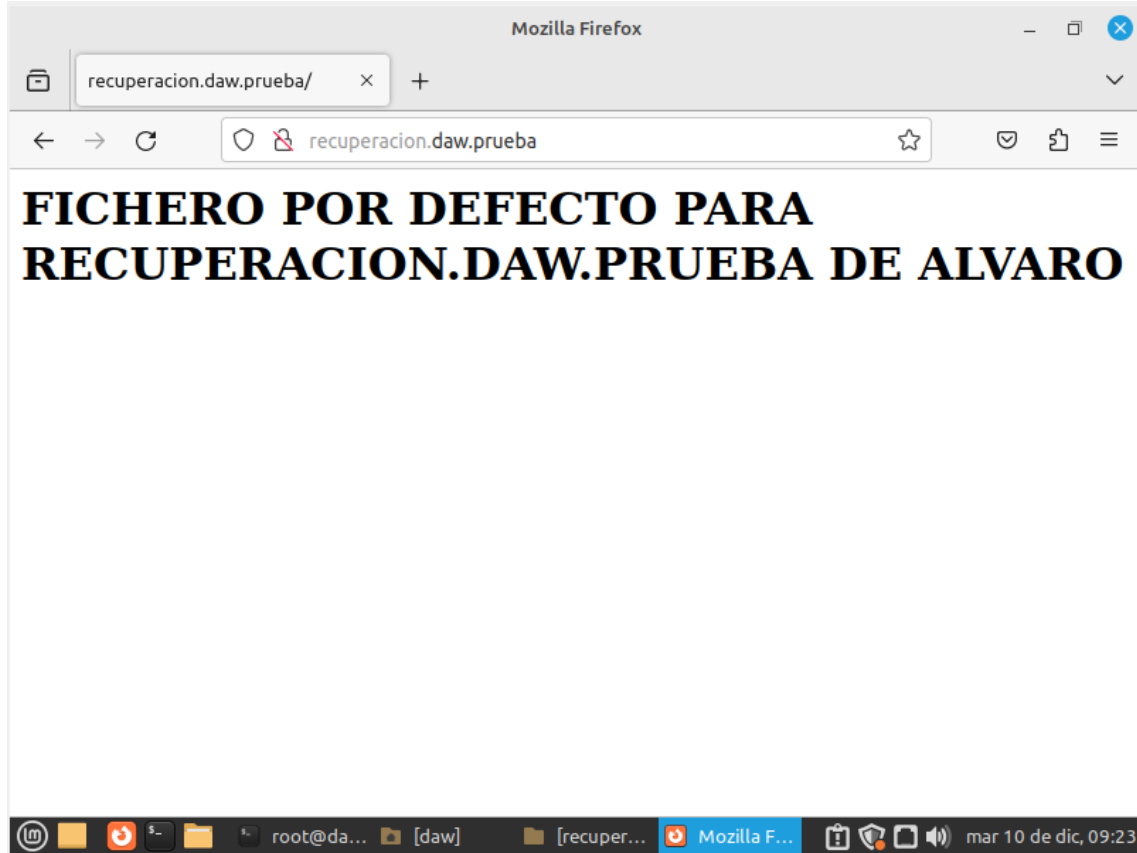
Editamos ese archivo para que se muestre el siguiente mensaje.



Añadimos la línea necesaria para que se muestre por defecto.

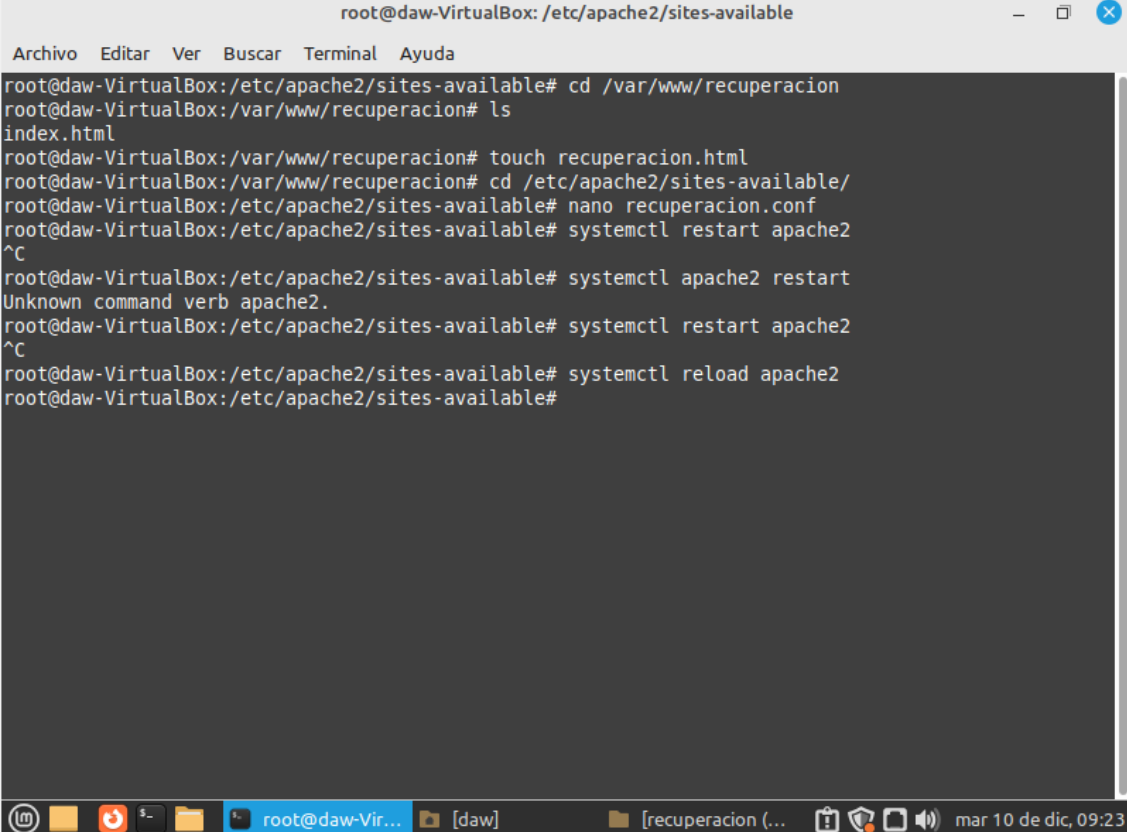


Lo comprobamos en el navegador.



Reiniciamos apache, este paso va antes que el anterior.

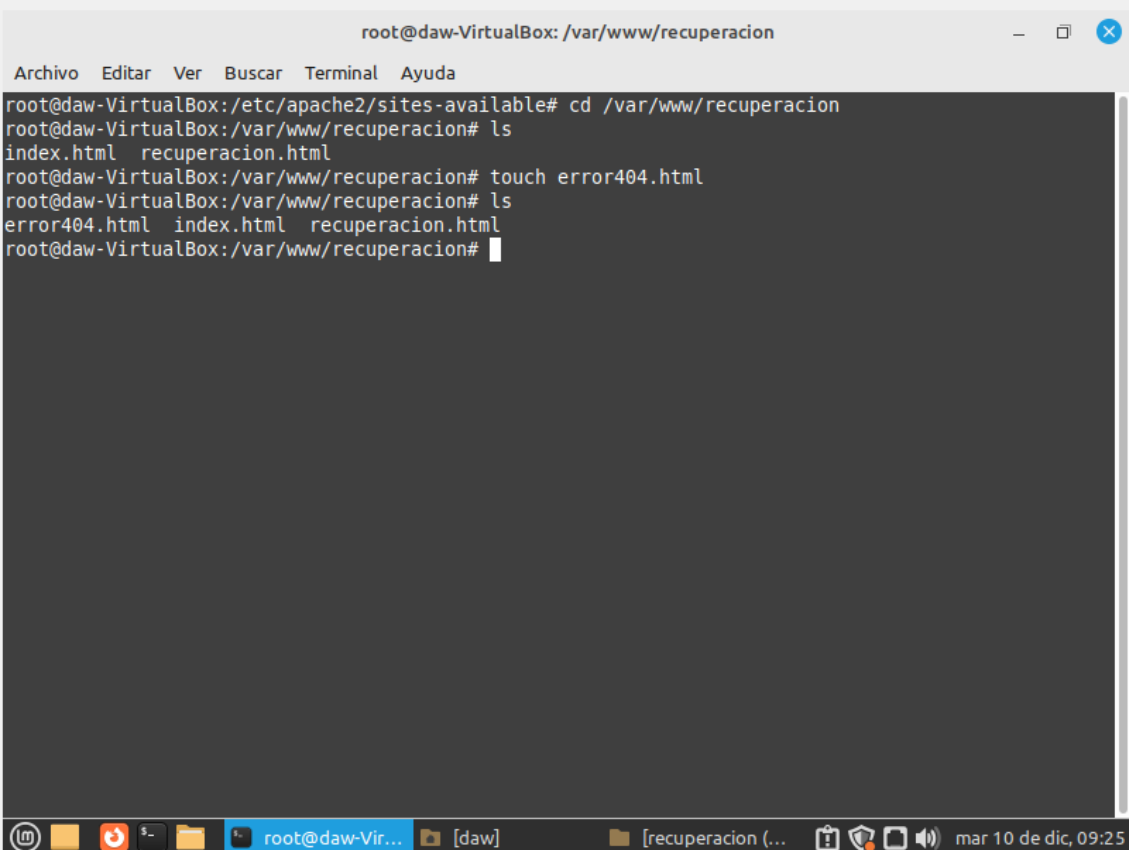
```
root@daw-VirtualBox: /etc/apache2/sites-available
Archivo  Editar  Ver  Buscar  Terminal  Ayuda
root@daw-VirtualBox:/etc/apache2/sites-available# cd /var/www/recuperacion
root@daw-VirtualBox:/var/www/recuperacion# ls
index.html
root@daw-VirtualBox:/var/www/recuperacion# touch recuperacion.html
root@daw-VirtualBox:/var/www/recuperacion# cd /etc/apache2/sites-available/
root@daw-VirtualBox:/etc/apache2/sites-available# nano recuperacion.conf
root@daw-VirtualBox:/etc/apache2/sites-available# systemctl restart apache2
^C
root@daw-VirtualBox:/etc/apache2/sites-available# systemctl apache2 restart
Unknown command verb apache2.
root@daw-VirtualBox:/etc/apache2/sites-available# systemctl restart apache2
^C
root@daw-VirtualBox:/etc/apache2/sites-available# systemctl reload apache2
root@daw-VirtualBox:/etc/apache2/sites-available#
```



The terminal window shows the user's actions in a Linux environment. The user is in the directory /etc/apache2/sites-available. They navigate to /var/www/recuperacion, list the files (showing index.html), and create a new file named recuperacion.html. They then navigate back to /etc/apache2/sites-available and use nano to edit recuperacion.conf. Finally, they attempt to restart Apache2 using systemctl restart apache2. The first attempt fails with the error 'Unknown command verb apache2.'. The user then tries systemctl restart apache2, which also fails with the same error. Finally, they use systemctl reload apache2, which appears to succeed.

6.

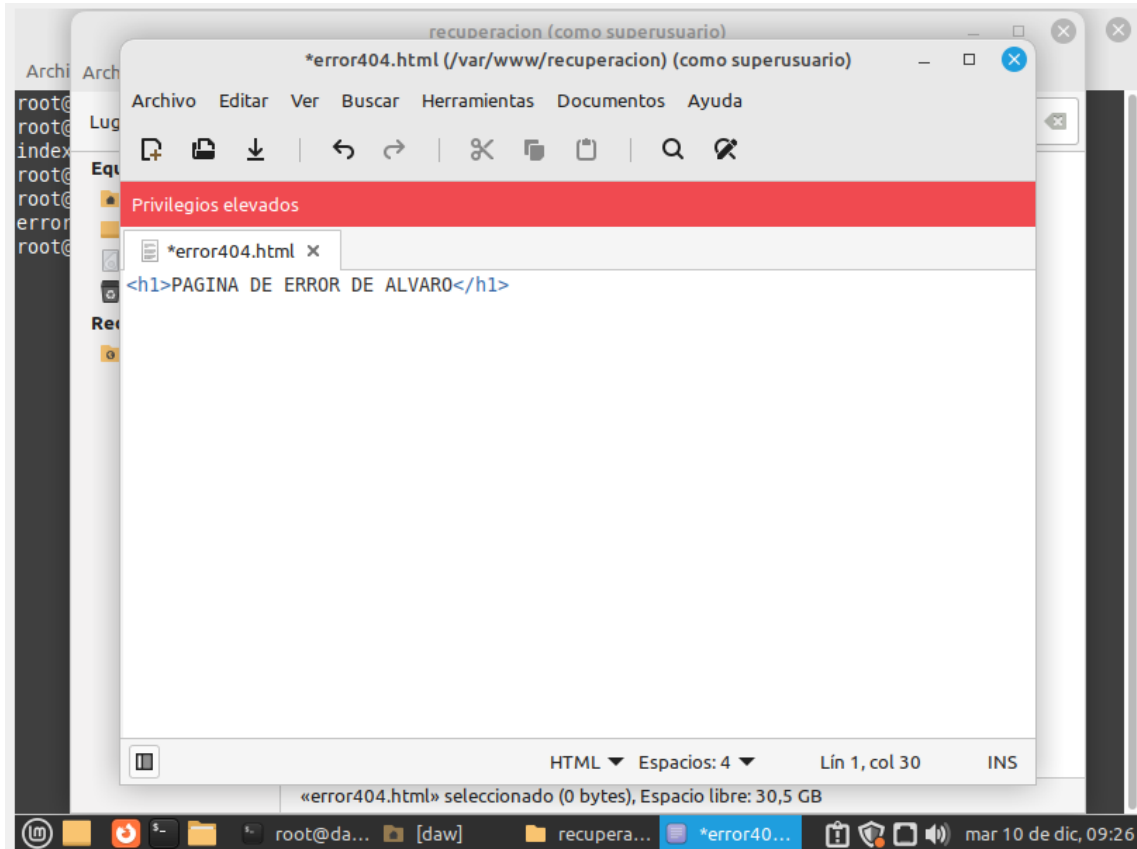
Creamos el fichero de error.



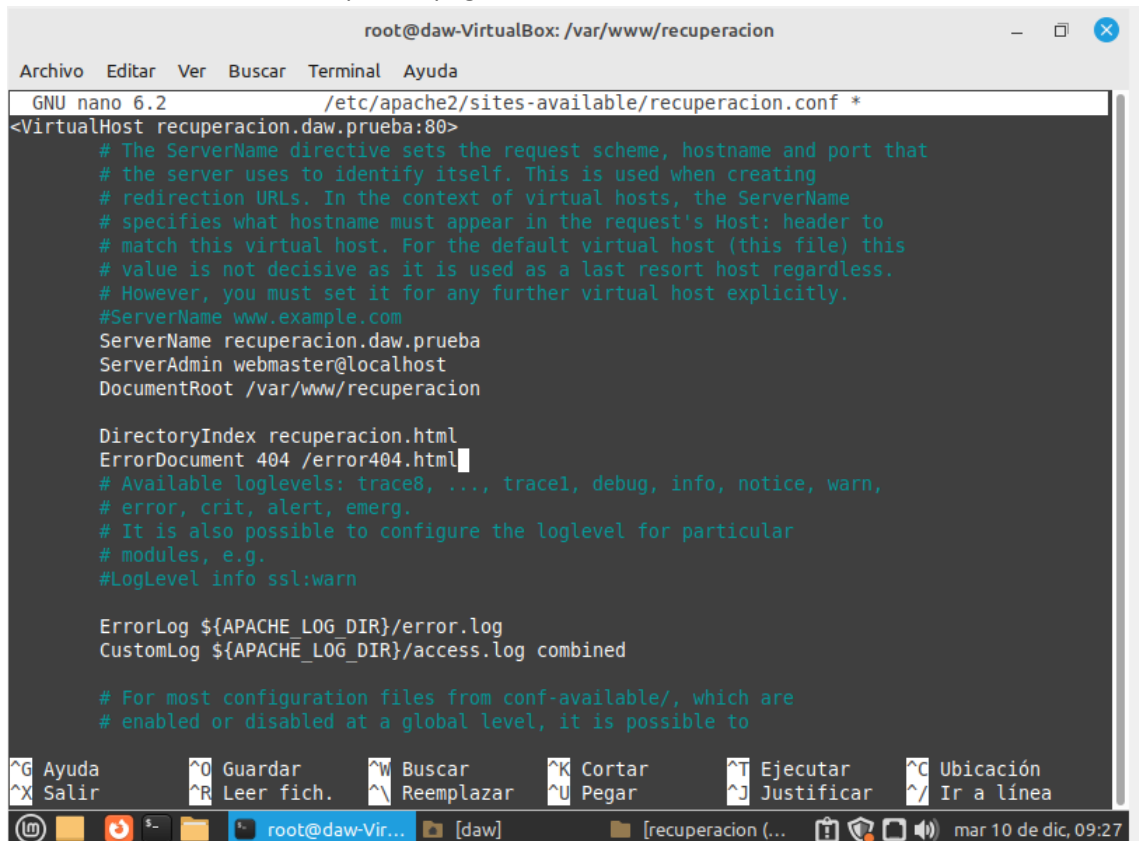
```
root@daw-VirtualBox: /var/www/recuperacion
Archivo  Editar  Ver  Buscar  Terminal  Ayuda
root@daw-VirtualBox:/etc/apache2/sites-available# cd /var/www/recuperacion
root@daw-VirtualBox:/var/www/recuperacion# ls
index.html  recuperacion.html
root@daw-VirtualBox:/var/www/recuperacion# touch error404.html
root@daw-VirtualBox:/var/www/recuperacion# ls
error404.html  index.html  recuperacion.html
root@daw-VirtualBox:/var/www/recuperacion#
```

The screenshot shows a terminal window titled 'root@daw-VirtualBox: /var/www/recuperacion'. The window has a menu bar with 'Archivo', 'Editar', 'Ver', 'Buscar', 'Terminal', and 'Ayuda'. The terminal content shows the user navigating to the directory /var/www/recuperacion and listing its contents, which are index.html and recuperacion.html. Then, the user runs the command 'touch error404.html' to create a new file. A subsequent 'ls' command shows the updated directory contents: error404.html, index.html, and recuperacion.html. The terminal window is part of a desktop environment with a taskbar at the bottom showing various icons and the system date/time: 'mar 10 de dic, 09:25'.

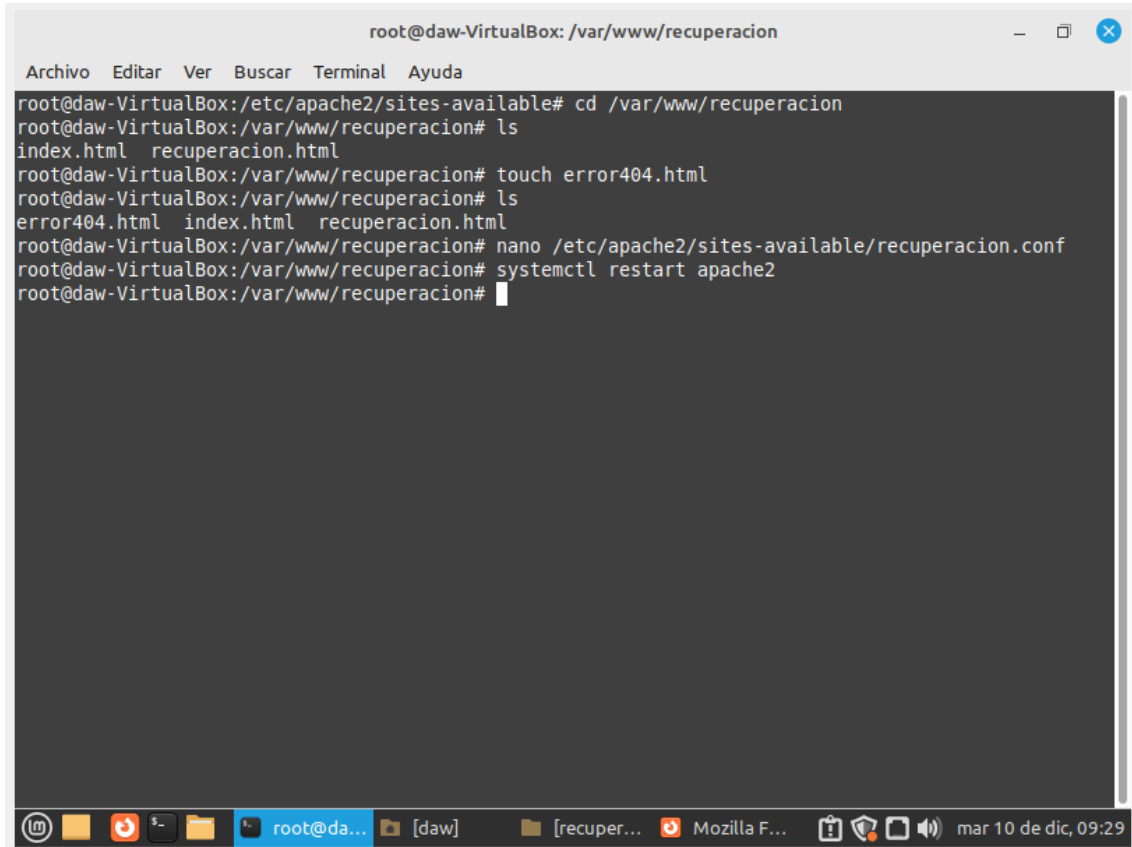
Editamos ese fichero con el siguiente mensaje.



Añadimos la línea necesaria para la página de error.

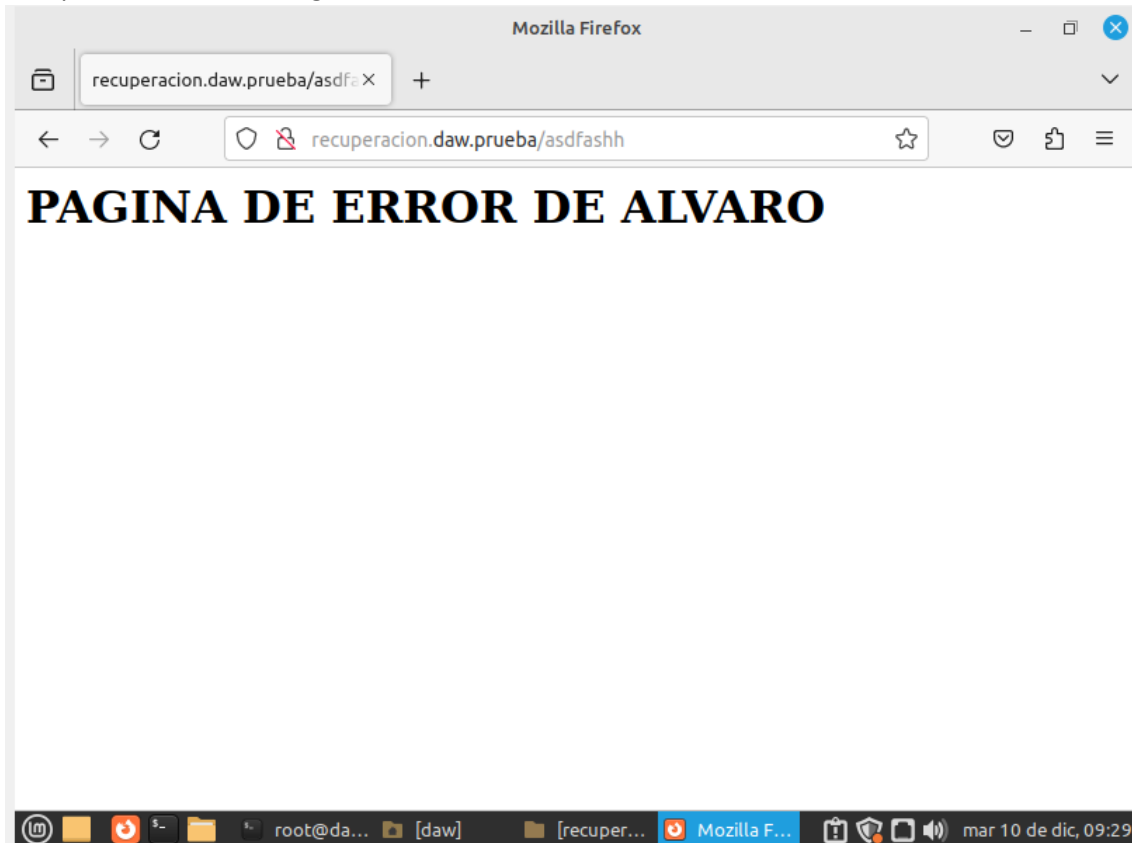


Reiniciamos apache.



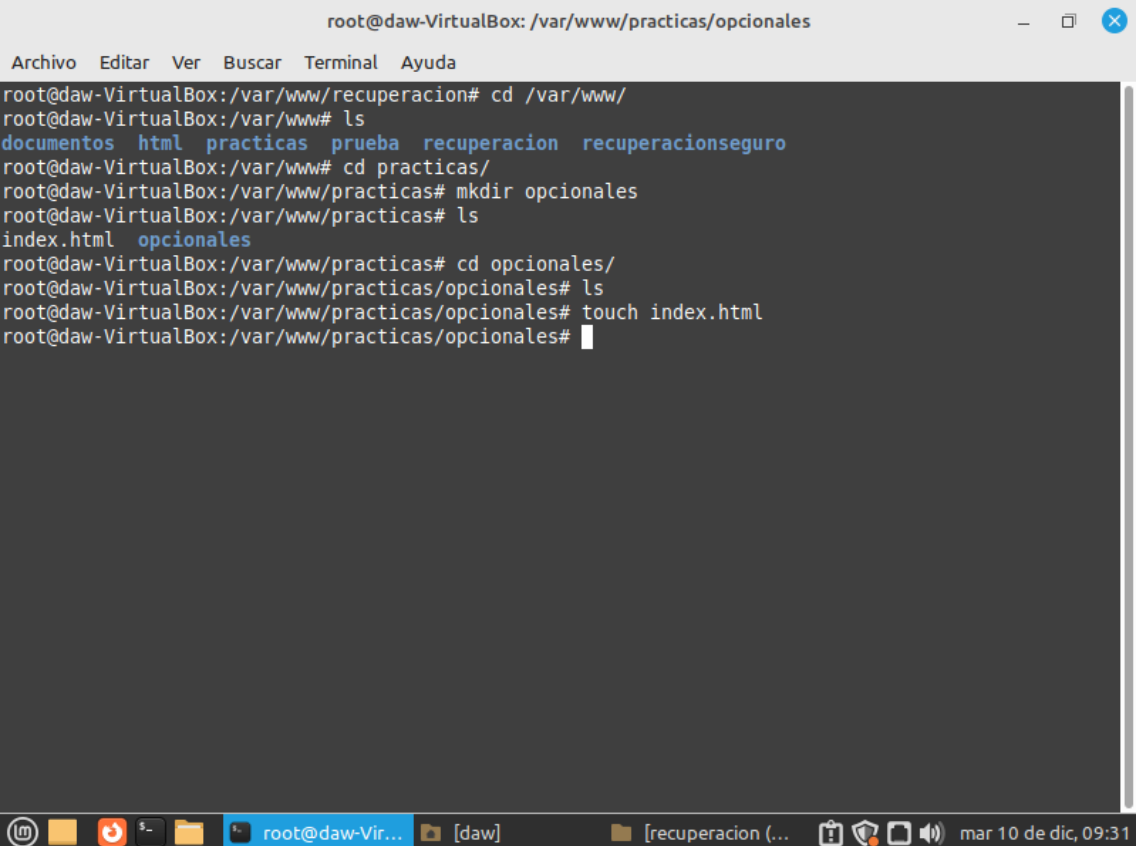
```
root@daw-VirtualBox: /var/www/recuperacion
Archivo  Editar  Ver  Buscar  Terminal  Ayuda
root@daw-VirtualBox:/etc/apache2/sites-available# cd /var/www/recuperacion
root@daw-VirtualBox:/var/www/recuperacion# ls
index.html  recuperacion.html
root@daw-VirtualBox:/var/www/recuperacion# touch error404.html
root@daw-VirtualBox:/var/www/recuperacion# ls
error404.html  index.html  recuperacion.html
root@daw-VirtualBox:/var/www/recuperacion# nano /etc/apache2/sites-available/recuperacion.conf
root@daw-VirtualBox:/var/www/recuperacion# systemctl restart apache2
root@daw-VirtualBox:/var/www/recuperacion#
```

Comprobamos en el navegador.



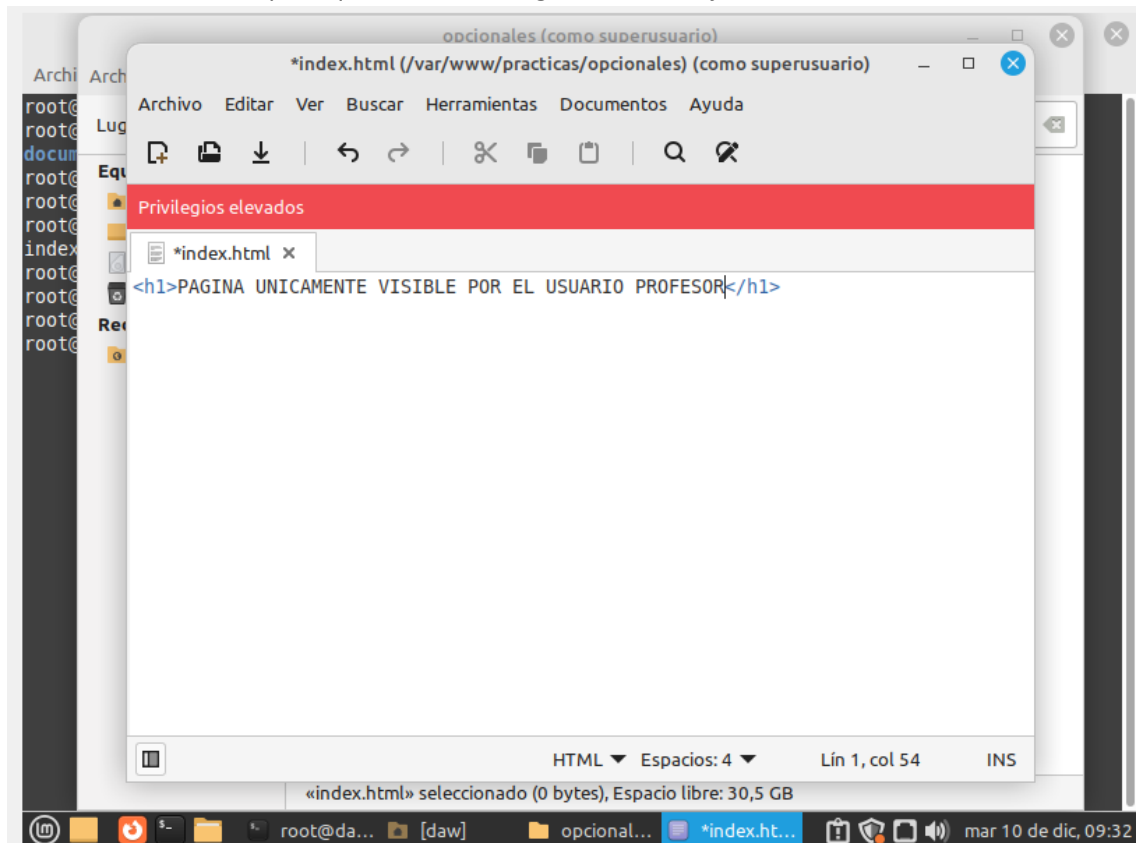
7.

Creamos la carpeta opcionales y un archivo dentro de ella.



```
root@daw-VirtualBox: /var/www/practicas/opcionales
Archivo Editar Ver Buscar Terminal Ayuda
root@daw-VirtualBox:/var/www/recuperacion# cd /var/www/
root@daw-VirtualBox:/var/www# ls
documentos html practicas prueba recuperacion recuperacionseguro
root@daw-VirtualBox:/var/www# cd practicas/
root@daw-VirtualBox:/var/www/practicas# mkdir opcionales
root@daw-VirtualBox:/var/www/practicas# ls
index.html opcionales
root@daw-VirtualBox:/var/www/practicas# cd opcionales/
root@daw-VirtualBox:/var/www/practicas/opcionales# ls
root@daw-VirtualBox:/var/www/practicas/opcionales# touch index.html
root@daw-VirtualBox:/var/www/practicas/opcionales#
```

Editamos ese archivo para que muestre el siguiente mensaje.





Creamos el fichero de contraseñas, el usuario y, le damos una contraseña.

```
root@daw-VirtualBox: /etc/apache2
Archivo Editar Ver Buscar Terminal Ayuda
root@daw-VirtualBox:/etc/apache2/sites-available# htpasswd -c /etc/apache2/password/ profesor
htpasswd: cannot create file /etc/apache2/password/
root@daw-VirtualBox:/etc/apache2/sites-available# htpasswd -c /etc/apache2/password/ profesor
htpasswd: cannot create file /etc/apache2/password/
root@daw-VirtualBox:/etc/apache2/sites-available# htpasswd -c /etc/apache2/password profesor
htpasswd: cannot create file /etc/apache2/password
root@daw-VirtualBox:/etc/apache2/sites-available# cd /etc/apache2
root@daw-VirtualBox:/etc/apache2# ls
apache2.conf  conf-enabled  magic          mods-enabled  ports.conf    sites-enabled
conf-available  envvars      mods-available password       sites-available  ssl
root@daw-VirtualBox:/etc/apache2# htpasswd -c /etc/apache2/passwd profesor
New password:
Re-type new password:
Adding password for user profesor
root@daw-VirtualBox:/etc/apache2#
```

Configuramos el archivo practicas para el acceso autenticado con la línea Directory.

```
root@daw-VirtualBox: /etc/apache2/sites-available
Archivo Editar Ver Buscar Terminal Ayuda
GNU nano 6.2 practicas.conf *
# 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

ErrorLog ${APACHE_LOG_DIR}/error.log
CustomLog ${APACHE_LOG_DIR}/access.log combined

# For most configuration files from conf-available/, which are
# enabled or disabled at a global level, it is possible to
# include a line for only one particular virtual host. For example the
# following line enables the CGI configuration for this host only
# after it has been globally disabled with "a2disconf".
#Include conf-available/serve-cgi-bin.conf
<Directory /var/www/practicas/opcionales/>
AuthType basic
AuthName "Página privada solo para profesores"
AuthUserFile /etc/apache2/passwd
Require user profesor
</Directory>
</VirtualHost>

# vim: syntax=apache ts=4 sw=4 sts=4 sr noet

^G Ayuda      ^O Guardar    ^W Buscar     ^K Cortar     ^T Ejecutar   ^C Ubicación
^X Salir      ^R Leer fich. ^N Reemplazar ^U Pegar      ^J Justificar ^_ Ir a línea
```

Lo comprobamos en el navegador.

