Ejercicio

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Configuración

1. Dar de alta el siguiente sitio: www.paginapersonal.unam.mx

```
etc /etc/apache2/sites-available
cp 000-default.conf paginapersonal.conf
nano paginapersonal.conf
```

Modificar el ServerName

```
ServerName www.paginapersonal.unam.mx
```

Agregar o modificar las líneas del paso 2 y 3

```
root@lubuntu:~# cd /etc/apache2/sites-available/
root@lubuntu:/etc/apache2/sites-available# cp 000-default.conf paginapersonal.conf
root@lubuntu:/etc/apache2/sites-available# nano paginapersonal.conf
```

```
ServerName www.paginapersonal.unam.mx
```

2. DocumentRoot en `/var/www/personal`

```
DocumentRoot /var/www/personal
<Directory /var/www/personal>
    Options -Indexes -FollowSymLinks +MultiViews
    AllowOverride None
    Require all granted
 </Directory>
```

```
DocumentRoot /var/www/personal
<Directory /var/www/personal>
        Options -Indexes -FollowSymLinks +MultiViews
        AllowOverride None
        Require all granted
</Directory>
```

3. Configurar bitácora error y access propias para el VH

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

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

4. Remover la firma del servidor y del encabezado

```
cd
nano /etc/apache2/apache2.conf
```

Agregar las siguientes dos líneas

```
ServerTokens ProductOnly
ServerSignature off
```

```
root@lubuntu:~# cd
root@lubuntu:~# nano /etc/apache2/apache2.conf
```

```
ServerTokens ProductOnly
ServerSignature off
```

5. Configurar un mensaje de error génerico en error.html para los códigos de estado más comunes

```
echo "<h1>Oops! Something went wrong...</h1>" | sudo tee /var/www/personal/error.html
```

```
nano /etc/apache2/sites-available/
```

Agregar las siguiente líneas

```
ErrorDocument 404 /error.html
ErrorDocument 500 /error.html
ErrorDocument 403 /error.html
ErrorDocument 401 /error.html
```

```
root@lubuntu:~# mkdir /var/www/personal
root@lubuntu:~# echo "<h1>Oops! Something went wrong...</h1>" | sudo tee /var/www/personal/error.html
<h1>Oops! Something went wrong...</h1>
```

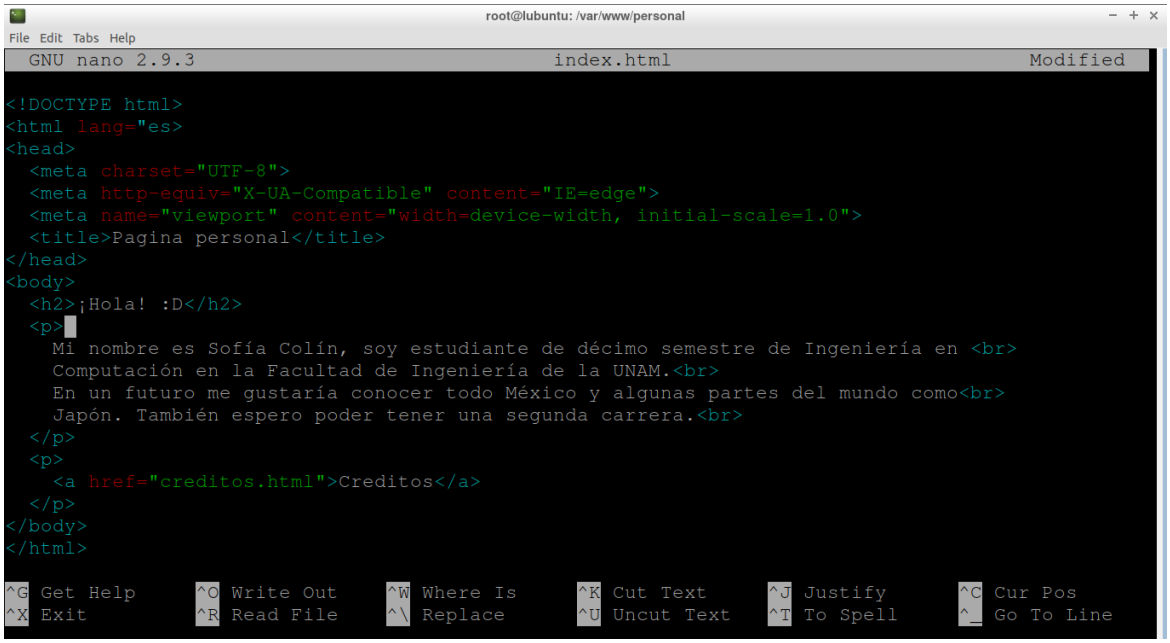
```
ErrorDocument 404 /error.html
ErrorDocument 500 /error.html
ErrorDocument 403 /error.html
ErrorDocument 401 /error.html
```

6. Incluir el index.html: presentación personal (nombre, carrera, hobbies, planes a futuro: viajar, conciertos, etc.)

index.html

```
<!DOCTYPE html>
<html lang="es>
<head>
  <meta charset="UTF-8">
  <meta http-equiv="Content-Type" content="text/html; charset=utf-8"/>
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Pagina personal</title>
</head>
<body>
  <h2>¡Hola! :D</h2>
  <p>
    Mi nombre es Sofía Colín, soy estudiante de décimo semestre de Ingeniería en <br>
```

```
    Computación en la Facultad de Ingeniería de la UNAM.<br>
    En un futuro me gustaría conocer todo México y algunas partes del mundo como<br>
    Japón. También espero poder tener una segunda carrera.<br>
  </p>
  <p>
    <a href="creditos.html">Créditos</a>
  </p>
</body>
</html>
```

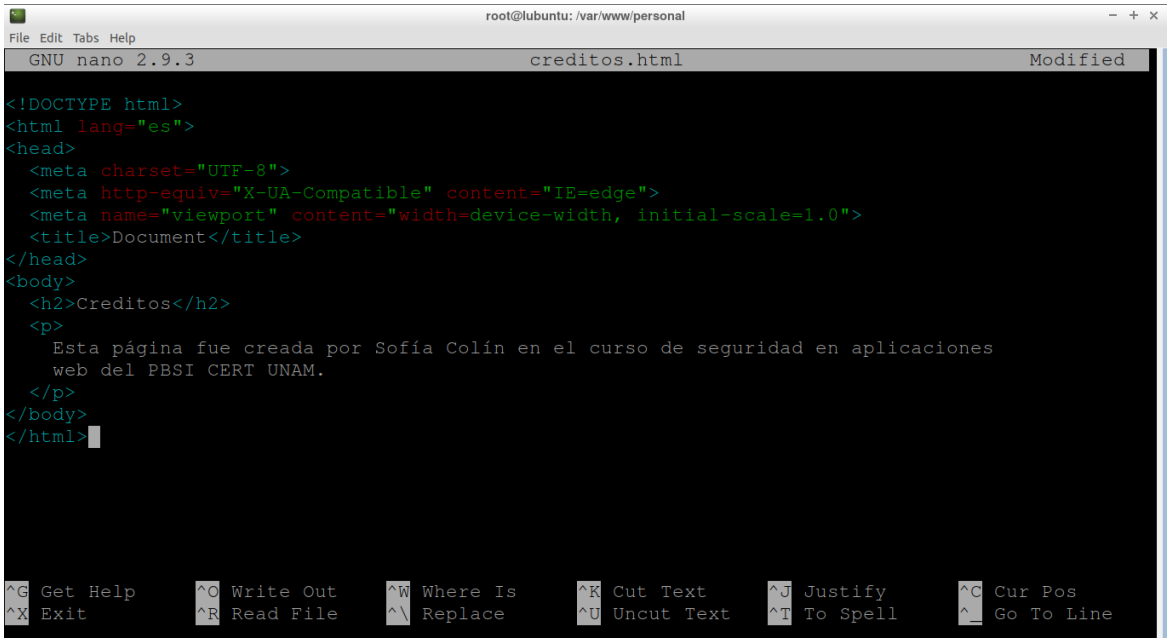


7. Incluir en creditos.html: quién elaboro, ver ejemplo en `www.unam.mx/creditos`

   creditos.html

```
<!DOCTYPE html>
<html lang="es">
<head>
  <meta http-equiv="Content-Type" content="text/html; charset=utf-8"/>
 <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <h2>Créditos</h2>
  <p>
    Esta página fue creada por Sofía Colín en el curso de seguridad en aplicaciones
    web del PBSI CERT UNAM.
  </p>
</body>
</html>
```

```
root@lubuntu:~# cd /var/www/personal/
root@lubuntu:/var/www/personal# nano index.html
root@lubuntu:/var/www/personal#
root@lubuntu:/var/www/personal# nano creditos.html
```

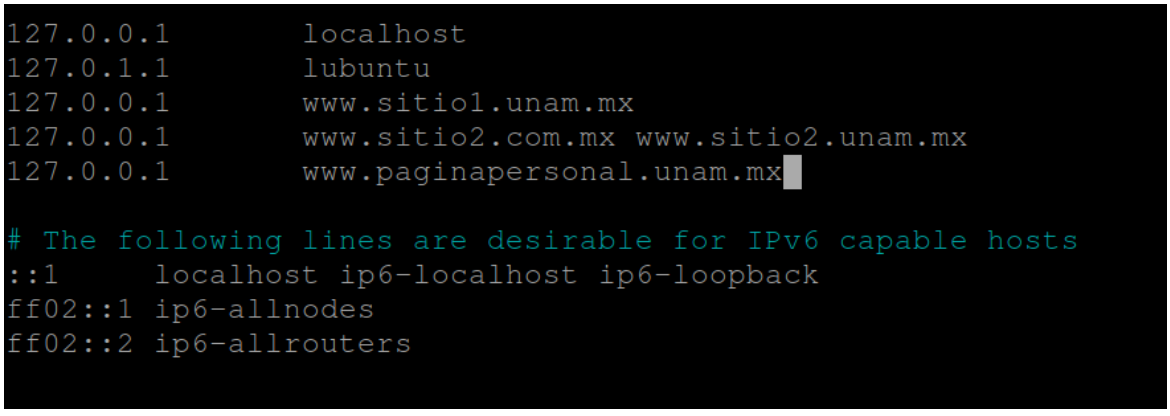


8. Añadir el nombre de la página a /etc/hosts

```
nano /etc/hosts
```

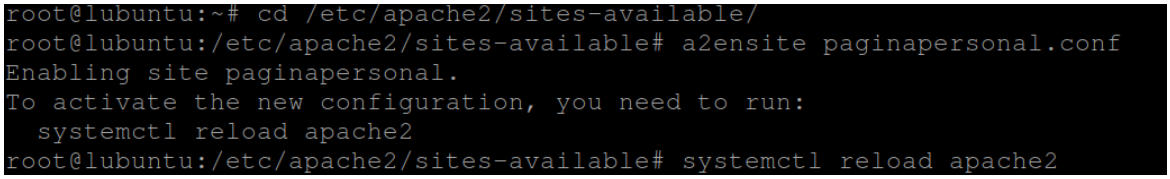
Agregar la línea

```
127.0.0.1       www.paginapersonal.unam.mx
```



9. Dar de alta el sitio y releer los archivos de apache

```
cd /etc/apache2/sites-available/
a2ensite paginapersonal.conf
systemctl reload apache2
```



Resultados


Pagina personal — Mozilla Firefox (Private Browsing)
Pagina personal
www.paginapersonal.unam.mx
¡Hola! :D
Mi nombre es Sofía Colín, soy estudiante de décimo semestre de Ingeniería en Computación en la Facultad de Ingeniería de la UNAM.
En un futuro me gustaría conocer todo México y algunas partes del mundo como Japón. También espero poder tener una segunda carrera.
Créditos


Document — Mozilla Firefox (Private Browsing)
Document
www.paginapersonal.unam.mx/creditos.html
Créditos
Esta página fue creada por Sofía Colín en el curso de seguridad en aplicaciones web del PBSI CERT UNAM.

Preguntas

1. **¿Qué pasa si no tengo un index.*?**

   Si se tiene la opción `Options -Indexes` en la configuración se listara el contenido de la carpeta, sino se tiene esa opción entonces solo se muestra un mensaje Forbidden

2. **¿Como indicar que home.html debe servirse al solicitar la raíz del sitio?**

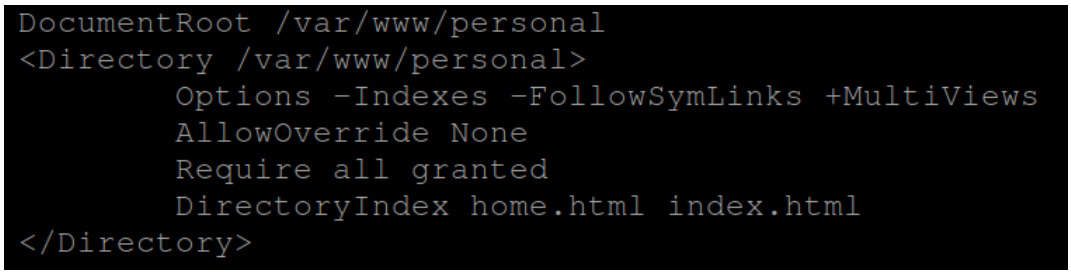
   Se debe configurar en el archivo de configuración del sitio, en este caso

   ```
   nano /etc/apache2/sites-available/paginapersonal.conf
   ```

   y añadir `DirectoryIndex`

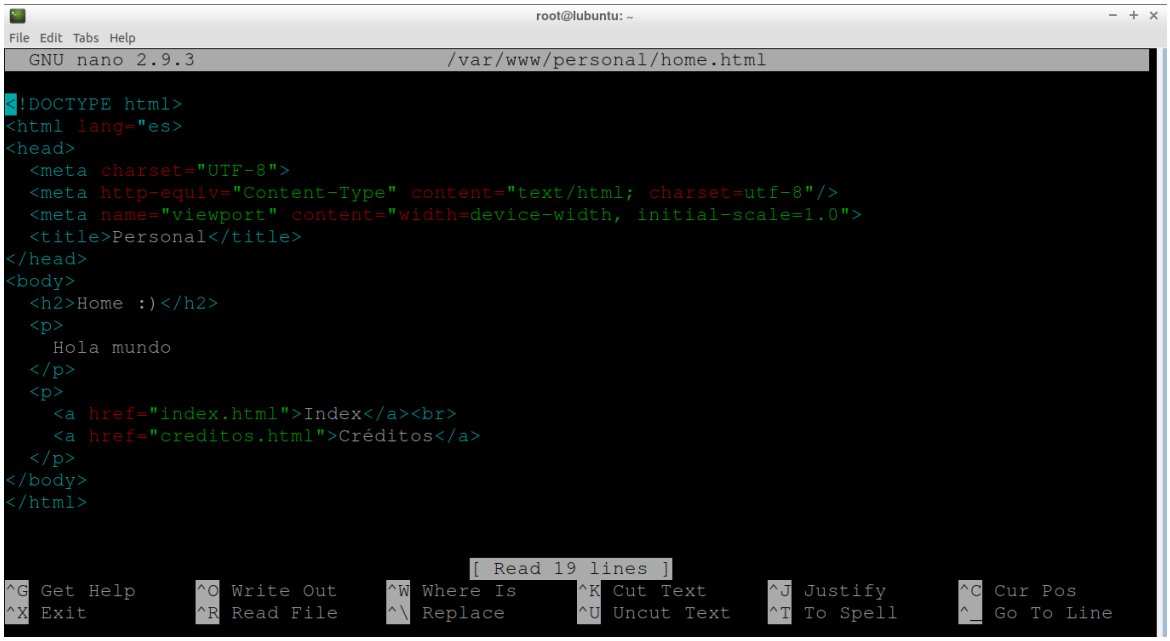
   ```
   DocumentRoot /var/www/personal
   <Directory /var/www/personal>
       Options -Indexes -FollowSymLinks +MultiViews
       AllowOverride None
       Require all granted
       DirectoryIndex home.html index.html
    </Directory>
   ```

   Cuando el usuario solicita /, Apache buscará home.html, en caso de no exitir buscará index.html y si no se encuentra ninguno, mostrará el contenido de la carpera. Se pueden especificar más archivos.

   /var/www/personal/home.html

```
<!DOCTYPE html>
<html lang="es>
<head>
  <meta charset="UTF-8">
  <meta http-equiv="Content-Type" content="text/html; charset=utf-8"/>
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Personal</title>
</head>
<body>
  <h2>Home :)</h2>
  <p>
    Hola mund
  </p>
  <p>
    <a href="index.html">Index</a>
    <a href="creditos.html">Créditos</a>
  </p>
</body>
</html>
```



Releemos los archivos de apache y verificamos el funcionamiento

```
systemctl reload apache2
```

Anexo

/etc/apache2/sites-available/paginapersonal.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 www.paginapersonal.unam.mx
  ServerAdmin webmaster@localhost
  DocumentRoot /var/www/personal
  <Directory /var/www/personal>
    Options -Indexes -FollowSymLinks +MultiViews
    AllowOverride None
    Require all granted
    DirectoryIndex index.html home.html
  </Directory>

  # 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}/personal-error.log
  CustomLog ${APACHE_LOG_DIR}/personal-access.log combined

  ErrorDocument 404 /error.html
  ErrorDocument 500 /error.html
  ErrorDocument 403 /error.html
  ErrorDocument 401 /error.html


  # 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
</VirtualHost>

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

/etc/apache2/apache2.conf

```
# This is the main Apache server configuration file.  It contains the
# configuration directives that give the server its instructions.
# See http://httpd.apache.org/docs/2.4/ for detailed information about
# the directives and /usr/share/doc/apache2/README.Debian about Debian specific
# hints.
#
#
# Summary of how the Apache 2 configuration works in Debian:
# The Apache 2 web server configuration in Debian is quite different to
# upstream's suggested way to configure the web server. This is because Debian's
# default Apache2 installation attempts to make adding and removing modules,
# virtual hosts, and extra configuration directives as flexible as possible, in
# order to make automating the changes and administering the server as easy as
# possible.

# It is split into several files forming the configuration hierarchy outlined
# below, all located in the /etc/apache2/ directory:
#
# /etc/apache2/
# |-- apache2.conf
# |	`--  ports.conf
# |-- mods-enabled
# |	|-- *.load
# |	`-- *.conf
# |-- conf-enabled
# |	`-- *.conf
#   `-- sites-enabled
#   `-- *.conf
#
#
# * apache2.conf is the main configuration file (this file). It puts the pieces
#   together by including all remaining configuration files when starting up the
#   web server.
#
# * ports.conf is always included from the main configuration file. It is
#   supposed to determine listening ports for incoming connections which can be
#   customized anytime.
#
# * Configuration files in the mods-enabled/, conf-enabled/ and sites-enabled/
#   directories contain particular configuration snippets which manage modules,
#   global configuration fragments, or virtual host configurations,
#   respectively.
#
#   They are activated by symlinking available configuration files from their
#   respective *-available/ counterparts. These should be managed by using our
#   helpers a2enmod/a2dismod, a2ensite/a2dissite and a2enconf/a2disconf. See
#   their respective man pages for detailed information.
#
# * The binary is called apache2. Due to the use of environment variables, in
#   the default configuration, apache2 needs to be started/stopped with
#   /etc/init.d/apache2 or apache2ctl. Calling /usr/bin/apache2 directly will not
#   work with the default configuration.


# Global configuration
#

#
# ServerRoot: The top of the directory tree under which the server's
# configuration, error, and log files are kept.
#
# NOTE!  If you intend to place this on an NFS (or otherwise network)
# mounted filesystem then please read the Mutex documentation (available
# at <URL:http://httpd.apache.org/docs/2.4/mod/core.html#mutex>);
# you will save yourself a lot of trouble.
#
# Do NOT add a slash at the end of the directory path.
#
#ServerRoot "/etc/apache2"

#
# The accept serialization lock file MUST BE STORED ON A LOCAL DISK.
#
#Mutex file:${APACHE_LOCK_DIR} default

#
# The directory where shm and other runtime files will be stored.
#
```

```
DefaultRuntimeDir ${APACHE_RUN_DIR}

#
# PidFile: The file in which the server should record its process
# identification number when it starts.
# This needs to be set in /etc/apache2/envvars
#
PidFile ${APACHE_PID_FILE}

#
# Timeout: The number of seconds before receives and sends time out.
#
Timeout 300

#
# KeepAlive: Whether or not to allow persistent connections (more than
# one request per connection). Set to "Off" to deactivate.
#
KeepAlive On

#
# MaxKeepAliveRequests: The maximum number of requests to allow
# during a persistent connection. Set to 0 to allow an unlimited amount.
# We recommend you leave this number high, for maximum performance.
#
MaxKeepAliveRequests 100

#
# KeepAliveTimeout: Number of seconds to wait for the next request from the
# same client on the same connection.
#
KeepAliveTimeout 5


# These need to be set in /etc/apache2/envvars
User ${APACHE_RUN_USER}
Group ${APACHE_RUN_GROUP}

#
# HostnameLookups: Log the names of clients or just their IP addresses
# e.g., www.apache.org (on) or 204.62.129.132 (off).
# The default is off because it'd be overall better for the net if people
# had to knowingly turn this feature on, since enabling it means that
# each client request will result in AT LEAST one lookup request to the
# nameserver.
#
HostnameLookups Off

# ErrorLog: The location of the error log file.
# If you do not specify an ErrorLog directive within a <VirtualHost>
# container, error messages relating to that virtual host will be
# logged here.  If you *do* define an error logfile for a <VirtualHost>
# container, that host's errors will be logged there and not here.
#
ErrorLog ${APACHE_LOG_DIR}/error.log

#
# LogLevel: Control the severity of messages logged to the error_log.
# Available values: trace8, ..., trace1, debug, info, notice, warn,
# error, crit, alert, emerg.
# It is also possible to configure the log level for particular modules, e.g.
# "LogLevel info ssl:warn"
#
LogLevel warn

# Include module configuration:
IncludeOptional mods-enabled/*.load
IncludeOptional mods-enabled/*.conf

# Include list of ports to listen on
Include ports.conf


# Sets the default security model of the Apache2 HTTPD server. It does
# not allow access to the root filesystem outside of /usr/share and /var/www.
# The former is used by web applications packaged in Debian,
# the latter may be used for local directories served by the web server. If
# your system is serving content from a sub-directory in /srv you must allow
# access here, or in any related virtual host.
<Directory />
  Options FollowSymLinks
  AllowOverride None
  Require all denied
```

```
</Directory>

<Directory /usr/share>
  AllowOverride None
  Require all granted
</Directory>

<Directory /var/www/>
  Options Indexes FollowSymLinks
  AllowOverride None
  Require all granted
</Directory>

#<Directory /srv/>
# Options Indexes FollowSymLinks
# AllowOverride None
# Require all granted
#</Directory>




# AccessFileName: The name of the file to look for in each directory
# for additional configuration directives.  See also the AllowOverride
# directive.
#
AccessFileName .htaccess

#
# The following lines prevent .htaccess and .htpasswd files from being
# viewed by Web clients.
#
<FilesMatch "^\.ht">
  Require all denied
</FilesMatch>


#
# The following directives define some format nicknames for use with
# a CustomLog directive.
#
# These deviate from the Common Log Format definitions in that they use %O
# (the actual bytes sent including headers) instead of %b (the size of the
# requested file), because the latter makes it impossible to detect partial
# requests.
#
# Note that the use of %{X-Forwarded-For}i instead of %h is not recommended.
# Use mod_remoteip instead.
#
LogFormat "%v:%p %h %l %u %t \"%r\" %>s %O \"%{Referer}i\" \"%{User-Agent}i\"" vhost_combined
LogFormat "%h %l %u %t \"%r\" %>s %O \"%{Referer}i\" \"%{User-Agent}i\"" combined
LogFormat "%h %l %u %t \"%r\" %>s %O" common
LogFormat "%{Referer}i -> %U" referer
LogFormat "%{User-agent}i" agent

# Include of directories ignores editors' and dpkg's backup files,
# see README.Debian for details.

# Include generic snippets of statements
IncludeOptional conf-enabled/*.conf

# Include the virtual host configurations:
IncludeOptional sites-enabled/*.conf

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

ServerTokens ProductOnly
ServerSignature off
```

/etc/hosts

```
127.0.0.1 localhost
127.0.1.1 lubuntu
127.0.0.1 www.sitio1.unam.mx
127.0.0.1 www.sitio2.com.mx www.sitio2.unam.mx
127.0.0.1 www.paginapersonal.unam.mx

# The following lines are desirable for IPv6 capable hosts
::1     localhost ip6-localhost ip6-loopback
```

```
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
```

Referencias

Dreamhost. (2022, March 31). ¿Cómo puedo controlar mis directorios index con un archivo .htaccess? https://help.dreamhost.com/hc/es/articles/215747718--Cómo-puedo-controlar-mis-directorios-index-con-un-archivo-htaccess-

Ellingwood, J. (2015, June 9). How To Configure Apache to Use Custom Error Pages on Ubuntu 14.04. Digitalocean.com; DigitalOcean. https://www.digitalocean.com/community/tutorials/how-to-configure-apache-to-use-custom-error-pages-on-ubuntu-14-04