Instalación servidor web apache HTTP:

```
sudo apt-get update
sudo apt-get install apache2
```

```
ps -ef | grep apache2
```

```
root@a33p02:~# ps -ef | grep apache2
root          298       1  0 13:42 ?        00:00:00 /usr/sbin/apache2 -k start
www-data      300     298  0 13:42 ?        00:00:00 /usr/sbin/apache2 -k start
www-data      301     298  0 13:42 ?        00:00:00 /usr/sbin/apache2 -k start
root         1021     407  0 13:43 pts/0    00:00:00 grep --color=auto apache2
```

```
sudo apt install net-tools
netstat -ltn
```

```
root@a33p02:~# netstat -ltn
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp        0      0 127.0.0.53:53           0.0.0.0:*               LISTEN
tcp6       0      0 :::80                   :::*                    LISTEN
tcp6       0      0 :::1999                 :::*                    LISTEN
root@a33p02:~#
```

```
ls -l /var/www/html

sudo nano /etc/apache2

ls -l /etc/apache2
```

```
root@a33p02:~# ls -l /var/www/html/index.html
-rw-r--r-- 1 root root 10724 Sep 25 12:26 /var/www/html/index.html
```

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <!--
    Modified from the Debian original for Ubuntu
    Last updated: 2022-03-22
    See: https://launchpad.net/bugs/1966004
  -->
  <head>
    <meta http-equiv="Content-Type" content="text/html; charset=UTF-8" />
    <title>Apache2 Ubuntu Default Page: It works</title>
    <style type="text/css" media="screen">
  * {
    margin: 0px 0px 0px 0px;
    padding: 0px 0px 0px 0px;
  }

  body, html {
    padding: 3px 3px 3px 3px;

    background-color: #D8DBE2;

    font-family: Ubuntu, Verdana, sans-serif;
    font-size: 11pt;
    text-align: center;
  }
```

```
                              [ Read 364 lines ]
^G Help        ^O Write Out   ^W Where Is    ^K Cut         ^T Execute     ^C Location    M-U Undo       M-A Set Mark
^X Exit        ^R Read File   ^\ Replace     ^U Paste       ^J Justify     ^/ Go To Line  M-E Redo       M-6 Copy
```

```
root@a33p02:~# ls -l /etc/apache2
total 80
-rw-r--r-- 1 root root  7224 Jul 17 20:57 apache2.conf
drwxr-xr-x 2 root root  4096 Sep 25 12:08 conf-available
drwxr-xr-x 2 root root  4096 Sep 25 12:08 conf-enabled
-rw-r--r-- 1 root root  1782 Dec  4  2023 envvars
-rw-r--r-- 1 root root 31063 Dec  4  2023 magic
drwxr-xr-x 2 root root 12288 Sep 25 12:08 mods-available
drwxr-xr-x 2 root root  4096 Sep 25 12:08 mods-enabled
-rw-r--r-- 1 root root   320 Dec  4  2023 ports.conf
drwxr-xr-x 2 root root  4096 Sep 25 12:08 sites-available
drwxr-xr-x 2 root root  4096 Sep 25 12:08 sites-enabled
```

Ficheros de configuración:

```
sudo nano /etc/apache2/apache2.conf
```

```
# 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
```

```
sudo nano 000-default.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

        ServerAdmin webmaster@localhost
        DocumentRoot /var/www/html

        # 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
</VirtualHost>

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

```
ls -l /etc/apache2/sites-enabled
```
```
root@a33p02:~# ls -l /etc/apache2/sites-enabled
total 0
lrwxrwxrwx 1 root root 35 Sep 25 12:08 000-default.conf -> ../sites-available/000-default.conf
```

```
sudo nano /etc/apache2/apache2.conf
```
```
# 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"
```

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

#
```

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

- ¿Se permiten conexiones persistentes (todas las conexiones de un usuario se atienden en La misma conexión TCP), ¿Qué directiva define este comportamiento?

Si, KeepAlive

 - ¿Cuál es el fichero de errores? ¿Qué directiva lo define?

ErrorLog

Consulta el fichero /etc/apache2/ports.conf. ¿Qué puerto es el que escucha peticiones http en servidor apache2? ¿Qué puerto escuchará también si se habilitara el módulo modssl?

80, 443

```
sudo nano /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
```
[Read 227 lines]

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

```apache
<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

        ServerAdmin webmaster@localhost
        DocumentRoot /var/www/html

        # 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
</VirtualHost>

# vim: syntax=apache ts=4 sw=4 sts=4 sr noet
```
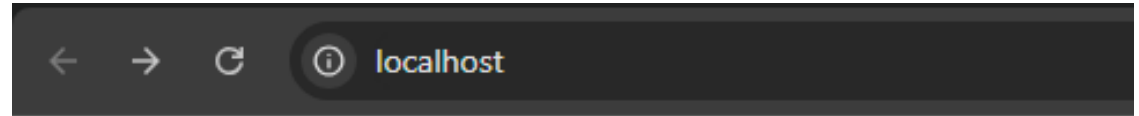
← → C ⓘ localhost

Index of /

Name	Last modified	Size	Description
📁 ciclos/	2024-10-28 13:00	-	

```
sudo mv /var/www/html/index.html
/var/www/html/indice.html
```

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

```
        # Available loglevels: trace8, ..., trace1, debug,
        # error, crit, alert, emerg.
        # It is also possible to configure the loglevel for
        # 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/
        # enabled or disabled at a global level, it is poss
        # include a line for only one particular virtual ho
        # following line enables the CGI configuration for
        # after it has been globally disabled with "a2disco
        #Include conf-available/serve-cgi-bin.conf
</VirtualHost>

<Directory /var/www/html >
 DirectoryIndex despliegue.html
 Options Indexes FollowSymLinks
 AllowOverride All
 Require all granted
</Directory>
```

```
sudo nano /var/www/html/despliegue.html
```

```
  GNU nano 6.2                                    /var/www/html/despliegue.html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <h3>Hola buenas</h3>
</body>
</html>
```

← → C ⓘ localhost

Hola buenas

```
http://localhos:80/ciclos/listado.html
```

← → C ⓘ localhos/ciclos/listado.html

No se puede acceder a este sitio

Revisa que no haya errores de ortografía en localhos.

DNS_PROBE_FINISHED_NXDOMAIN

Volver a cargar

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

← → C ⓘ localhost/ciclos/noesta.html

Not Found

The requested URL was not found on this server.

Apache/2.4.52 (Ubuntu) Server at localhost Port 80

```
<Directory /var/www/html/ciclos>
          Options Indexes FollowSymLinks
          AllowOverride All
          Require all granted
</Directory>

ErrorDocument 404 /404.html

Alias /apuntes /home/a33p02/apuntes
```

```
<Directory /var/www/html/ciclos>
        Options Indexes FollowSymLinks
        AllowOverride All
        Require all granted
</Directory>

ErrorDocument 404 /404.html

Alias /apuntes /home/a33p02/apuntes

<Directory /home/a33p03/apuntes>
        Options Indexes FollowSymLinks
        AllowOverride None
        Raquire all granted
</Directory>

Redirect /fp https://www.todofp.es

ErrorLog ${APACHE_LOG_DIR}/error.log
CustomLog ${APACHE_LOG_DIR}/access.log combined
</VistualHost>
```