

Instalacion y configuracion de apache

```
root@valentina-VirtualBox:/home/valentina# apt update && apt upgrade -y
Obj:1 http://es.archive.ubuntu.com/ubuntu noble InRelease
```

como es la misma máquina estoy reutilizando algunos comandos y las capturas del documento guía son los comandos reutilizados.

## 2. Instalar Apache2

**Comando:**

```
sudo apt install apache2 -y
```

**Descripción:** Instala el servidor web Apache en tu sistema.

Cambie el puerto que tiene que usar

```
root@valentina-VirtualBox:/home/valentina# nano /etc/apache2/ports.conf
```

```
GNU nano 7.2 /etc/apache2/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 8080

<IfModule ssl_module>
    Listen 443
</IfModule>

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

```
root@valentina-VirtualBox:/home/valentina# nano /etc/apache2/sites-available/000-default.conf
```

```
GNU nano 7.2 /etc/apache2/sites-available/000-default.conf *
<VirtualHost *:8080>
    # 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

[ 29 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
```

## 5. Instalar PHP

### Comando:

```
sudo apt install php libapache2-mod-php -y
```

**Descripción:** Instala PHP y su módulo para funcionar con Apache.

```
root@valentina-VirtualBox:/home/valentina# systemctl restart apache2
root@valentina-VirtualBox:/home/valentina# systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: enabled)
   Active: active (running) since Fri 2025-10-10 08:58:31 CEST; 11s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 10008 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
    Main PID: 10012 (apache2)
       Tasks: 6 (limit: 4603)
      Memory: 10.5M (peak: 11.1M)
         CPU: 37ms
    CGroup: /system.slice/apache2.service
            └─10012 /usr/sbin/apache2 -k start
              └─10014 /usr/sbin/apache2 -k start
                └─10015 /usr/sbin/apache2 -k start
                  └─10016 /usr/sbin/apache2 -k start
                    └─10017 /usr/sbin/apache2 -k start
                      └─10018 /usr/sbin/apache2 -k start
```


verifique que si esta usando el puerto asignado

```
root@valentina-VirtualBox:/home/valentina# netstat -tulpn | grep -E 8080
tcp6      0      0 :::8080          :::*              ESCUCHAR        10012/apache2
```

```

root@valentina-VirtualBox:/home/valentina# echo "<?php phpinfo(); ?>" | tee /var/www/html/info.php
<?php phpinfo(); ?>
root@valentina-VirtualBox:/home/valentina# curl http://localhost:8080/info.php
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"><head>
<style type="text/css">
body {background-color: #fff; color: #222; font-family: sans-serif;}
pre {margin: 0; font-family: monospace;}
a:link {color: #009; text-decoration: none; background-color: #fff;}
a:hover {text-decoration: underline;}
table {border-collapse: collapse; border: 0; width: 934px; box-shadow: 1px 2px 3px rgba(0, 0, 0, 0.2);}
.center {text-align: center;}
.center table {margin: 1em auto; text-align: left;}
.center th {text-align: center !important;}
td, th {border: 1px solid #666; font-size: 75%; vertical-align: baseline; padding: 4px 5px;}
th {position: sticky; top: 0; background: inherit;}
h1 {font-size: 150%;}
h2 {font-size: 125%;}
h2 a:link, h2 a:visited {color: inherit; background: inherit;}
.p {text-align: left;}
.e {background-color: #ccf; width: 300px; font-weight: bold;}
.h {background-color: #99c; font-weight: bold;}

```

<div> <div>PHP Version 8.3.6</div>  </div>	
System	Linux valentina-VirtualBox 6.14.0-33-generic #33~24.04.1-Ubuntu SMP PREEMPT_DYNAMIC Fri Sep 19 17:02:30 UTC 2 x86_64
Build Date	Jul 14 2025 18:30:55
Build System	Linux
Server API	Apache 2.0 Handler
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc/php/8.3/apache2
Loaded Configuration File	/etc/php/8.3/apache2/php.ini
Scan this dir for additional .ini files	/etc/php/8.3/apache2/conf.d
Additional .ini files parsed	/etc/php/8.3/apache2/conf.d/10-opcache.ini, /etc/php/8.3/apache2/conf.d/10-pdo.ini, /etc/php/8.3/apache2/conf.d/20-calendar.ini, /etc/php/8.3/apache2/conf.d/20-ctype.ini, /etc/php/8.3/apache2/conf.d/20-exif.ini, /etc/php/8.3/apache2/conf.d/20-ffi.ini, /etc/php/8.3/apache2/conf.d/20-fileinfo.ini, /etc/php/8.3/apache2/conf.d/20-ftp.ini, /etc/php/8.3/apache2/conf.d/20-gettext.ini, /etc/php/8.3/apache2/conf.d/20-iconv.ini, /etc/php/8.3/apache2/conf.d/20-phar.ini, /etc/php/8.3/apache2/conf.d/20-posix.ini, /etc/php/8.3/apache2/conf.d/20-readline.ini, /etc/php/8.3/apache2/conf.d/20-shmop.ini, /etc/php/8.3/apache2/conf.d/20-sockets.ini, /etc/php/8.3/apache2/conf.d/20-sysvmsg.ini, /etc/php/8.3/apache2/conf.d/20-sysvsem.ini, /etc/php/8.3/apache2/conf.d/20-sysvshm.ini, /etc/php/8.3/apache2/conf.d/20-tokenizer.ini
PHP API	20230831
PHP Extension	20230831
Zend Extension	420230831
Zend Extension Build	API420230831,NTS
PHP Extension Build	API20230831,NTS
Debug Build	no
Thread Safety	disabled
Zend Signal Handling	enabled

## 2. Instalacion y configuracion de nginx

### 1. Instalar Nginx

#### Comando:

```
sudo apt install nginx -y
```

**Descripción:** Instala el servidor web Nginx en tu sistema.

le asigno un puerto

```
root@valentina-VirtualBox:/home/valentina# nano /etc/nginx/sites-available/default
```

```
GNU nano 7.2 /etc/nginx/sites-available/default *
# leave it as reference inside of sites-available where it will continue to be
# updated by the nginx packaging team.
#
# This file will automatically load configuration files provided by other
# applications, such as Drupal or Wordpress. These applications will be made
# available underneath a path with that package name, such as /drupal8.
#
# Please see /usr/share/doc/nginx-doc/examples/ for more detailed examples.
##

# Default server configuration
#
server {
    listen 8081 default_server;
    listen [::]:8081 default_server;

    # SSL configuration
    #
    # listen 443 ssl default_server;
    # listen [::]:443 ssl default_server;
```

```
root@valentina-VirtualBox:/home/valentina# echo "<h1>Servidor Nginx</h1><p>Funcionando
en puerto 8081</p>" | tee /usr/share/nginx/html/index.html
<h1>Servidor Nginx</h1><p>Funcionando en puerto 8081</p>
root@valentina-VirtualBox:/home/valentina# systemctl restart nginx
root@valentina-VirtualBox:/home/valentina# systemctl status nginx
● nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/usr/lib/systemd/system/nginx.service; enabled; preset: enabled)
   Active: active (running) since Fri 2025-10-10 09:14:17 CEST; 12s ago
     Docs: man:nginx(8)
  Process: 11451 ExecStartPre=/usr/sbin/nginx -t -q -g daemon on; master_process on>
  Process: 11452 ExecStart=/usr/sbin/nginx -g daemon on; master_process on; (code=e>
 Main PID: 11454 (nginx)
    Tasks: 5 (limit: 4603)
   Memory: 3.7M (peak: 4.2M)
      CPU: 17ms
   CGroup: /system.slice/nginx.service
           └─11454 "nginx: master process /usr/sbin/nginx -g daemon on; master_proc>
             └─11455 "nginx: worker process"
               └─11456 "nginx: worker process"
                 └─11457 "nginx: worker process"
                   └─11458 "nginx: worker process"
```

verifico que use ese puerto

```
root@valentina-VirtualBox:/home/valentina# netstat -tulpn | grep -E 8081
tcp        0      0 0.0.0.0:8081          0.0.0.0:*            ESCUCHAR    11454/nginx: master
tcp6       0      0 :::8081              :::*                  ESCUCHAR    11454/nginx: master
```

como la ruta esta mal aca esta arreglada de nuevo

```
root@valentina-VirtualBox:/home/valentina# echo "<h1>Servidor Nginx</h1><p>Funcionando
en puerto 8081</p>" | tee /var/www/html/index.html
<h1>Servidor Nginx</h1><p>Funcionando en puerto 8081</p>
root@valentina-VirtualBox:/home/valentina# systemctl restart nginx
root@valentina-VirtualBox:/home/valentina# curl http://localhost:8081
<h1>Servidor Nginx</h1><p>Funcionando en puerto 8081</p>
```



3. instalacion y configuracion de Caddy  
instalo las dependencias necesarias

```
root@valentina-VirtualBox:/home/valentina# apt install -y debian-keyring debian-archive-keyring apt-transport-https curl
Leyendo lista de paquetes... Hecho
Creando árbol de dependencias... Hecho
Leyendo la información de estado... Hecho
curl ya está en su versión más reciente (8.5.0-2ubuntu10.6).
```

agrego repositorio de caddy

```
root@valentina-VirtualBox:/home/valentina# curl -1sLf 'https://dl.cloudsmith.io/public/caddy/stable/gpg.key' | sudo gpg --dearmor -o /usr/share/keyrings/caddy-stable-archive-keyring.gpg
root@valentina-VirtualBox:/home/valentina# curl -1sLf 'https://dl.cloudsmith.io/public/caddy/stable/debian.deb.txt' | sudo tee /etc/apt/sources.list.d/caddy-stable.list
# Source: Caddy
# Site: https://github.com/caddyserver/caddy
# Repository: Caddy / stable
# Description: Fast, multi-platform web server with automatic HTTPS

deb [signed-by=/usr/share/keyrings/caddy-stable-archive-keyring.gpg] https://dl.cloudsmith.io/public/caddy/stable/deb/debian any-version main

deb-src [signed-by=/usr/share/keyrings/caddy-stable-archive-keyring.gpg] https://dl.cloudsmith.io/public/caddy/stable/deb/debian any-version main
```

instalo caddy

```
root@valentina-VirtualBox:/home/valentina# apt update && apt install caddy -y
Obj:1 http://es.archive.ubuntu.com/ubuntu noble InRelease
Obj:2 http://es.archive.ubuntu.com/ubuntu noble-updates InRelease
Obj:3 http://es.archive.ubuntu.com/ubuntu noble-backports InRelease
Des:4 https://dl.cloudsmith.io/public/caddy/stable/deb/debian any-version InRelease [14,8 kB]
Obj:5 http://security.ubuntu.com/ubuntu noble-security InRelease
Des:6 https://dl.cloudsmith.io/public/caddy/stable/deb/debian any-version/main amd64 Packages [4.329 B]
Descargados 19,1 kB en 0s (39,9 kB/s)
Leyendo lista de paquetes... Hecho
Creando árbol de dependencias... Hecho
```

creo un directorio para caddy

```
root@valentina-VirtualBox:/home/valentina# mkdir -p /var/www/caddy
```

creo un archivo Markdown de prueba

```

root@valentina-VirtualBox:/home/valentina# echo "# Bienvenido a Caddy" | tee /var/www/caddy/README.md
# Bienvenido a Caddy
root@valentina-VirtualBox:/home/valentina# echo "" | tee -a /var/www/caddy/README.md

root@valentina-VirtualBox:/home/valentina# echo "Este servidor esta funcionando correctamente." | tee -a /var/www/caddy/README.md
Este servidor esta funcionando correctamente.
root@valentina-VirtualBox:/home/valentina# echo "" | tee -a /var/www/caddy/README.md

root@valentina-VirtualBox:/home/valentina# echo "## Caracteristicas" | tee -a /var/www/caddy/README.md
## Caracteristicas
root@valentina-VirtualBox:/home/valentina# echo "- Servidor moderno" | tee -a /var/www/caddy/README.md
- Servidor moderno
root@valentina-VirtualBox:/home/valentina# echo "- HTTPS automatico" | tee -a /var/www/caddy/README.md
- HTTPS automatico
root@valentina-VirtualBox:/home/valentina# echo "- Facil configuracion" | tee -a /var/www/caddy/README.md
- Facil configuracion

root@valentina-VirtualBox:/home/valentina# curl -o /tmp/test-image.jpg "https://www.pythhon.org/static/apple-touch-icon-144x144-precomposed.png"
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left   Speed
100 7382 100 7382    0     0  209k      0  --:--:-- --:--:-- --:--:--   212k
root@valentina-VirtualBox:/home/valentina# mv /tmp/test-image.jpg /var/www/caddy/test.jpg

```

crear un caddyfile personalizado

```

GNU nano 7.2 /etc/caddy/Caddyfile
# this machine's public IP, then replace ":80" below with your
# domain name.

:8082 {
    # Set this path to your site's directory.
    root * /var/www/caddy

    # Enable the static file server.
    file_server browse

    # Another common task is to set up a reverse proxy:
    # reverse_proxy localhost:8080
    @markdown path *.md

    # Or serve a PHP site through php-fpm:
    # php_fastcgi localhost:9000
    header @markdown Content-Type text/plain
}

# Refer to the Caddy docs for more information:

```



```

root@valentina-VirtualBox:/home/valentina# nano /etc/caddy/Caddyfile
root@valentina-VirtualBox:/home/valentina# systemctl restart caddy
root@valentina-VirtualBox:/home/valentina# systemctl status caddy
● caddy.service - Caddy
   Loaded: loaded (/usr/lib/systemd/system/caddy.service; enabled; preset: enabled)
   Active: active (running) since Fri 2025-10-10 09:56:13 CEST; 11s ago
     Docs: https://caddyserver.com/docs/
  Main PID: 12911 (caddy)
    Tasks: 8 (limit: 4603)
   Memory: 11.9M (peak: 12.6M)
      CPU: 75ms
    CGroup: /system.slice/caddy.service
            └─12911 /usr/bin/caddy run --environ --config /etc/caddy/Caddyfile

```

verifico que use el puerto que le asigne

```

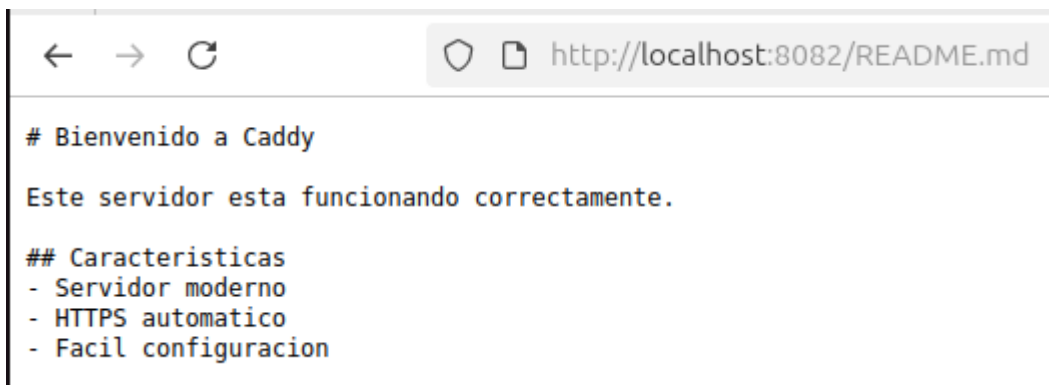
root@valentina-VirtualBox:/home/valentina# netstat -tulpn | grep -E 8082
tcp6      0      0 :::8082          :::*              ESCUCHAR        12911/caddy

root@valentina-VirtualBox:/home/valentina# curl http://localhost:8082/README.md
# Bienvenido a Caddy

Este servidor esta funcionando correctamente.

## Caracteristicas
- Servidor moderno
- HTTPS automatico
- Facil configuracion

```



#### 4. configuración de https

```

root@valentina-VirtualBox:/home/valentina# apt install certbot python3-certbot-apache -y
Leyendo lista de paquetes... Hecho
Creando árbol de dependencias... Hecho
Leyendo la información de estado... Hecho
El paquete indicado a continuación se instaló de forma automática y ya no es necesario.
  libllvm19
Utilice «sudo apt autoremove» para eliminarlo.
Se instalarán los siguientes paquetes adicionales:
  augeas-lenses libaugeas0 python3-acme python3-augeas python3-certbot

```

```
root@valentina-VirtualBox:/home/valentina# openssl req -x509 -nodes -days 365 -newkey rsa
:2048 -keyout /etc/ssl/private/apache-selfsigned.key -out /etc/ssl/certs/apache-selfsigne
d.crt
```

[illegible]

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]:Madrid
```

```
Locality Name (eg, city) []:Madrid
```

```
Organization Name (eg, company) [Internet Widgits Pty Ltd]:
```

```
Organizational Unit Name (eq, section) []:
```

```
Common Name (e.g. server FQDN or YOUR name) []:localhost
```

Email Address []:valensiulay@gmail.com

```
root@valentina-VirtualBox:/home/valentina# a2enmod ssl
```

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
```

verifico que si existan las lineas del certificado

```
GNU nano 7.2 /etc/apache2/sites-available/default-ssl.conf
```

```
<VirtualHost *:443>
```



```

GNU nano 7.2 /etc/apache2/sites-available/default-ssl.conf
#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/ssl/certs/ssl-cert-snakeoil.pem
SSLCertificateKeyFile /etc/ssl/private/ssl-cert-snakeoil.key

# Server Certificate Chain:
# Point SSLCertificateChainFile at a file containing the
# concatenation of PEM encoded CA certificates which form the
# certificate chain for the server certificate. Alternatively

```

le asigno un puerto para que apache lea el https

```

GNU nano 7.2 /etc/apache2/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 8080
Listen 8443

<IfModule ssl_module>
    Listen 443
</IfModule>

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

```

le asigno el puerto que se va a usar

```

GNU nano 7.2 /etc/apache2/sites-available/default-ssl.conf *
<VirtualHost *:8443>
    ServerAdmin webmaster@localhost

```

habilito el sitio ssl

```

root@valentina-VirtualBox:/home/valentina# a2ensite default-ssl.conf
Enabling site default-ssl.
To activate the new configuration, you need to run:
    systemctl reload apache2
root@valentina-VirtualBox:/home/valentina# systemctl restart apache2

```

verifico que si use el puerto asignado

```

root@valentina-VirtualBox:/home/valentina# netstat -tulpn | grep -E 8443
tcp6      0      0 :::8443          :::*              ESCUCHAR        13715/apache2

root@valentina-VirtualBox:/home/valentina# netstat -tulpn | grep -E 8443
tcp6      0      0 :::8443          :::*              ESCUCHAR        13715/ap
ache2
root@valentina-VirtualBox:/home/valentina# curl -i -k https://localhost:8443
HTTP/1.1 200 OK
Date: Fri, 10 Oct 2025 08:21:11 GMT
Server: Apache/2.4.58 (Ubuntu)
Last-Modified: Fri, 10 Oct 2025 07:23:13 GMT
ETag: "39-640c8ca6588f2"
Accept-Ranges: bytes
Content-Length: 57
Content-Type: text/html

<h1>Servidor Nginx</h1><p>Funcionando en puerto 8081</p>

```



# Servidor Nginx

Funcionando en puerto 8081

5. verifico que los servidores si funcionen y esten activos a la vez

```

root@valentina-VirtualBox:/home/valentina# systemctl status apache2 nginx caddy
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: enabled)
   Active: active (running) since Fri 2025-10-10 10:16:19 CEST; 1min 21s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 13709 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
    Main PID: 13715 (apache2)
       Tasks: 6 (limit: 4603)
      Memory: 11.4M (peak: 12.1M)
         CPU: 54ms
    CGroup: /system.slice/apache2.service
            └─13715 /usr/sbin/apache2 -k start
              └─13717 /usr/sbin/apache2 -k start
                └─13718 /usr/sbin/apache2 -k start
                  └─13719 /usr/sbin/apache2 -k start
                    └─13720 /usr/sbin/apache2 -k start
                      └─13721 /usr/sbin/apache2 -k start

oct 10 10:16:18 valentina-VirtualBox systemd[1]: Starting apache2.service - The Apache H
oct 10 10:16:19 valentina-VirtualBox apachectl[13714]: AH00558: apache2: Could not relia
oct 10 10:16:19 valentina-VirtualBox systemd[1]: Started apache2.service - The Apache HT

● nginx.service - A high performance web server and a reverse proxy server

```

```
● nginx.service - A high performance web server and a reverse proxy server
   Loaded: loaded (/usr/lib/systemd/system/nginx.service; enabled; preset: enabled)
   Active: active (running) since Fri 2025-10-10 09:23:18 CEST; 54min ago
     Docs: man:nginx(8)
  Main PID: 11742 (nginx)
    Tasks: 5 (limit: 4603)
   Memory: 3.8M (peak: 4.3M)
      CPU: 20ms
   CGroup: /system.slice/nginx.service
           └─11742 "nginx: master process /usr/sbin/nginx -g daemon on; master_process"
           └─11743 "nginx: worker process"
           └─11744 "nginx: worker process"
           └─11745 "nginx: worker process"
           └─11746 "nginx: worker process"

oct 10 09:23:18 valentina-VirtualBox systemd[1]: Starting nginx.service - A high perform>
oct 10 09:23:18 valentina-VirtualBox systemd[1]: Started nginx.service - A high performa>

● caddy.service - Caddy
   Loaded: loaded (/usr/lib/systemd/system/caddy.service; enabled; preset: enabled)
   Active: active (running) since Fri 2025-10-10 09:56:13 CEST; 21min ago
     Docs: https://caddyserver.com/docs/
  Main PID: 12911 (caddy)
    Tasks: 9 (limit: 4603)
   Memory: 9.7M (peak: 12.6M)
      CPU: 168ms
   CGroup: /system.slice/caddy.service
           └─12911 /usr/bin/caddy run --environ --config /etc/caddy/Caddyfile
```

Papelera