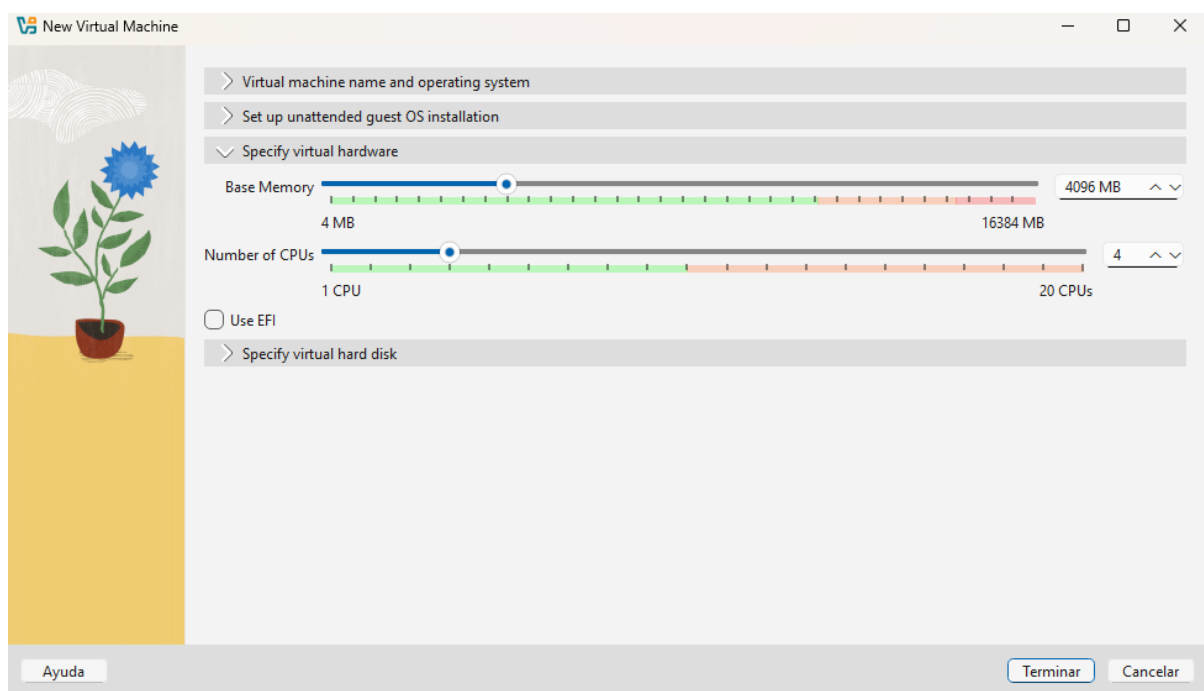
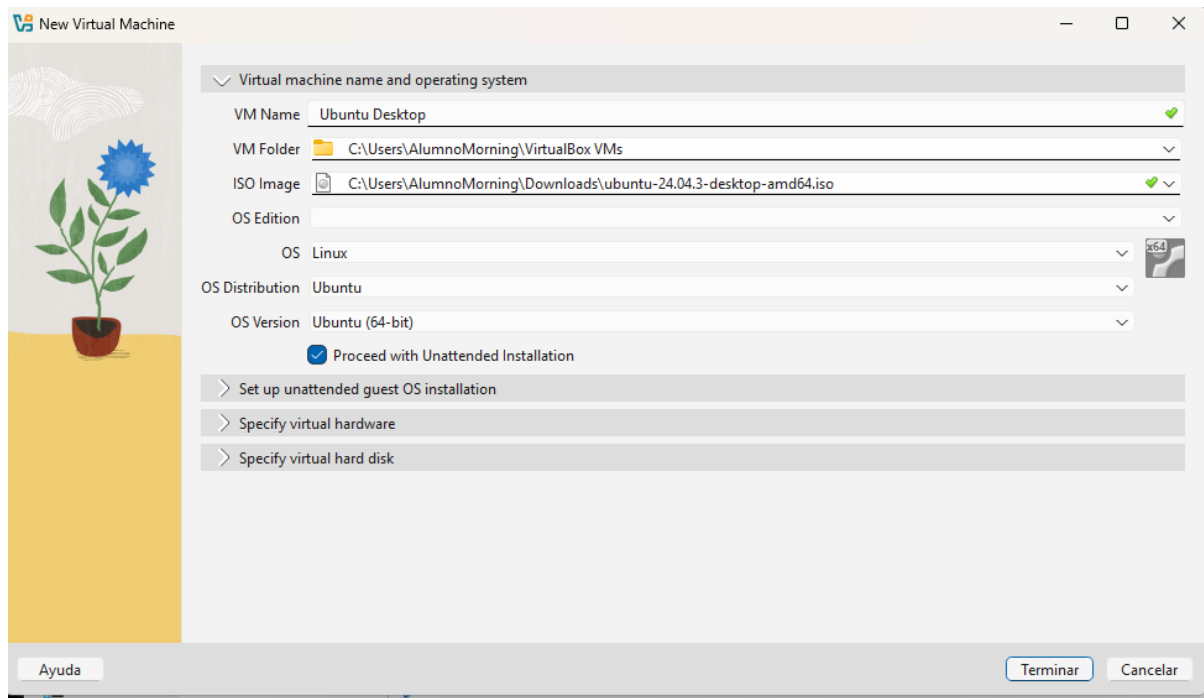
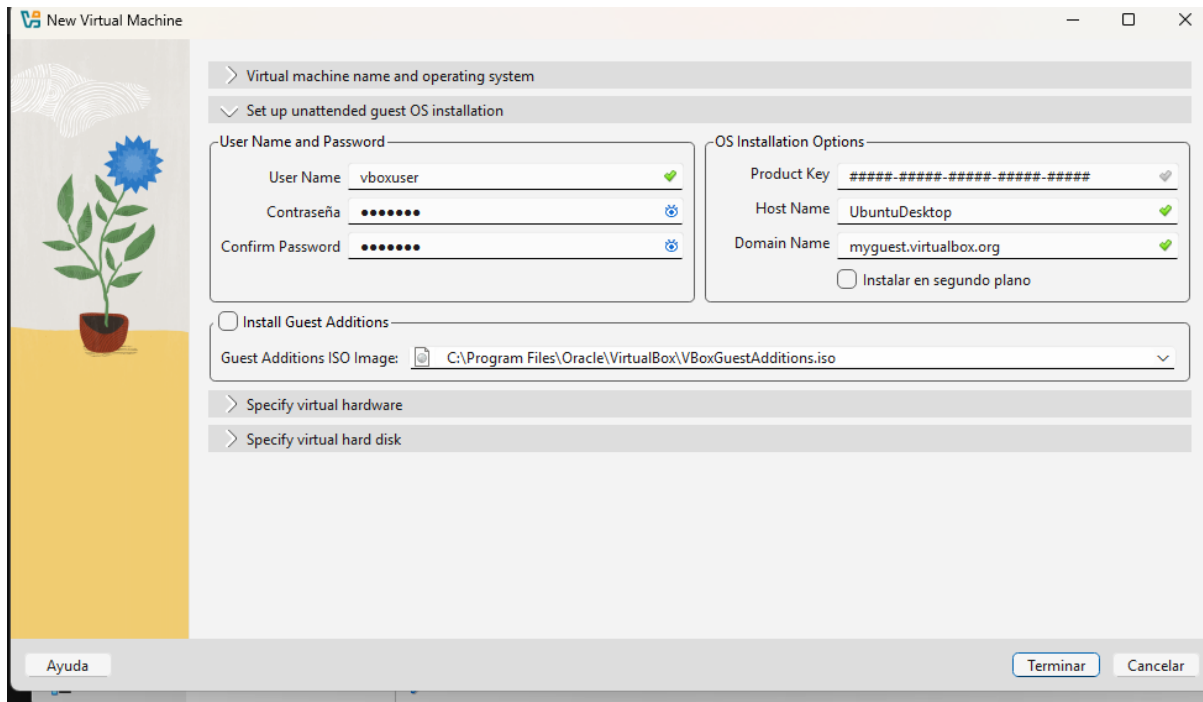
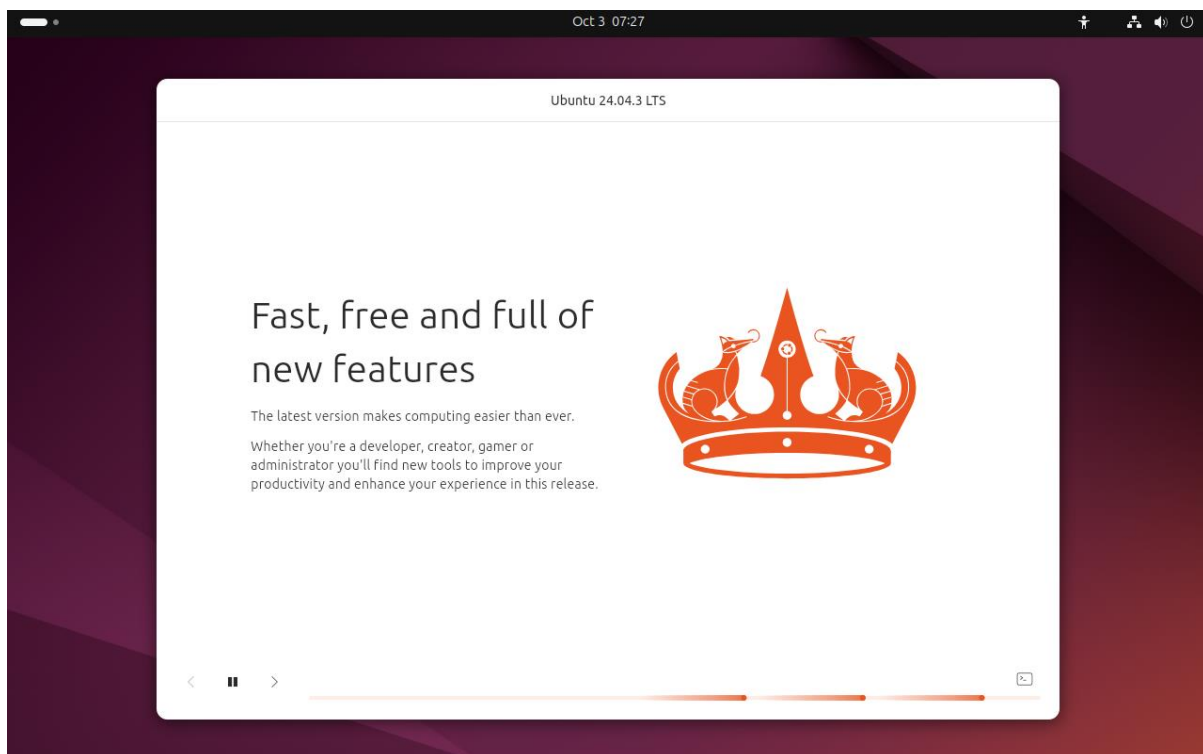


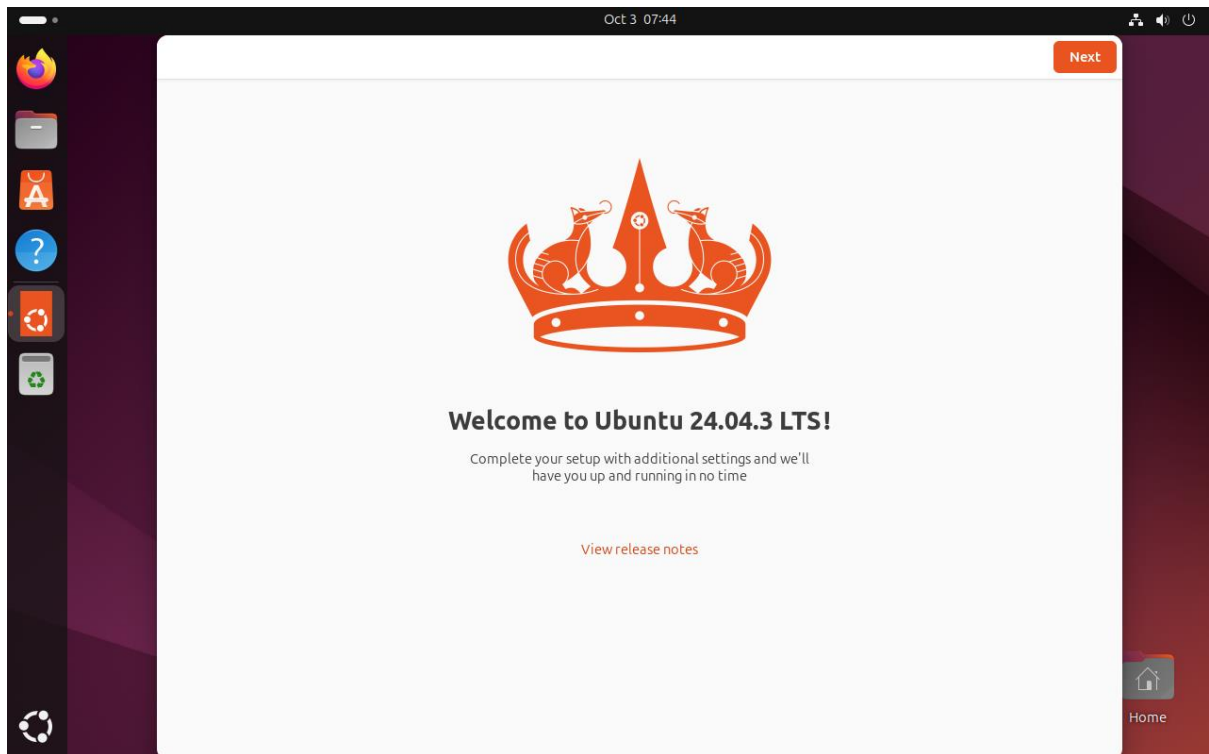
Primero ponemos la iso de ubuntu desktop en la MV y además configuramos la memoria y las CPU, junto con la contraseña y usuario





Esperamos a que se instale



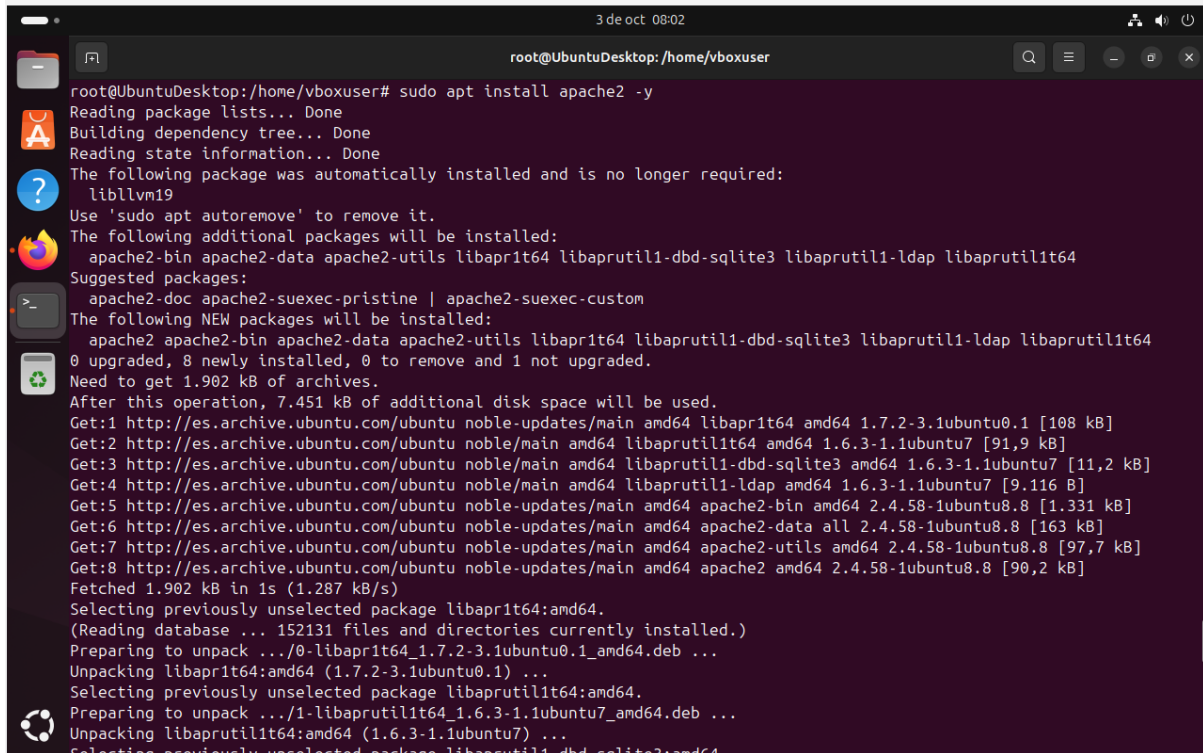


Primero debemos actualizar los paquetes del sistema

```
3 de oct 08:00
root@UbuntuDesktop: /home/vboxuser

root@UbuntuDesktop:/home/vboxuser# sudo apt update && sudo apt upgrade -y
Hit:1 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:2 http://es.archive.ubuntu.com/ubuntu noble InRelease
Hit:3 http://es.archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:4 http://es.archive.ubuntu.com/ubuntu noble-backports InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
65 packages can be upgraded. Run 'apt list --upgradable' to see them.
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following package was automatically installed and is no longer required:
  libllvm19
Use 'sudo apt autoremove' to remove it.
The following NEW packages will be installed:
  libllvm20
The following upgrades have been deferred due to phasing:
  wpasupplicant
The following packages will be upgraded:
  bind9-dnsutils bind9-host bind9-libs bluez bluez-cups bluez-obexd cloud-init
  coreutils dconf-cli dconf-gsettings-backend dconf-service fwupd
  gir1.2-gtk-4.0 gir1.2-nm-1.0 gnome-shell-extension-desktop-icons-ng
  libbluetooth3 libbdconf1 libegl-mesa0 libfwupd2 libgbm1 libgl1-mesa-dri
  libglx-mesa0 libgtk-4-1 libgtk-4-bin libgtk-4-common
  libgtk-4-media-gstreamer libipa-hbac0t64 libldb2 libmalcontent-0-0 libnm0
  libnss-sss libpam-sss libsmclient0 libsss-certmap0 libsss-idmap0
  libsss-nss-idmap0 libwbclient0 libxatracker2 mesa-libgallium
  mesa-vulkan-drivers network-manager
  network-manager-config-connectivity-ubuntu openssh-client openvpn
  powermgmt-base python3-software-properties python3-sss samba-libs
  software-properties-common software-properties-gtk sssd sssd-ad
```

Ahora vamos a instalar el servidor web de apache



```
3 de oct 08:02
root@UbuntuDesktop: /home/vboxuser

root@UbuntuDesktop:/home/vboxuser# sudo apt install apache2 -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  libllvm19
Use 'sudo apt autoremove' to remove it.
The following additional packages will be installed:
  apache2-bin apache2-data apache2-utils libapr1t64 libaprutil1-dbd-sqlite3 libaprutil1-ldap libaprutil1t64
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom
The following NEW packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils libapr1t64 libaprutil1-dbd-sqlite3 libaprutil1-ldap libaprutil1t64
0 upgraded, 8 newly installed, 0 to remove and 1 not upgraded.
Need to get 1.902 kB of archives.
After this operation, 7.451 kB of additional disk space will be used.
Get:1 http://es.archive.ubuntu.com/ubuntu noble-updates/main amd64 libapr1t64 amd64 1.7.2-3.1ubuntu0.1 [108 kB]
Get:2 http://es.archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1t64 amd64 1.6.3-1.1ubuntu7 [91,9 kB]
Get:3 http://es.archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1-dbd-sqlite3 amd64 1.6.3-1.1ubuntu7 [11,2 kB]
Get:4 http://es.archive.ubuntu.com/ubuntu noble/main amd64 libaprutil1-ldap amd64 1.6.3-1.1ubuntu7 [9,116 B]
Get:5 http://es.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-bin amd64 2.4.58-1ubuntu8.8 [1.331 kB]
Get:6 http://es.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-data all 2.4.58-1ubuntu8.8 [163 kB]
Get:7 http://es.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2-utils amd64 2.4.58-1ubuntu8.8 [97,7 kB]
Get:8 http://es.archive.ubuntu.com/ubuntu noble-updates/main amd64 apache2 amd64 2.4.58-1ubuntu8.8 [90,2 kB]
Fetched 1.902 kB in 1s (1.287 kB/s)
Selecting previously unselected package libapr1t64:amd64.
(Reading database ... 152131 files and directories currently installed.)
Preparing to unpack .../0-libapr1t64_1.7.2-3.1ubuntu0.1_amd64.deb ...
Unpacking libapr1t64:amd64 (1.7.2-3.1ubuntu0.1) ...
Selecting previously unselected package libaprutil1t64:amd64.
Preparing to unpack .../1-libaprutil1t64_1.6.3-1.1ubuntu7_amd64.deb ...
Unpacking libaprutil1t64:amd64 (1.6.3-1.1ubuntu7) ...
Selecting previously unselected package libaprutil1-dbd-sqlite3:amd64.
```

Ahora vamos a instalar PHP y su modulo para Apache

```
3 de oct 08:03
root@UbuntuDesktop: /home/vboxuser

root@UbuntuDesktop:/home/vboxuser# sudo apt install php libapache2-mod-php -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  liblvm19
Use 'sudo apt autoremove' to remove it.
The following additional packages will be installed:
  libapache2-mod-php8.3 libsodium23 php-common php8.3 php8.3-cli php8.3-common php8.3-opcache php8.3-readline
Suggested packages:
  php-pear
The following NEW packages will be installed:
  libapache2-mod-php libapache2-mod-php8.3 libsodium23 php php-common php8.3 php8.3-cli php8.3-common php8.3-opcache
  php8.3-readline
0 upgraded, 10 newly installed, 0 to remove and 1 not upgraded.
Need to get 5.084 kB of archives.
After this operation, 22,8 MB of additional disk space will be used.
Get:1 http://es.archive.ubuntu.com/ubuntu noble/main amd64 php-common all 2:93ubuntu2 [13,9 kB]
Get:2 http://es.archive.ubuntu.com/ubuntu noble-updates/main amd64 php8.3-common amd64 8.3.6-0ubuntu0.24.04.5 [740 kB]
Get:3 http://es.archive.ubuntu.com/ubuntu noble-updates/main amd64 php8.3-opcache amd64 8.3.6-0ubuntu0.24.04.5 [371 kB]
Get:4 http://es.archive.ubuntu.com/ubuntu noble-updates/main amd64 php8.3-readline amd64 8.3.6-0ubuntu0.24.04.5 [13,5 kB]
Get:5 http://es.archive.ubuntu.com/ubuntu noble/main amd64 libsodium23 amd64 1.0.18-1build3 [161 kB]
Get:6 http://es.archive.ubuntu.com/ubuntu noble-updates/main amd64 php8.3-cli amd64 8.3.6-0ubuntu0.24.04.5 [1.915 kB]
Get:7 http://es.archive.ubuntu.com/ubuntu noble-updates/main amd64 libapache2-mod-php8.3 amd64 8.3.6-0ubuntu0.24.04.5 [1.851 kB]
Get:8 http://es.archive.ubuntu.com/ubuntu noble/main amd64 libapache2-mod-php all 2:8.3+93ubuntu2 [4.224 B]
Get:9 http://es.archive.ubuntu.com/ubuntu noble-updates/main amd64 php8.3 all 8.3.6-0ubuntu0.24.04.5 [9.174 B]
Get:10 http://es.archive.ubuntu.com/ubuntu noble/main amd64 php all 2:8.3+93ubuntu2 [4.076 B]
Fetched 5.084 kB in 1s (3.709 kB/s)
Selecting previously unselected package php-common.
(Reading database ... 152837 files and directories currently installed.)
Preparing to unpack .../0-php-common_2%3a93ubuntu2_all.deb
```

Ahora iniciamos el servidor de apache para ver cómo reacciona

```
root@UbuntuDesktop:/home/vboxuser# sudo service apache2 start
root@UbuntuDesktop:/home/vboxuser#
```

Comprobamos que apache está funcionando

(Sale que esta activo y corriendo)

```
root@UbuntuDesktop:/home/vboxuser# sudo 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 2025-10-03 08:03:58 UTC; 2min 33s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 18409 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
    Main PID: 18414 (apache2)
       Tasks: 6 (limit: 4603)
      Memory: 10.7M (peak: 11.3M)
         CPU: 67ms
    CGroup: /system.slice/apache2.service
            └─18414 /usr/sbin/apache2 -k start
              └─18417 /usr/sbin/apache2 -k start
                └─18418 /usr/sbin/apache2 -k start
                  └─18419 /usr/sbin/apache2 -k start
                    └─18420 /usr/sbin/apache2 -k start
                      └─18421 /usr/sbin/apache2 -k start

oct 03 08:03:58 UbuntuDesktop systemd[1]: Starting apache2.service - The Apache HTTP Server...
oct 03 08:03:58 UbuntuDesktop apachectl[18413]: AH00558: apache2: Could not reliably determine the server's fully qualified domain name, please see the documentation at http://httpd.apache.org/docs/2.4/using.html#hostname-lookup
oct 03 08:03:58 UbuntuDesktop systemd[1]: Started apache2.service - The Apache HTTP Server.
lines 1-20/20 (END)
```

## Creamos un archivo que muestre información del PHP

```
root@UbuntuDesktop:/home/vboxuser# echo "<?php phpinfo(); ?>" | sudo tee /var/www/html/info.php
<?php phpinfo(); ?>
root@UbuntuDesktop:/home/vboxuser#
```

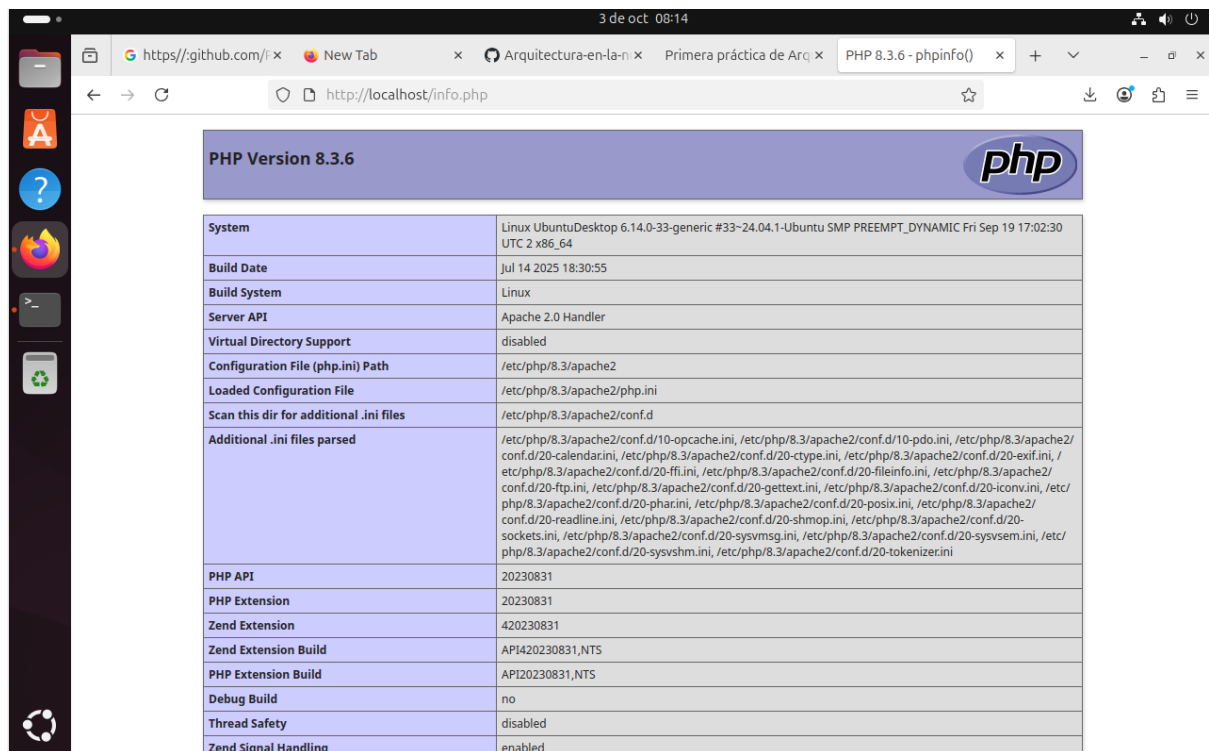
## Probamos el PHP desde el terminal

### Primero tenemos que instalar el curl

```
root@UbuntuDesktop:/home/vboxuser# apt install curl
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  libllvm19
Use 'sudo apt autoremove' to remove it.
The following NEW packages will be installed:
  curl
0 upgraded, 1 newly installed, 0 to remove and 1 not upgraded.
Need to get 226 kB of archives.
After this operation, 534 kB of additional disk space will be used.
Get:1 http://es.archive.ubuntu.com/ubuntu noble-updates/main amd64 curl amd64 8.5.0-2ubuntu10.6 [226 kB]
Fetched 226 kB in 1s (342 kB/s)
Selecting previously unselected package curl.
(Reading database ... 152977 files and directories currently installed.)
Preparing to unpack .../curl_8.5.0-2ubuntu10.6_amd64.deb ...
Unpacking curl (8.5.0-2ubuntu10.6) ...
Setting up curl (8.5.0-2ubuntu10.6) ...
Processing triggers for man-db (2.12.0-4build2) ...
root@UbuntuDesktop:/home/vboxuser# curl http://localhost/info.php
```

## Me permite ver el php

```
root@UbuntuDesktop:/home/vboxuser# curl http://localhost/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;}
.v {background-color: #ddd; max-width: 300px; overflow-x: auto; word-wrap: break-word;}
.v i {color: #999;}
img {float: right; border: 0;}
hr {width: 934px; background-color: #ccc; border: 0; height: 1px;}
:root {--php-dark-grey: #333; --php-dark-blue: #4F5B93; --php-medium-blue: #8892BF; --php-light-blue: #E2E4EF; --php-accent-purple: #793862}@media (prefers-color-scheme: dark) {
  body {background: var(--php-dark-grey); color: var(--php-light-blue)}
  .h td, td.e, th {border-color: #606A90}
  td {border-color: #505153}
  .v {background-color: #404A77}
  .p {background-color: var(--php-dark-blue)}
```



Instalamos ahora el servidor web Nginx

```
root@UbuntuDesktop:/home/vboxuser# sudo apt install nginx -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following package was automatically installed and is no longer required:
  libllvm19
Use 'sudo apt autoremove' to remove it.
The following additional packages will be installed:
  nginx-common
Suggested packages:
  fcgiwrap nginx-doc
The following NEW packages will be installed:
  nginx nginx-common
0 upgraded, 2 newly installed, 0 to remove and 1 not upgraded.
Need to get 564 kB of archives.
After this operation, 1.596 kB of additional disk space will be used.
Get:1 http://es.archive.ubuntu.com/ubuntu noble-updates/main amd64 nginx-common all 1.24.0-2ubuntu7.5 [43,4 kB]
Get:2 http://es.archive.ubuntu.com/ubuntu noble-updates/main amd64 nginx amd64 1.24.0-2ubuntu7.5 [520 kB]
Fetched 564 kB in 0s (1.702 kB/s)
Preconfiguring packages ...
Selecting previously unselected package nginx-common.
(Reading database ... 152984 files and directories currently installed.)
Preparing to unpack .../nginx-common_1.24.0-2ubuntu7.5_all.deb ...
Unpacking nginx-common (1.24.0-2ubuntu7.5) ...
Selecting previously unselected package nginx.
Preparing to unpack .../nginx_1.24.0-2ubuntu7.5_amd64.deb ...
Unpacking nginx (1.24.0-2ubuntu7.5) ...
```

Comprobamos que Nginx está funcionando



(me daba error, pero tenía que parar apache y volver a levantar nginx para que funcionara)

```
3 de oct 08:21
root@UbuntuDesktop: /home/vboxuser

oct 03 08:16:04 UbuntuDesktop nginx[19499]: nginx: [emerg] bind() to 0.0.0.0:80 failed (98: Address already in use)
oct 03 08:16:04 UbuntuDesktop nginx[19499]: nginx: [emerg] bind() to [::]:80 failed (98: Address already in use)
oct 03 08:16:05 UbuntuDesktop nginx[19499]: nginx: [emerg] bind() to 0.0.0.0:80 failed (98: Address already in use)
oct 03 08:16:05 UbuntuDesktop nginx[19499]: nginx: [emerg] bind() to [::]:80 failed (98: Address already in use)
oct 03 08:16:05 UbuntuDesktop nginx[19499]: nginx: [emerg] still could not bind()
oct 03 08:16:05 UbuntuDesktop systemd[1]: nginx.service: Control process exited, code=exited, status=1/FAILURE
oct 03 08:16:05 UbuntuDesktop systemd[1]: nginx.service: Failed with result 'exit-code'.
oct 03 08:16:05 UbuntuDesktop systemd[1]: Failed to start nginx.service - A high performance web server and a reverse proxy server.

root@UbuntuDesktop: /home/vboxuser# sudo systemctl start nginx
root@UbuntuDesktop: /home/vboxuser# sudo 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 2025-10-03 08:20:55 UTC; 2s ago
     Docs: man:nginx(8)
   Process: 19673 ExecStartPre=/usr/sbin/nginx -t -q -g daemon on; master_process on; (code=exited, status=0/SUCCESS)
   Process: 19675 ExecStart=/usr/sbin/nginx -g daemon on; master_process on; (code=exited, status=0/SUCCESS)
   Main PID: 19676 (nginx)
    Tasks: 5 (limit: 4603)
   Memory: 3.7M (peak: 4.1M)
      CPU: 17ms
   CGroup: /system.slice/nginx.service
           └─19676 "nginx: master process /usr/sbin/nginx -g daemon on; master_process on;"
             └─19677 "nginx: worker process"
               └─19678 "nginx: worker process"
                 └─19679 "nginx: worker process"
                   └─19680 "nginx: worker process"

oct 03 08:20:55 UbuntuDesktop systemd[1]: Starting nginx.service - A high performance web server and a reverse proxy server.
oct 03 08:20:55 UbuntuDesktop systemd[1]: Started nginx.service - A high performance web server and a reverse proxy server.

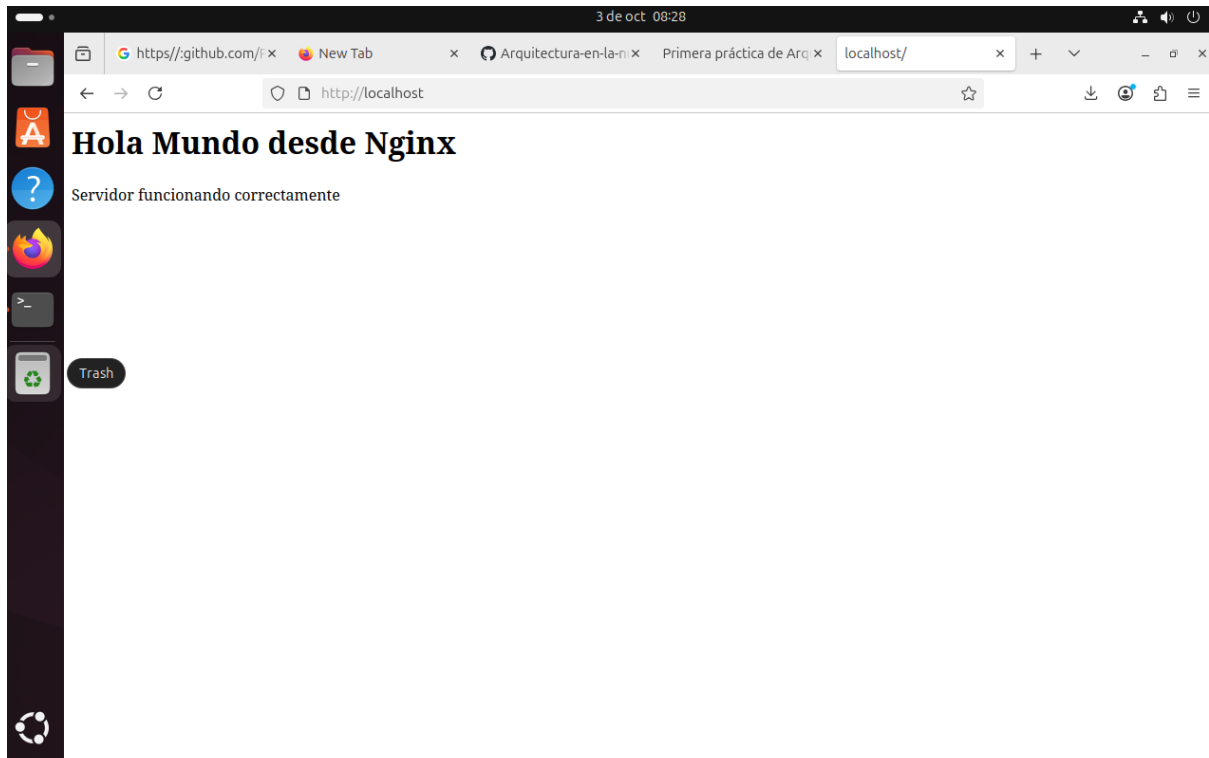
root@UbuntuDesktop: /home/vboxuser#
```

Ahora hay que crear una página web simple

```
root@UbuntuDesktop: /home/vboxuser# echo "<h1>Hola Mundo desde Nginx</h1><p>Servidor funcionando correctamente</p>" | sudo tee /var/www/html/index.html
<h1>Hola Mundo desde Nginx</h1><p>Servidor funcionando correctamente</p>
root@UbuntuDesktop: /home/vboxuser#
```



Probamos la página html desde la terminal



Mostrar la IP para acceso desde Windows.

```
root@UbuntuDesktop:/home/vboxuser# ip -brief addr show
lo                UNKNOWN      127.0.0.1/8 ::1/128
enp0s3            UP          10.0.2.15/24 fd17:625c:f037:2:b004:bf08:5603:77f6/64 fd17:625c:f037:2:a00:27ff:fe06:45ee/64 fe80::a00:27ff:fe06:45ee/64
root@UbuntuDesktop:/home/vboxuser#
```