

## fase 1, instalación del sistema base

### instalación de ubuntu

The image shows two parts of a computer screen. The top part is a web browser displaying the Ubuntu Server download page. The browser's address bar shows 'https://ubuntu.com/download/server'. The page has a dark navigation bar with links like 'Productos', 'Casos de uso', 'Apoyo', 'Comunidad', 'Descargar Ubuntu', 'Todo canónico', and 'Sign in'. Below this, there's a section for 'Ubuntu Server' with a sub-header 'Ubuntu 24.04.2 LTS'. A green button labeled 'Descargar 24.04.2 LTS' with '3GB' next to it is prominent. There are also links for 'Descargas alternativas' and 'Arquitecturas alternativas'. The bottom part of the screenshot is a window titled 'Crear máquina virtual' (Create virtual machine). It has a sidebar with a plant illustration. The main area is titled 'Nombre y sistema operativo de la máquina virtual' (Name and operating system of the virtual machine). It contains several fields: 'Nombre' (Name) with the value 'practicas ubuntu server', 'Carpeta' (Folder) with the value '/home/oscar-portatil/VirtualBox VMs', 'Imagen ISO' (ISO Image) with the value '<no seleccionado>', 'Edición' (Edition) with a dropdown menu, 'Tipo' (Type) with the value 'Linux', 'Subtype' (Subtype) with the value 'Ubuntu', and 'Versión' (Version) with the value 'Ubuntu (64-bit)'. There is a checkbox for 'Omitir instalación desatendida' (Skip unattended installation) which is unchecked. At the bottom, there is a message: 'No hay imagen ISO seleccionada, el SO invitado será necesario instalarlo manualmente.' (No ISO image selected, the guest OS will need to be installed manually). Navigation buttons at the bottom include 'Ayuda' (Help), 'Anterior' (Previous), 'Siguiente' (Next), and 'Cancelar' (Cancel).

La última versión LTS de Ubuntu Server. LTS representa el soporte a largo plazo, lo que significa cinco años de actualizaciones gratuitas de seguridad y mantenimiento extendida a 10 años con [Ubuntu Pro](#).

**Descargar 24.04.2 LTS** 3GB

[Descargas alternativas](#)

[Arquitecturas alternativas](#)

Lo nuevo Requisitos del sistema Cómo instalar

### Crear máquina virtual

#### Nombre y sistema operativo de la máquina virtual

Seleccione un nombre descriptivo y carpeta destino para la nueva máquina virtual. El nombre que seleccione será usado por VirtualBox para identificar esta máquina. Adicionalmente, puede seleccionar una imagen ISO que puede ser usada para instalar el sistema operativo invitado.

**Nombre:** practicas ubuntu server

**Carpeta:** /home/oscar-portatil/VirtualBox VMs

**Imagen ISO:** <no seleccionado>

**Edición:**

**Tipo:** Linux

**Subtype:** Ubuntu

**Versión:** Ubuntu (64-bit)

☐ Omitir instalación desatendida

**No hay imagen ISO seleccionada, el SO invitado será necesario instalarlo manualmente.**

[Ayuda](#) [Anterior](#) [Siguiente](#) [Cancelar](#)

zona horaria correcta

```

oscar@srv-base-oscarhernandez:~$ sudo timedatectl set-timezone europe/madrid
[sudo] password for oscar:
Failed to set time zone: Invalid or not installed time zone 'europe/madrid'
oscar@srv-base-oscarhernandez:~$ sudo timedatectl set-timezone Europe/Madrid
oscar@srv-base-oscarhernandez:~$ timedatectl
          Local time: sáb 2025-06-21 17:02:10 CEST
          Universal time: sáb 2025-06-21 15:02:10 UTC
              RTC time: sáb 2025-06-21 15:02:10
          Time zone: Europe/Madrid (CEST, +0200)
System clock synchronized: no
          NTP service: active
          RTC in local TZ: no
oscar@srv-base-oscarhernandez:~$ _

```

nombre del host

```

oscar@srv-base-oscarhernandez:~$ hostname
srv-base-oscarhernandez
oscar@srv-base-oscarhernandez:~$ _

```

actualiza sus paquetes apt update && apt upgrade

```

Running kernel seems to be up-to-date.

Restarting services...
/etc/needrestart/restart.d/systemd-manager
systemctl restart multipathd.service udisks2.service

Service restarts being deferred:
/etc/needrestart/restart.d/dbus.service
systemctl restart unattended-upgrades.service

No containers need to be restarted.

User sessions running outdated binaries:
oscar @ session #1: apt[1330]
oscar @ user manager service: systemd[1004]

No VM guests are running outdated hypervisor (qemu) binaries on this host.
oscar@srv-base-oscarhernandez:~$

```

## fase 2, configuración de la red y acceso remoto

configuración de una ip estática

```

network:
  version: 2
  ethernet:
    enp0s3:
      dhcp4: no
      addresses:
        - 192.168.1.5/24
      routes:
        - to: default
          via: 192.168.1.1
      nameservers:
        addresses: [8.8.8.8, 8.8.4.4]

```

configurar el archivo /etc/hosts con el nombre del servidor

```

127.0.0.1 localhost
127.0.1.1 srv-base-oscarhernandez

# 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

```

instalar y configurar sistema ssh

```

oscar@srv-base-oscarhernandez:/etc$ cd ..
oscar@srv-base-oscarhernandez:/$ sudo systemctl status ssh
• ssh.service - OpenBSD Secure Shell server
  Loaded: loaded (/usr/lib/systemd/system/ssh.service; disabled; preset: enabled)
  Active: active (running) since Sat 2025-06-21 19:12:06 CEST; 4min 34s ago
  TriggeredBy: • ssh.socket
    Docs: man:sshd(8)
          man:sshd_config(5)
  Process: 1155 ExecStartPre=/usr/sbin/sshd -t (code=exited, status=0/SUCCESS)
  Main PID: 1156 (sshd)
    Tasks: 1 (limit: 2267)
  Memory: 2.3M (peak: 5.1M)
    CPU: 122ms
  CGroup: /system.slice/ssh.service
          └─1156 "sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups"

jun 21 19:12:06 srv-base-oscarhernandez systemd[1]: Starting ssh.service - OpenBSD Secure Shell s
jun 21 19:12:06 srv-base-oscarhernandez sshd[1156]: Server listening on :: port 22.
jun 21 19:12:06 srv-base-oscarhernandez systemd[1]: Started ssh.service - OpenBSD Secure Shell s
jun 21 19:12:23 srv-base-oscarhernandez sshd[1158]: Accepted password for oscar from 192.168.1.16
jun 21 19:12:23 srv-base-oscarhernandez sshd[1158]: pam_unix(sshd:session): session opened for us
oscar@srv-base-oscarhernandez:/$ _

```

verificar conexion con otro sistema con ssh

```
C:\Users\oscar>ssh oscar@192.168.1.5
The authenticity of host '192.168.1.5 (192.168.1.5)' can't be established.
ED25519 key fingerprint is SHA256:IMQWHDJEwr1VeKPFonLVZWZbSZf0PkDsnaSguYK+ks.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '192.168.1.5' (ED25519) to the list of known hosts.
oscar@192.168.1.5's password:
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-62-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:        https://ubuntu.com/pro

System information as of sáb 21 jun 2025 19:12:23 CEST

System load:  0.0          Processes:           115
Usage of /:   32.4% of 14.04GB Users logged in:       1
Memory usage: 10%         IPv4 address for enp0s3: 192.168.1.5
Swap usage:   0%

El mantenimiento de seguridad expandido para Applications está desactivado
Se pueden aplicar 0 actualizaciones de forma inmediata.
Active ESM Apps para recibir futuras actualizaciones de seguridad adicionales.
Vea https://ubuntu.com/esm o ejecute «sudo pro status»

oscar@srv-base-oscarhernandez:~$
```

### fase 3, seguridad minima obligatoria

instalar firewall

```
oscar@ubuntupracticass:~$ sudo ufw status
Status: active

To Action From
--
22/tcp ALLOW Anywhere
80/tcp ALLOW Anywhere
443 ALLOW Anywhere
8080 ALLOW Anywhere
22/tcp (v6) ALLOW Anywhere (v6)
80/tcp (v6) ALLOW Anywhere (v6)
443 (v6) ALLOW Anywhere (v6)
8080 (v6) ALLOW Anywhere (v6)

oscar@ubuntupracticass:~$ sudo ufwreload
sudo: ufwreload: command not found
oscar@ubuntupracticass:~$ sudo ufw reload
Firewall reloaded
oscar@ubuntupracticass:~$
```

crear un usuario llamado desarrollador con permiso limitados

```

oscar@srv-base-oscarhernandez:/$ sudo adduser desarrollador
info: Adding user `desarrollador' ...
info: Selecting UID/GID from range 1000 to 59999 ...
info: Adding new group `desarrollador' (1007) ...
info: Adding new user `desarrollador' (1007) with group `desarrollador (1007)' ...
info: Creating home directory `/home/desarrollador' ...
info: Copying files from `/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for desarrollador
Enter the new value, or press ENTER for the default
  Full Name []:
  Room Number []:
  Work Phone []:
  Home Phone []:
  Other []:
Is the information correct? [Y/n] y
info: Adding new user `desarrollador' to supplemental / extra groups `users' ...
info: Adding user `desarrollador' to group `users' ...
oscar@srv-base-oscarhernandez:/$

```

cambiar el puerto por defecto de ssh a 222 y reforzar la configuracion de /etc/ssh/sshd\_config

```

Port 2222
#AddGroupFamily sv
#PermitRootLogin no_
#LoginGraceTime 30_
#MaxAuthTries 3

oscar@srv-base-oscarhernandez:~$ sudo nmap -sT -p 2222 localhost
[sudo] password for oscar:
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-06-21 19:58 CEST
Nmap scan report for localhost (127.0.0.1)
Host is up (0.0014s latency).

PORT      STATE SERVICE
2222/tcp  open  EtherNetIP-1

Nmap done: 1 IP address (1 host up) scanned in 0.08 seconds
oscar@srv-base-oscarhernandez:~$

```

## fase 4 estructura de carpetas y servicios iniciales

crea las carpetas www, repositorio, docs

```

oscar@srv-base-oscarhernandez:/srv$ ls
docs  repositorios  www
oscar@srv-base-oscarhernandez:/srv$ _

```

el usuario desarrollador solo puede escribir en www

```

oscar@srv-base-oscarhernandez:/$ ls -ld /srv/www
drwx----- 2 desarrollador desarrollador 4096 jun 21 20:01 /srv/www
oscar@srv-base-oscarhernandez:/$

```

instalar servidor web apache

```
oscar@srv-base-oscarhernandez:/$ 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 Sat 2025-06-21 20:25:03 CEST; 2min 23s ago
    Docs: https://httpd.apache.org/docs/2.4/
  Main PID: 2059 (apache2)
    Tasks: 55 (limit: 2267)
  Memory: 5.2M (peak: 5.5M)
    CPU: 114ms
  CGroup: /system.slice/apache2.service
          └─2059 /usr/sbin/apache2 -k start
            └─2061 /usr/sbin/apache2 -k start
              └─2062 /usr/sbin/apache2 -k start

jun 21 20:25:03 srv-base-oscarhernandez systemd[1]: Starting apache2.service - The Apache HTTP Server
jun 21 20:25:03 srv-base-oscarhernandez apachectl[2058]: AH00558: apache2: Could not r
jun 21 20:25:03 srv-base-oscarhernandez systemd[1]: Started apache2.service - The Apache HTTP Server

oscar@srv-base-oscarhernandez:/$ _
```