

```
PS C:\WINDOWS\system32> wsl.exe --install Ubuntu
y "wsl.exe --install <Distro>" para instalar.
PS C:\WINDOWS\system32> wsl.exe --install Ubuntu
Descargando: Ubuntu
Instalando: Ubuntu
Distribución instalada correctamente. Se puede iniciar a través de "wsl.exe -d Ubuntu"
Iniciando Ubuntu...
Provisioning the new WSL instance Ubuntu
This might take a while...
Create a default Unix user account: lumno18

Create a default Unix user account: lumno18
New password:
Retype new password:
passwd: password updated successfully
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$
```

Iniciamos WSL y creamos una contraseña

```
[sudo] password for lumno18:
Hit:1 http://archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [1171 kB]
Get:5 http://archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:6 http://archive.ubuntu.com/ubuntu noble/universe amd64 Packages [15.0 MB]
Get:7 http://security.ubuntu.com/ubuntu noble-security/main Translation-en [198 kB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [21.6 kB]
```

Actualizamos los paquetes del sistema

instalamos el servidor web de apache y PHP y su módulo para Apache. Iniciamos los servicios y comprobamos que Apache está funcionando.

```
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo apt install php libapache2-mod-php -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libapache2-mod-php8.3 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 php php-common php8.3 php8.3-cli php8.3-common php8.3-opcache
  php8.3-readline
0 upgraded, 9 newly installed, 0 to remove and 39 not upgraded.
Need to get 4922 kB of archives.
After this operation, 22.4 MB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu noble/main amd64 php-common all 2:93ubuntu2 [13.9 kB]
Get:2 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 php8.3-common amd64 8.3.6-0ubuntu0.24.04.5 [740 kB]
Get:3 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 php8.3-opcache amd64 8.3.6-0ubuntu0.24.04.5 [371 kB]
Get:4 http://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://archive.ubuntu.com/ubuntu noble-updates/main amd64 php8.3-cli amd64 8.3.6-0ubuntu0.24.04.5 [1915 kB]
Get:6 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libapache2-mod-php8.3 amd64 8.3.6-0ubuntu0.24.04.5 [185 kB]
Get:7 http://archive.ubuntu.com/ubuntu noble/main amd64 libapache2-mod-php all 2:8.3+93ubuntu2 [4224 B]
Get:8 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 php8.3 all 8.3.6-0ubuntu0.24.04.5 [9174 B]
Get:9 http://archive.ubuntu.com/ubuntu noble/main amd64 php all 2:8.3+93ubuntu2 [4076 B]
Fetched 4922 kB in 1s (4176 kB/s)
Selecting previously unselected package php-common.
(Reading database ... 41479 files and directories currently installed.)
Preparing to unpack .../0-php-common_2%3a93ubuntu2_all.deb ...

```

```
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo service apache2 start
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ 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 Tue 2025-09-30 14:37:36 CEST; 4min 13s ago
     Docs: https://httpd.apache.org/docs/2.4/
 Process: 7945 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
 Main PID: 7948 (apache2)
    Tasks: 6 (limit: 9350)
   Memory: 10.5M (peak: 12.2M)
      CPU: 52ms
     CGroup: /system.slice/apache2.service
             └─7948 /usr/sbin/apache2 -k start
                 ├─7950 /usr/sbin/apache2 -k start
                 ├─7951 /usr/sbin/apache2 -k start
                 ├─7953 /usr/sbin/apache2 -k start
                 ├─7954 /usr/sbin/apache2 -k start
                 ├─7955 /usr/sbin/apache2 -k start

Sep 30 14:37:36 A6Alumno18 systemd[1]: Starting apache2.service - The Apache HTTP Server...
Sep 30 14:37:36 A6Alumno18 systemd[1]: Started apache2.service - The Apache HTTP Server.
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$
```

```
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ 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;}
```

Por ultimo hacemos un curl para verificar en el navegador el archivo PHP.

Ahora hacemos la instalación de nginx. Primero habiendo hecho un update para que todo funcione correctamente.

```
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo apt install nginx -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
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 39 not upgraded.
Need to get 564 kB of archives.
After this operation, 1596 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 nginx-common all 1.24.0-2ubuntu7.5 [43.4 kB]
Get:2 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 nginx amd64 1.24.0-2ubuntu7.5 [520 kB]
Fetched 564 kB in 1s (540 kB/s)
Preconfiguring packages ...
Selecting previously unselected package nginx-common.
(Reading database ... 41611 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) ...
```

```
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32
0 upgraded, 0 newly installed, 0 to remove and 17 not upgraded.
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo service nginx start
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ 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 Tue 2025-10-07 08:32:29 CEST; 4min 3s ago
       Docs: man:nginx(8)
   Main PID: 226 (nginx)
      Tasks: 17 (limit: 9350)
     Memory: 13.1M (peak: 14.3M)
        CPU: 40ms
      CGroup: /system.slice/nginx.service
              ├─226 "nginx: master process /usr/sbin/nginx -g daemon on; master_process on;"
              ├─228 "nginx: worker process"
              ├─229 "nginx: worker process"
              ├─231 "nginx: worker process"
              ├─232 "nginx: worker process"
              ├─233 "nginx: worker process"
              ├─235 "nginx: worker process"
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              ├─244 "nginx: worker process"
              ├─245 "nginx: worker process"
              ├─246 "nginx: worker process"
              ├─248 "nginx: worker process"
              └─249 "nginx: worker process"
```

```
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ echo "<h1>Hola Mundo desde Nginx</h1><p>Servidor funcionando correctamente</p>" | sudo tee /var/www/html/index.html
[sudo] password for alumno18:
<h1>Hola Mundo desde Nginx</h1><p>Servidor funcionando correctamente</p>
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$
```

```
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ curl http://localhost
<h1>Hola Mundo desde Nginx</h1><p>Servidor funcionando correctamente</p>
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$
```

Con este curl verificamos en el navegador que la página HTML funcione bien desde la terminal

```
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ ip addr show eth0 | grep inet
  inet 172.24.200.116/20 brd 172.24.207.255 scope global eth0
    inet6 fe80::215:5dff:fe43:9b8/64 scope link
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$
```

Aquí vemos la IP para el acceso desde windows

DOCKER:

Instalación de docker

```
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo apt update
[sudo] password for alumno18:
Hit:1 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:2 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:4 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
19 packages can be upgraded. Run 'apt list --upgradable' to see them.
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo apt upgrade -y
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 packages will be upgraded:
  cloud-init coreutils dconf-gsettings-backend dconf-service landscape-client landscape-common libdconf1
    libegl-mesa0 libgbm1 libgl1-mesa-dri libglx-mesa0 libssl3t64 mesa-libgallium mesa-vulkan-drivers openssh-client
    openssl python3-software-properties software-properties-common systemd-hwe-hwdb
19 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
2 standard LTS security updates
Need to get 59.8 MB/62.7 MB of archives.
After this operation, 144 MB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 coreutils amd64 9.4-3ubuntu6.1 [1413 kB]
Get:2 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 systemd-hwe-hwdb all 255.1.5 [3518 B]
Get:3 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 openssh-client amd64 1:9.6p1-3ubuntu13.14 [906 kB]
Get:4 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 dconf-gsettings-backend amd64 0.40.0-4ubuntu0.1 [22.1 kB]
Get:5 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 dconf-service amd64 0.40.0-4ubuntu0.1 [27.6 kB]
Get:6 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libdconf1 amd64 0.40.0-4ubuntu0.1 [39.6 kB]
Get:7 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 landscape-client amd64 24.02-0ubuntu5.6 [124 kB]
Get:8 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 landscape-common amd64 24.02-0ubuntu5.6 [93.2 kB]
Get:9 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libgl1-mesa-dri amd64 25.0.7-0ubuntu0.24.04.2 [35.8 kB]
Get:10 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libglx-mesa0 amd64 25.0.7-0ubuntu0.24.04.2 [141 kB]
Get:11 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libllvm20 amd64 1:20.1.2-0ubuntu1~24.04.2 [30.6 MB]
Get:12 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libegl-mesa0 amd64 25.0.7-0ubuntu0.24.04.2 [124 kB]
Get:13 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libgbm1 amd64 25.0.7-0ubuntu0.24.04.2 [32.7 kB]
Get:14 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 mesa-libgallium amd64 25.0.7-0ubuntu0.24.04.2 [10.3 kB]

lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo apt install apt-transport-https ca-certificates curl software-properties-common -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
ca-certificates is already the newest version (20240203).
ca-certificates set to manually installed.
curl is already the newest version (8.5.0-2ubuntu10.6).
curl set to manually installed.
software-properties-common is already the newest version (0.99.49.3).
software-properties-common set to manually installed.
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:
  apt-transport-https
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 3970 B of archives.
After this operation, 36.9 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu noble-updates/universe amd64 apt-transport-https all 2.8.3 [3970 B]
Fetched 3970 B in 0s (41.1 kB/s)
Selecting previously unselected package apt-transport-https.
(Reading database ... 41669 files and directories currently installed.)
Preparing to unpack .../apt-transport-https_2.8.3_all.deb ...
Unpacking apt-transport-https (2.8.3) ...
Setting up apt-transport-https (2.8.3) ...
```

```
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ echo "deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyrings/docker-archive-keyring.gpg] \nhttps://download.docker.com/linux/ubuntu $(lsb_release -cs) stable" | \nsudo tee /etc/apt/sources.list.d/docker.list >/dev/null\nlumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo apt update\nGet:1 https://download.docker.com/linux/ubuntu noble InRelease [48.8 kB]\nGet:2 https://download.docker.com/linux/ubuntu noble/stable amd64 Packages [32.1 kB]\nHit:3 http://security.ubuntu.com/ubuntu noble-security InRelease\nHit:4 http://archive.ubuntu.com/ubuntu noble InRelease\nHit:5 http://archive.ubuntu.com/ubuntu noble-updates InRelease\nHit:6 http://archive.ubuntu.com/ubuntu noble-backports InRelease\nFetched 81.0 kB in 1s (158 kB/s)\nReading package lists... Done\nBuilding dependency tree... Done\nReading state information... Done\nAll packages are up to date.\nlumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo apt install docker-ce docker-ce-cli containerd.io -y\nReading package lists... Done\nBuilding dependency tree... Done\nReading state information... Done\nThe following package was automatically installed and is no longer required:\n  libllvm19\nUse 'sudo apt autoremove' to remove it.\nThe following additional packages will be installed:\n  docker-buildx-plugin docker-ce-rootless-extras docker-compose-plugin iptables libip4tc2 libip6tc2\n  libnetfilter-contrack3 libnftnetlink0 libnftables1 libnftnl11 libslirp0 nftables pigz slirp4netns\nSuggested packages:\n  cgroupfs-mount | cgroup-lite docker-model-plugin firewalld\nThe following NEW packages will be installed:\n  containerd.io docker-buildx-plugin docker-ce docker-ce-rootless-extras docker-compose-plugin\n  iptables libip4tc2 libip6tc2 libnetfilter-contrack3 libnftnetlink0 libnftables1 libnftnl11 libslirp0 nftables\n  pigz slirp4netns\n0 upgraded, 17 newly installed, 0 to remove and 0 not upgraded.\nNeed to get 106 MB of archives.\nAfter this operation, 441 MB of additional disk space will be used.\nGet:1 https://download.docker.com/linux/ubuntu noble/stable amd64 containerd.io amd64 1.7.28-0~ubuntu.24.04~noble [31.9 MB]\nGet:2 http://archive.ubuntu.com/ubuntu noble/main amd64 libip4tc2 amd64 1.8.10-3ubuntu2 [23.3 kB]\nGet:3 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-ce-cli amd64 5:28.5.0-1~ubuntu.24.04~noble [16.4 MB]\nGet:4 http://archive.ubuntu.com/ubuntu noble/main amd64 libip6tc2 amd64 1.8.10-3ubuntu2 [23.7 kB]\nGet:5 http://archive.ubuntu.com/ubuntu noble/main amd64 libnftnetlink0 amd64 1.0.2-2build1 [14.8 kB]\nGet:6 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-ce amd64 5:28.5.0-1~ubuntu.24.04~noble [19.7 MB]\nGet:7 http://archive.ubuntu.com/ubuntu noble/main amd64 libnetfilter-contrack3 amd64 1.0.9-6build1 [45.2 kB]\nGet:8 http://archive.ubuntu.com/ubuntu noble/main amd64 libnftnl11 amd64 1.2.6-2build1 [66.0 kB]\nGet:9 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-buildx-plugin amd64 0.29.1-1~ubuntu.24.04~noble [15.9 MB]\nGet:10 http://archive.ubuntu.com/ubuntu noble/main amd64 iptables amd64 1.8.10-3ubuntu2 [381 kB]\nGet:11 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-ce-rootless-extras amd64 5:28.5.0-1~ubuntu.24.04~noble [6479 kB]\nGet:12 https://download.docker.com/linux/ubuntu noble/stable amd64 docker-compose-plugin amd64 2.40.0-1~ubuntu.24.04~noble [14.2 MB]\nGet:13 http://archive.ubuntu.com/ubuntu noble/universe amd64 pigz amd64 2.8-1 [65.6 kB]\nGet:14 http://archive.ubuntu.com/ubuntu noble/main amd64 libnftables1 amd64 1.0.9-1build1 [358 kB]\nGet:15 http://archive.ubuntu.com/ubuntu noble/main amd64 nftables amd64 1.0.9-1build1 [69.8 kB]\nGet:16 http://archive.ubuntu.com/ubuntu noble/main amd64 libslirp0 amd64 4.7.0-1ubuntu3 [63.8 kB]\nGet:17 http://archive.ubuntu.com/ubuntu/nobuntu/universe amd64 slirp4netns amd64 1.2.1-1build2 [34.9 kB]\nFetched 106 MB in 1s (89.7 MB/s)\nSelecting previously unselected package containerd.io.\n(Reading database ... 41673 files and directories currently installed.)\nPreparing to unpack .../00-containerd.io_1.7.28-0~ubuntu.24.04~noble_amd64.deb ...
```

```
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo apt install docker-buildx-plugin docker-compose-plugin -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
docker-buildx-plugin is already the newest version (0.29.1-1~ubuntu.24.04~noble).
docker-buildx-plugin set to manually installed.
docker-compose-plugin is already the newest version (2.40.0-1~ubuntu.24.04~noble).
docker-compose-plugin set to manually installed.
The following package was automatically installed and is no longer required:
  libllvm19
Use 'sudo apt autoremove' to remove it.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo systemctl status docker
● docker.service - Docker Application Container Engine
   Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; preset: enabled)
     Active: active (running) since Tue 2025-10-07 09:20:55 CEST; 1min 45s ago
TriggeredBy: ● docker.socket
   Docs: https://docs.docker.com
 Main PID: 2517 (dockerd)
    Tasks: 12
      Memory: 22.7M (peak: 25.4M)
        CPU: 237ms
      CGroup: /system.slice/docker.service
              └─2517 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock

Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.325568334+02:00" level=info msg="CDI directory d
Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.334025322+02:00" level=info msg="Creating a cont
Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.389845570+02:00" level=info msg="Loading contain
Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.582774886+02:00" level=info msg="Loading contain
Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.637111428+02:00" level=info msg="Docker daemon"
Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.637976252+02:00" level=info msg="Initializing bu
Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.663829737+02:00" level=info msg="Completed build
Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.668664548+02:00" level=info msg="Daemon has comp
Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.668755757+02:00" level=info msg="API listen on /
Oct 07 09:20:55 A6Alumno18 systemd[1]: Started docker.service - Docker Application Container Engine.
...skipping...
● docker.service - Docker Application Container Engine
   Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; preset: enabled)
     Active: active (running) since Tue 2025-10-07 09:20:55 CEST; 1min 45s ago
TriggeredBy: ● docker.socket
   Docs: https://docs.docker.com
 Main PID: 2517 (dockerd)
    Tasks: 12
      Memory: 22.7M (peak: 25.4M)
        CPU: 237ms
      CGroup: /system.slice/docker.service
              └─2517 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock

Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.325568334+02:00" level=info msg="CDI directory d
Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.334025322+02:00" level=info msg="Creating a cont
Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.389845570+02:00" level=info msg="Loading contain
Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.582774886+02:00" level=info msg="Loading contain
Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.637111428+02:00" level=info msg="Docker daemon"
Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.637976252+02:00" level=info msg="Initializing bu
Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.663829737+02:00" level=info msg="Completed build
Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.668664548+02:00" level=info msg="Daemon has comp
Oct 07 09:20:55 A6Alumno18 dockerd[2517]: time="2025-10-07T09:20:55.668755757+02:00" level=info msg="API listen on /
Oct 07 09:20:55 A6Alumno18 systemd[1]: Started docker.service - Docker Application Container Engine.
~
```

```
[1]+  Stopped                  sudo systemctl status docker
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo docker info
Client: Docker Engine - Community
  Version: 28.5.0
  Context: default
  Debug Mode: false
  Plugins:
    buildx: Docker Buildx (Docker Inc.)
      Version: v0.29.1
      Path: /usr/libexec/docker/cli-plugins/docker-buildx
    compose: Docker Compose (Docker Inc.)
      Version: v2.40.0
      Path: /usr/libexec/docker/cli-plugins/docker-compose

Server:
  Containers: 0
    Running: 0
    Paused: 0
    Stopped: 0
  Images: 1
  Server Version: 28.5.0
  Storage Driver: overlay2
    Backing Filesystem: extfs
    Supports d_type: true
    Using metacopy: false
    Native Overlay Diff: true
    userxattr: false
  Logging Driver: json-file
  Cgroup Driver: systemd
  Cgroup Version: 2
  Plugins:
    Volume: local
    Network: bridge host ipvlan macvlan null overlay
    Log: awslogs fluentd gcplogs gelf journald json-file local splunk syslog
  CDI spec directories:
    /etc/cdi
    /var/run/cdi
  Swarm: inactive
  Runtimes: runc io.containerd.runc.v2
  Default Runtime: runc
  Init Binary: docker-init
  containerd version: b98a3aace656320842a23f4a392a33f46af97866
  runc version: v1.3.0-0-g4ca628d1
  init version: de40ad0
  Security Options:
    seccomp
      Profile: builtin
      cgroupsns
  Kernel Version: 6.6.87.2-microsoft-standard-WSL2
  Operating System: Ubuntu 24.04.3 LTS
  OSType: linux
```

```
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo docker run -it ubuntu /bin/bash
root@20f546cfc8e:# sudo docker exec -it CONTAINER_ID /bin/bash
bash: sudo: command not found
root@20f546cfc8e:# exit
exit
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo docker ps
CONTAINER ID   IMAGE   COMMAND   CREATED   STATUS    PORTS      NAMES
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo docker ps -a
CONTAINER ID   IMAGE   COMMAND   CREATED   STATUS    PORTS      NAMES
20f546cfc8e   ubuntu   "/bin/bash" 4 minutes ago   Exited (127) About a minute ago
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo docker exec -it 20f546cfc8e /bin/bash
Error response from daemon: container 20f546cfc8e4692795c44f2875662780a5a839440885960f3a0d50
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo docker start 20f546cfc8e
20f546cfc8e
lumno18@A6Alumno18:/mnt/c/WINDOWS/system32$ sudo docker exec -it 20f546cfc8e /bin/bash
root@20f546cfc8e:#
```

En esta ruta volvemos a seguir todos los pasos de instalacion al igual que en wsl:

```
root@20f546cbcb8e:/# apt update
Get:1 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:2 http://archive.ubuntu.com/ubuntu noble InRelease [256 kB]
Get:3 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [1519 kB]
Get:4 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:5 http://archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:6 http://archive.ubuntu.com/ubuntu noble/main amd64 Packages [1808 kB]
Get:7 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [34.6 kB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [1138 kB]
Get:9 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [2478 kB]
Get:10 http://archive.ubuntu.com/ubuntu noble/restricted amd64 Packages [117 kB]
Get:11 http://archive.ubuntu.com/ubuntu noble/universe amd64 Packages [19.3 MB]
Get:12 http://archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [331 kB]
Get:13 http://archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1925 kB]
Get:14 http://archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [2625 kB]
Get:15 http://archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [38.9 kB]
Get:16 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [1887 kB]
Get:17 http://archive.ubuntu.com/ubuntu noble-backports/main amd64 Packages [49.4 kB]
Get:18 http://archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [33.9 kB]
Fetched 33.9 MB in 3s (11.8 MB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
1 package can be upgraded. Run 'apt list --upgradable' to see it.
root@20f546cbcb8e:/# apt upgrade -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following packages will be upgraded:
  libssl3t64
1 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
Need to get 1940 kB of archives.
After this operation, 0 B of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libssl3t64 amd64 3.0.13-0ubuntu1
Fetched 1940 kB in 1s (1770 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
(Reading database ... 4381 files and directories currently installed.)
Preparing to unpack .../libssl3t64_3.0.13-0ubuntu3.6_amd64.deb ...
Unpacking libssl3t64:amd64 (3.0.13-0ubuntu3.6) over (3.0.13-0ubuntu3.5) ...
Setting up libssl3t64:amd64 (3.0.13-0ubuntu3.6) ...
Processing triggers for libc-bin (2.39-0ubuntu8.6) ...
root@20f546cbcb8e:/# apt install apache2 -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  adduser apache2-bin apache2-data apache2-utils ca-certificates krb5-locales libapr1t64 libaprutil1-ldap libaprutil1t64 libbrotli1 libcurl4t64 libexpat1 libgdbm-compat4t64 libgdbm6 libicu74 libjansson4 libk5crypto3 libkeyutils1 libkrb5-3 libkrb5support0 libldap-common libl ibnghtp2-14 libperl5.38t64 libpsl5t64 librtmp1 libsasl2-2 libsasl2-modules libsasl2-module libssh-4 libxml2 media-types netbase openssl perl perl-modules-5.38 publicsuffix ssl-cert
Suggested packages:
```

```
root@20f546cfc8e:/# apt install php libapache2-mod-php -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package libapache2-mod-php
root@20f546cfc8e:/#
root@20f546cfc8e:/# apt update -y
Hit:1 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:2 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:3 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu noble-security InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
root@20f546cfc8e:/# apt upgrade -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
root@20f546cfc8e:/# apt install apache2 -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
apache2 is already the newest version (2.4.58-1ubuntu8.8).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
root@20f546cfc8e:/# apt install php libapache2-mod-php -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  libapache2-mod-php8.3 libargon2-1 libbsd0 libedit2 libsodium23 php-common php8.3 php8.3-cli
  php8.3-opcache php8.3-readline psmisc tzdata ucf
Suggested packages:
  php-pear
The following NEW packages will be installed:
  libapache2-mod-php libapache2-mod-php8.3 libargon2-1 libbsd0 libedit2 libsodium23 php php-common
  php8.3-common php8.3-opcache php8.3-readline psmisc tzdata ucf
0 upgraded, 16 newly installed, 0 to remove and 0 not upgraded.
Need to get 5755 kB of archives.
After this operation, 25.5 MB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu noble/main amd64 libargon2-1 amd64 0~20190702+dfsg-4build1 [10.4 kB]
Get:2 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libbsd0 amd64 0.12.1-1build1 [10.0 kB]
Get:3 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 tzdata all 2025b-0ubuntu0.24.0 [10.0 kB]
Get:4 http://archive.ubuntu.com/ubuntu noble/main amd64 ucf all 3.0043+nmu1 [56.5 kB]
Get:5 http://archive.ubuntu.com/ubuntu noble/main amd64 libedit2 amd64 3.1-20230828-1build1 [94.0 kB]
Get:6 http://archive.ubuntu.com/ubuntu noble/main amd64 psmisc amd64 23.7-1build1 [179 kB]
Get:7 http://archive.ubuntu.com/ubuntu noble/main amd64 php-common all 2:93ubuntu2 [13.9 kB]
Get:8 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 php8.3-common amd64 8.3.6-0ubuntu1 [13.9 kB]
Get:9 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 php8.3-opcache amd64 8.3.6-0ubuntu1 [13.9 kB]
Get:10 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 php8.3-readline amd64 8.3.6-0ubuntu1 [13.9 kB]
Get:11 http://archive.ubuntu.com/ubuntu noble/main amd64 libsodium23 amd64 1.0.18-1build3 [16.0 kB]
```

```
root@20f546cbcb8e:/# sudo service apache2 start
bash: sudo: command not found
root@20f546cbcb8e:/# service apache2 start
 * Starting Apache httpd web server apache2
 *
root@20f546cbcb8e:/# echo "<?php phpinfo(); ?>" | sudo tee /var/www/html/info.php
bash: sudo: command not found
root@20f546cbcb8e:/# echo "<?php phpinfo(); ?>" | tee /var/www/html/info.php
<?php phpinfo(); ?>
root@20f546cbcb8e:/# echo "<?php phpinfo(); ?>" | tee /var/www/html/info.php
<?php phpinfo(); ?>
root@20f546cbcb8e:/# curl http://localhost/info.php
bash: curl: command not found
root@20f546cbcb8e:/# echo '<?php phpinfo(); ?>' | sudo tee /var/www/html/info.php
bash: sudo: command not found
root@20f546cbcb8e:/# echo '<?php phpinfo(); ?>' | tee /var/www/html/info.php
<?php phpinfo(); ?>
root@20f546cbcb8e:/# echo '<?php phpinfo(); ?>' > /var/www/html/info.php
root@20f546cbcb8e:/# curl http://localhost/info.php
bash: curl: command not found
root@20f546cbcb8e:/# apt upgrade
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
root@20f546cbcb8e:/# apt install curl -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  curl
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 226 kB of archives.
After this operation, 534 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 curl amd64 8.5.0-2ubuntu10.
Fetched 226 kB in 1s (295 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
Selecting previously unselected package curl.
(Reading database ... 8673 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) ...
root@20f546cbcb8e:/# 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,
.center {text-align: center;}
.center table {margin: 1em auto; text-align: left;}
```



```
</div></body></html>root@20f546cbbc8e:/# apt update
Hit:1 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:2 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:4 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
root@20f546cbbc8e:/# apt upgrade -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
root@20f546cbbc8e:/# apt install nginx -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  iproute2 libatm1t64 libbpfi libcap2-bin libelf1t64 libmn10 libpam-cap libxtables12 nginx-common
Suggested packages:
  iproute2-doc python3:any fcgiwrap nginx-doc
The following NEW packages will be installed:
  iproute2 libatm1t64 libbpfi libcap2-bin libelf1t64 libmn10 libpam-cap libxtables12 nginx nginx-common
0 upgraded, 10 newly installed, 0 to remove and 0 not upgraded.
Need to get 2025 kB of archives.
After this operation, 5799 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libelf1t64 amd64 0.190-1.1ubuntu0.1 [57.8 kB]
Get:2 http://archive.ubuntu.com/ubuntu/noble/main amd64 libbpfi amd64 1:1.3.0-2build2 [166 kB]
Get:3 http://archive.ubuntu.com/ubuntu/noble/main amd64 libmn10 amd64 1.0.5-2build1 [12.3 kB]
Get:4 http://archive.ubuntu.com/ubuntu/noble/main amd64 libxtables12 amd64 1.8.10-3ubuntu2 [35.7 kB]
Get:5 http://archive.ubuntu.com/ubuntu/noble-updates/main amd64 libcap2-bin amd64 1:2.66-5ubuntu2.2 [34.2 kB]
Get:6 http://archive.ubuntu.com/ubuntu/noble-updates/main amd64 iproute2 amd64 6.1.0-1ubuntu6.2 [1120 kB]
Get:7 http://archive.ubuntu.com/ubuntu/noble/main amd64 libatm1t64 amd64 1:2.5.1-5.1build1 [22.9 kB]
Get:8 http://archive.ubuntu.com/ubuntu/noble-updates/main amd64 libpam-cap amd64 1:2.66-5ubuntu2.2 [12.5 kB]
Get:9 http://archive.ubuntu.com/ubuntu/noble-updates/main amd64 nginx-common all 1.24.0-2ubuntu7.5 [43.4 kB]
Get:10 http://archive.ubuntu.com/ubuntu/noble-updates/main amd64 nginx amd64 1.24.0-2ubuntu7.5 [520 kB]
Fetched 2025 kB in 0s (5991 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
Selecting previously unselected package libelf1t64:amd64.
(Reading database ... 8682 files and directories currently installed.)
Preparing to unpack .../0-libelf1t64_0.190-1.1ubuntu0.1_amd64.deb ...
Unpacking libelf1t64:amd64 (0.190-1.1ubuntu0.1) ...
Selecting previously unselected package libbpfi:amd64.
Preparing to unpack .../1-libbpfi_1%3a1.3.0-2build2_amd64.deb ...
Unpacking libbpfi:amd64 (1:1.3.0-2build2) ...
Selecting previously unselected package libmn10:amd64.
Preparing to unpack .../2-libmn10_1.0.5-2build1_amd64.deb ...
Unpacking libmn10:amd64 (1.0.5-2build1) ...
Selecting previously unselected package libxtables12:amd64.
Preparing to unpack .../3-libxtables12_1.8.10-3ubuntu2_amd64.deb ...
Unpacking libxtables12:amd64 (1.8.10-3ubuntu2) ...
```

```
root@20f546cbbc8e:/# apt install nginx -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  iproute2 libatm1t64 libbpfi libcap2-bin libelf1t64 libmn10 libpam-cap libxtables12 nginx-common
Suggested packages:
```

Ahora una pequeña comprobación de que los servicios se han levantado correctamente.

```
Seleccionar root@20f546cbc8e:/  
root@20f546cbc8e:/# echo "<h1>Hola Mundo desde Nginx</h1><p>Servidor funcionando correctamente</p>" | sudo tee /var/www/html/index.html  
bash: sudo: command not found  
root@20f546cbc8e:/# echo "<h1>Hola Mundo desde Nginx</h1><p>Servidor funcionando correctamente</p>" | tee /var/www/html/index.html  
<h1>Hola Mundo desde Nginx</h1><p>Servidor funcionando correctamente</p>  
root@20f546cbc8e:/# curl http://localhost  
<h1>Hola Mundo desde Nginx</h1><p>Servidor funcionando correctamente</p>  
root@20f546cbc8e:/# curl -i http://localhost  
HTTP/1.1 200 OK  
Server: nginx/1.24.0 (Ubuntu)  
Date: Thu, 09 Oct 2025 12:32:19 GMT  
Content-Type: text/html  
Content-Length: 73  
Last-Modified: Thu, 09 Oct 2025 12:31:32 GMT  
Connection: keep-alive  
ETag: "68e7ab24-49"  
Accept-Ranges: bytes  
<h1>Hola Mundo desde Nginx</h1><p>Servidor funcionando correctamente</p>  
root@20f546cbc8e:/#
```