

Primera practica Arquitectura en la nube



Diego Gonzalez Fernandez

Índice

1. Preparación del Entorno (WSL)

- Instalación del Subsistema de Windows para Linux (WSL) (Pág. 3)
- Instalación de la distribución Ubuntu (Pág. 4)
- Actualización de repositorios y paquetes del sistema (Pág. 4)

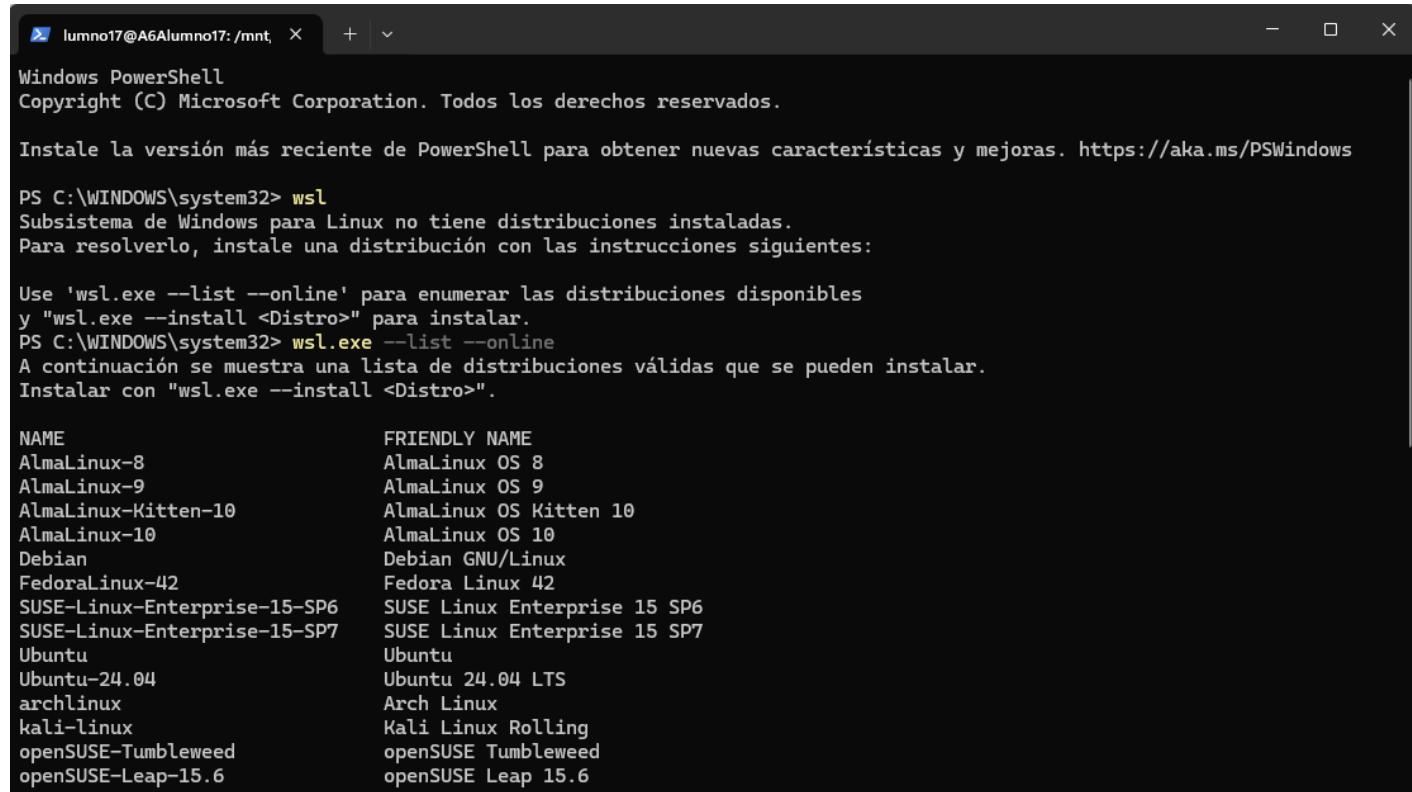
2. Instalación y Configuración de Apache

- Instalación del servidor web Apache (Pág. 5)
- Instalación de PHP y el módulo de Apache (Pág. 6)
- Inicio del servicio Apache (Pág. 7)
- Comprobación del estado del servicio (Pág. 8)
- Creación de la página de prueba info.php (Pág. 9)
- Verificación del servidor con curl y navegador (Pág. 10)

3. Instalación y Configuración de Nginx

- Instalación del servidor Nginx (Pág. 12)
- Inicio y comprobación del estado del servicio (Pág. 14)
- Creación de página de prueba index.html (Pág. 15)

Empezamos poniendo wsl en la terminal de Windows, usamos wsl.exe para instalar el simulador de linux.



```
lumno17@A6Alumno17:/mnt/ + - ▾
Windows PowerShell
Copyright (C) Microsoft Corporation. Todos los derechos reservados.

Instale la versión más reciente de PowerShell para obtener nuevas características y mejoras. https://aka.ms/PSWindows

PS C:\WINDOWS\system32> wsl
Subsistema de Windows para Linux no tiene distribuciones instaladas.
Para resolverlo, instale una distribución con las instrucciones siguientes:

Use 'wsl.exe --list --online' para enumerar las distribuciones disponibles
y "wsl.exe --install <Distro>" para instalar.
PS C:\WINDOWS\system32> wsl.exe --list --online
A continuación se muestra una lista de distribuciones válidas que se pueden instalar.
Instalar con "wsl.exe --install <Distro>".

NAME                      FRIENDLY NAME
AlmaLinux-8                AlmaLinux OS 8
AlmaLinux-9                AlmaLinux OS 9
AlmaLinux-Kitten-10        AlmaLinux OS Kitten 10
AlmaLinux-10               AlmaLinux OS 10
Debian                     Debian GNU/Linux
FedoraLinux-42              Fedora Linux 42
SUSE-Linux-Enterprise-15-SP6 SUSE Linux Enterprise 15 SP6
SUSE-Linux-Enterprise-15-SP7 SUSE Linux Enterprise 15 SP7
Ubuntu                      Ubuntu
Ubuntu-24.04                 Ubuntu 24.04 LTS
archlinux                   Arch Linux
kali-linux                  Kali Linux Rolling
openSUSE-Tumbleweed          openSUSE Tumbleweed
openSUSE-Leap-15.6            openSUSE Leap 15.6
```

Con sudo apt update, refresco la lista de paquetes disponibles en los repositorios.

Con sudo apt upgrade -y, actualizo todo el software instalado a su última versión, aceptando automáticamente cualquier confirmación con -y.

```
lumno17@A6Alumno17: /mnt, X + | - □ X
archlinux          Arch Linux
kali-linux         Kali Linux Rolling
openSUSE-Tumbleweed openSUSE Tumbleweed
openSUSE-Leap-15.6 openSUSE Leap 15.6
Ubuntu-20.04       Ubuntu 20.04 LTS
Ubuntu-22.04       Ubuntu 22.04 LTS
OracleLinux_7_9    Oracle Linux 7.9
OracleLinux_8_10   Oracle Linux 8.10
OracleLinux_9_5    Oracle Linux 9.5
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: alumno17
New password:
Retype new password:
Sorry, passwords do not match.
passwd: Authentication token manipulation error
passwd: password unchanged
Try again? [y/N] y
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.

lumno17@A6Alumno17:/mnt/c/WINDOWS/system32$ sudo apt update && sudo apt upgrade -y
[sudo] password for alumno17: |
```

Ahora, procedo a instalar el servidor web Apache

```
lumno17@A6Alumno17:/mnt/ + | x
Unpacking libtiff6:amd64 (4.5.1+git230720-4ubuntu2.4) over (4.5.1+git230720-4ubuntu2.2) ...
Preparing to unpack .../22-mesa-vulkan-drivers_25.0.7-0ubuntu0.24.04.2_amd64.deb ...
Unpacking mesa-vulkan-drivers:amd64 (25.0.7-0ubuntu0.24.04.2) over (25.0.7-0ubuntu0.24.04.1) ...
Preparing to unpack .../23-software-properties-common_0.99.49.3_all.deb ...
Unpacking software-properties-common (0.99.49.3) over (0.99.49.2) ...
Preparing to unpack .../24-python3-software-properties_0.99.49.3_all.deb ...
Unpacking python3-software-properties (0.99.49.3) over (0.99.49.2) ...
Setting up openssh-client (1:9.6p1-3ubuntu13.14) ...
Setting up libsqlite3-0:amd64 (3.45.1-1ubuntu2.5) ...
Setting up libpython3.12-minimal:amd64 (3.12.3-1ubuntu0.8) ...
Setting up locales (2.39-0ubuntu8.6) ...
Generating locales (this might take a while)...
Generation complete.
Setting up landscape-common (24.02-0ubuntu5.6) ...
Setting up xxd (2:9.1.0016-1ubuntu7.9) ...
Setting up libdconf1:amd64 (0.40.0-4ubuntu0.1) ...
Setting up vim-common (2:9.1.0016-1ubuntu7.9) ...
Setting up python3-software-properties (0.99.49.3) ...
Setting up landscape-client (24.02-0ubuntu5.6) ...
Setting up systemd-hwe-hwdb (255.1.5) ...
Setting up libtiff6:amd64 (4.5.1+git230720-4ubuntu2.4) ...
Setting up vim-runtime (2:9.1.0016-1ubuntu7.9) ...
Setting up libcups2t64:amd64 (2.4.7-1.2ubuntu7.4) ...
Setting up libxml2:amd64 (2.9.14+dfsg-1.3ubuntu3.5) ...
Setting up python3.12-minimal (3.12.3-1ubuntu0.8) ...
Setting up libpython3.12-stdlib:amd64 (3.12.3-1ubuntu0.8) ...
Setting up python3.12 (3.12.3-1ubuntu0.8) ...
Setting up dconf-service (0.40.0-4ubuntu0.1) ...
Setting up vim-tiny (2:9.1.0016-1ubuntu7.9) ...
Setting up software-properties-common (0.99.49.3) ...
Setting up libpython3.12t64:amd64 (3.12.3-1ubuntu0.8) ...
Setting up libllvm20:amd64 (1:20.1.2-0ubuntu1~24.04.2) ...
Setting up mesa-vulkan-drivers:amd64 (25.0.7-0ubuntu0.24.04.2) ...
Setting up mesa-libgallium:amd64 (25.0.7-0ubuntu0.24.04.2) ...
Setting up vim (2:9.1.0016-1ubuntu7.9) ...
Setting up dconf-gsettings-backend:amd64 (0.40.0-4ubuntu0.1) ...
Setting up libgbm1:amd64 (25.0.7-0ubuntu0.24.04.2) ...
Setting up libgl1-mesa-dri:amd64 (25.0.7-0ubuntu0.24.04.2) ...
Setting up libegl-mesa0:amd64 (25.0.7-0ubuntu0.24.04.2) ...
Setting up libglx-mesa0:amd64 (25.0.7-0ubuntu0.24.04.2) ...
Processing triggers for libc-bin (2.39-0ubuntu8.6) ...
Processing triggers for systemd (255.4-1ubuntu8.10) ...
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for libglib2.0-0t64:amd64 (2.80.0-6ubuntu3.4) ...
Processing triggers for dbus (1.14.10-4ubuntu4.1) ...
Processing triggers for udev (255.4-1ubuntu8.10) ...
Processing triggers for install-info (7.1-3build2) ...
Processing triggers for hicolor-icon-theme (0.17-2) ... Activar Windows
lumno17@A6Alumno17:/mnt/c/WINDOWS/system32$ sudo apt install apache2 -y
```

Para que Apache pueda procesar páginas dinámicas, necesito instalar PHP y el módulo que lo conecta con Apache:

```
lumno17@A6Alumno17:/mnt ~ + ^ Preparing to unpack .../9-ssl-cert_1.1.2ubuntu1_all.deb ... Unpacking ssl-cert (1.1.2ubuntu1) ... Setting up ssl-cert (1.1.2ubuntu1) ... Created symlink /etc/systemd/system/multi-user.target.wants/ssl-cert.service → /usr/lib/systemd/system/ssl-cert.service. Setting up libapr1t64:amd64 (1.7.2-3.1ubuntu0.1) ... Setting up liblua5.4-0:amd64 (5.4.6-3build2) ... Setting up apache2-data (2.4.58-1ubuntu8.8) ... Setting up libaprutil1t64:amd64 (1.6.3-1.1ubuntu7) ... Setting up libaprutil1-ldap:amd64 (1.6.3-1.1ubuntu7) ... Setting up libaprutil1-dbd-sqlite3:amd64 (1.6.3-1.1ubuntu7) ... Setting up apache2-utils (2.4.58-1ubuntu8.8) ... Setting up apache2-bin (2.4.58-1ubuntu8.8) ... Setting up apache2 (2.4.58-1ubuntu8.8) ... Enabling module mpm_event. Enabling module authz_core. Enabling module authz_host. Enabling module authn_core. Enabling module auth_basic. Enabling module access_compat. Enabling module authn_file. Enabling module authz_user. Enabling module alias. Enabling module dir. Enabling module autoindex. Enabling module env. Enabling module mime. Enabling module negotiation. Enabling module setenvif. Enabling module filter. Enabling module deflate. Enabling module status. Enabling module reqtimeout. Enabling conf charset. Enabling conf localized-error-pages. Enabling conf other-vhosts-access-log. Enabling conf security. Enabling conf serve-cgi-bin. Enabling site 000-default. Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /usr/lib/systemd/system/apache2.service. Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /usr/lib/systemd/system/apache-htcacheclean.service. Processing triggers for man-db (2.12.0-4build2) ... Processing triggers for libc-bin (2.39-0ubuntu8.6) ... lumno17@A6Alumno17:/mnt/c/WINDOWS/system32$ sudo apt install php libapache2-mod-php -y
```

Una vez instalado, inicio el servicio de Apache para que el servidor comience a funcionar:

```
lumno17@A6Alumno17:/mnt/ + 
Creating config file /etc/php/8.3/mods-available/pdo.ini with new version
Creating config file /etc/php/8.3/mods-available/phar.ini with new version
Creating config file /etc/php/8.3/mods-available/posix.ini with new version
Creating config file /etc/php/8.3/mods-available/shmop.ini with new version
Creating config file /etc/php/8.3/mods-available/sockets.ini with new version
Creating config file /etc/php/8.3/mods-available/sysvmsg.ini with new version
Creating config file /etc/php/8.3/mods-available/sysvsem.ini with new version
Creating config file /etc/php/8.3/mods-available/sysvshm.ini with new version
Creating config file /etc/php/8.3/mods-available/tokenizer.ini with new version
Setting up php8.3-readline (8.3.6-0ubuntu0.24.04.5) ...
Creating config file /etc/php/8.3/mods-available/readline.ini with new version
Setting up php8.3-opcache (8.3.6-0ubuntu0.24.04.5) ...

Creating config file /etc/php/8.3/mods-available/opcache.ini with new version
Setting up php8.3-cli (8.3.6-0ubuntu0.24.04.5) ...
update-alternatives: using /usr/bin/php8.3 to provide /usr/bin/php (php) in auto mode
update-alternatives: using /usr/bin/phar8.3 to provide /usr/bin/phar (phar) in auto mode
update-alternatives: using /usr/bin/phar.phar8.3 to provide /usr/bin/phar.phar (phar.phar) in auto mode
Creating config file /etc/php/8.3/cli/php.ini with new version
Setting up libapache2-mod-php8.3 (8.3.6-0ubuntu0.24.04.5) ...

Creating config file /etc/php/8.3/apache2/php.ini with new version
Module mpm_event disabled.
Enabling module mpm_prefork.
apache2_switch_mpm Switch to prefork
apache2_invoke: Enable module php8.3
Setting up php8.3 (8.3.6-0ubuntu0.24.04.5) ...
Setting up libapache2-mod-php (2:8.3+93ubuntu2) ...
Setting up php (2:8.3+93ubuntu2) ...
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for php8.3-cli (8.3.6-0ubuntu0.24.04.5) ...
Processing triggers for libapache2-mod-php8.3 (8.3.6-0ubuntu0.24.04.5) ...
lumno17@A6Alumno17:/mnt/c/WINDOWS/system32$ sudo service apache2 start|
```

Para asegurarme de que todo ha ido bien, compruebo el estado del servicio:

```
lumno17@A6Alumno17:/mnt/ + - X
Creating config file /etc/php/8.3/mods-available/pdo.ini with new version
Creating config file /etc/php/8.3/mods-available/phar.ini with new version
Creating config file /etc/php/8.3/mods-available/posix.ini with new version
Creating config file /etc/php/8.3/mods-available/shmop.ini with new version
Creating config file /etc/php/8.3/mods-available/sockets.ini with new version
Creating config file /etc/php/8.3/mods-available/sysvmsg.ini with new version
Creating config file /etc/php/8.3/mods-available/sysvsem.ini with new version
Creating config file /etc/php/8.3/mods-available/sysvshm.ini with new version
Creating config file /etc/php/8.3/mods-available/tokenizer.ini with new version
Setting up php8.3-readline (8.3.6-0ubuntu0.24.04.5) ...
Creating config file /etc/php/8.3/mods-available/readline.ini with new version
Setting up php8.3-opcache (8.3.6-0ubuntu0.24.04.5) ...
Creating config file /etc/php/8.3/mods-available/opcache.ini with new version
Setting up php8.3-cli (8.3.6-0ubuntu0.24.04.5) ...
update-alternatives: using /usr/bin/php8.3 to provide /usr/bin/php (php) in auto mode
update-alternatives: using /usr/bin/phar8.3 to provide /usr/bin/phar (phar) in auto mode
update-alternatives: using /usr/bin/phar.phar8.3 to provide /usr/bin/phar.phar (phar.phar) in auto mode
Creating config file /etc/php/8.3/cli/php.ini with new version
Setting up libapache2-mod-php8.3 (8.3.6-0ubuntu0.24.04.5) ...
Creating config file /etc/php/8.3/apache2/php.ini with new version
Module mpm_event disabled.
Enabling module mpm_prefork.
apache2_switch_mpm Switch to prefork
apache2_invoke: Enable module php8.3
Setting up php8.3 (8.3.6-0ubuntu0.24.04.5) ...
Setting up libapache2-mod-php (2:8.3+93ubuntu2) ...
Setting up php (2:8.3+93ubuntu2) ...
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for php8.3-cli (8.3.6-0ubuntu0.24.04.5) ...
Processing triggers for libapache2-mod-php8.3 (8.3.6-0ubuntu0.24.04.5) ...
lumno17@A6Alumno17:/mnt/c/WINDOWS/system32$ sudo service apache2 start
lumno17@A6Alumno17:/mnt/c/WINDOWS/system32$ sudo systemctl status apache2
```

La terminal me devuelve un estado de active (running), lo que confirma que mi servidor Apache está en línea y funcionando correctamente.

Finalmente, para hacer una prueba completa, creo un pequeño archivo PHP que mostrará toda la información de configuración. Lo hago directamente desde la terminal:

```
lumno17@A6Alumno17:/mnt/ + 
Setting up php8.3-opcache (8.3.6-0ubuntu0.24.04.5) ...

Creating config file /etc/php/8.3/mods-available/opcache.ini with new version
Setting up php8.3-cli (8.3.6-0ubuntu0.24.04.5) ...
update-alternatives: using /usr/bin/php8.3 to provide /usr/bin/php (php) in auto mode
update-alternatives: using /usr/bin/phar8.3 to provide /usr/bin/phar (phar) in auto mode
update-alternatives: using /usr/bin/phar.phar8.3 to provide /usr/bin/phar.phar (phar.phar) in auto mode

Creating config file /etc/php/8.3/cli/php.ini with new version
Setting up libapache2-mod-php8.3 (8.3.6-0ubuntu0.24.04.5) ...

Creating config file /etc/php/8.3/apache2/php.ini with new version
Module mpm_event disabled.
Enabling module mpm_prefork.
apache2_switch_mpm Switch to prefork
apache2_invoke: Enable module php8.3
Setting up php8.3 (8.3.6-0ubuntu0.24.04.5) ...
Setting up libapache2-mod-php (2:8.3+93ubuntu2) ...
Setting up php (2:8.3+93ubuntu2) ...
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for php8.3-cli (8.3.6-0ubuntu0.24.04.5) ...
Processing triggers for libapache2-mod-php8.3 (8.3.6-0ubuntu0.24.04.5) ...
lumno17@A6Alumno17:/mnt/c/WINDOWS/system32$ sudo service apache2 start
lumno17@A6Alumno17:/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 14:26:19 CEST; 11min ago
     Docs: https://httpd.apache.org/docs/2.4/
 Process: 9786 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
 Main PID: 9789 (apache2)
    Tasks: 6 (limit: 9350)
   Memory: 10.5M (peak: 12.2M)
      CPU: 108ms
     CGroup: /system.slice/apache2.service
             ├─9789 /usr/sbin/apache2 -k start
             ├─9792 /usr/sbin/apache2 -k start
             ├─9793 /usr/sbin/apache2 -k start
             ├─9794 /usr/sbin/apache2 -k start
             ├─9795 /usr/sbin/apache2 -k start
             └─9796 /usr/sbin/apache2 -k start

Sep 30 14:26:19 A6Alumno17 systemd[1]: Starting apache2.service - The Apache HTTP Server...
Sep 30 14:26:19 A6Alumno17 systemd[1]: Started apache2.service - The Apache HTTP Server.
lumno17@A6Alumno17:/mnt/c/WINDOWS/system32$ echo "<?php phpinfo(); ?>" | sudo tee /var/www/html/info.php
```

Este comando crea el archivo info.php en el directorio raíz del servidor web. Para verificar que funciona, accedo a él desde la terminal con curl y luego abro la dirección <http://localhost/info.php> en mi navegador

```
lumno17@A6Alumno17:/mnt/ ~ + | X
e

Creating config file /etc/php/8.3/cli/php.ini with new version
Setting up libapache2-mod-php8.3 (8.3.6-0ubuntu0.24.04.5) ...

Creating config file /etc/php/8.3/apache2/php.ini with new version
Module mpm_event disabled.
Enabling module mpm_prefork.
apache2_switch_mpm Switch to prefork
apache2_invoke: Enable module php8.3
Setting up php8.3 (8.3.6-0ubuntu0.24.04.5) ...
Setting up libapache2-mod-php (2:8.3+93ubuntu2) ...
Setting up php (2:8.3+93ubuntu2) ...
Processing triggers for man-db (2.12.0-4build2) ...
Processing triggers for php8.3-cli (8.3.6-0ubuntu0.24.04.5) ...
Processing triggers for libapache2-mod-php8.3 (8.3.6-0ubuntu0.24.04.5) ...
lumno17@A6Alumno17:/mnt/c/WINDOWS/system32$ sudo service apache2 start
lumno17@A6Alumno17:/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 14:26:19 CEST; 11min ago
     Docs: https://httpd.apache.org/docs/2.4/
 Process: 9786 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
 Main PID: 9789 (apache2)
    Tasks: 6 (limit: 9350)
   Memory: 10.5M (peak: 12.2M)
      CPU: 108ms
     CGroup: /system.slice/apache2.service
             └─9789 /usr/sbin/apache2 -k start
                 ├─9792 /usr/sbin/apache2 -k start
                 ├─9793 /usr/sbin/apache2 -k start
                 ├─9794 /usr/sbin/apache2 -k start
                 ├─9795 /usr/sbin/apache2 -k start
                 └─9796 /usr/sbin/apache2 -k start

Sep 30 14:26:19 A6Alumno17 systemd[1]: Starting apache2.service - The Apache HTTP Server...
Sep 30 14:26:19 A6Alumno17 systemd[1]: Started apache2.service - The Apache HTTP Server.
lumno17@A6Alumno17:/mnt/c/WINDOWS/system32$ echo "<?php phpinfo(); ?>" | sudo tee /var/www/html/info.php
<?php phpinfo(); ?>
lumno17@A6Alumno17:/mnt/c/WINDOWS/system32$ echo "<?php phpinfo(); ?>" | sudo tee /var/www/html/info.php
<?php phpinfo(); ?>
lumno17@A6Alumno17:/mnt/c/WINDOWS/system32$ ^C
lumno17@A6Alumno17:/mnt/c/WINDOWS/system32$ curl http://localhost/info.php
```

PHP Version 8.3.6	
System	Linux A6Alumno17 6.6.87.2-microsoft-standard-WSL2 #1 SMP PREEMPT_DYNAMIC Thu Jun 5 18:30:46 UTC 2025 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-fil.ini, /etc/php/8.3/apache2/conf.d/20-finfo.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
Zend Memory Manager	enabled
Zend Multibyte Support	disabled
Zend Max Execution Timers	disabled
IPv6 Support	enabled
DTrace Support	disabled
Registered PHP Streams	https, ftps, compress.zlib, php, file, glob, data, http, ftp, phar
Registered Stream Socket Transports	tcp, udp, unix, udg, ssl, tls, tlsv1.0, tlsv1.1, tlsv1.2, tlsv1.3
Registered Stream Filters	zlib.* , string.rot13, string.toupper, string.tolower, convert*, consumed, dechunk, convert.iconv.*
This program makes use of the Zend Scripting Language Engine: Zend Engine v4.3.6, Copyright (c) Zend Technologies with Zend OPcache v8.3.6, Copyright (c), by Zend Technologies	
zend engine	

```
lumno17@A6Alumno17:/mnt/ X + | - X
<table>
<tr class="h"><th colspan="2">PHP Documentation</th></tr>
<tr><td class="e">Authors </td><td class="v">Mehdi Achour, Friedhelm Betz, Antony Dovgal, Nuno Lopes, Hannes Magnusson, Philip Olson, Georg Richter, Damien Seguy, Jakub Vrana, Adam Harvey </td></tr>
<tr><td class="e">Editor </td><td class="v">Peter Cowburn </td></tr>
<tr><td class="e">User Note Maintainers </td><td class="v">Daniel P. Brown, Thiago Henrique Pojda </td></tr>
<tr><td class="e">Other Contributors </td><td class="v">Previously active authors, editors and other contributors are listed in the manual. </td></tr>
</table>
<table>
<tr class="h"><th>PHP Quality Assurance Team</th></tr>
<tr><td class="e">Ilia Alshanetsky, Joerg Behrens, Antony Dovgal, Stefan Esser, Moriyoshi Koizumi, Magnus Maatta, Sebastian Nohn, Derick Rethans, Melvyn Sopacua, Pierre-Alain Joye, Dmitry Stogov, Felipe Pena, David Soria Parra, Stanislav Malyshev, Julien Pauli, Stephen Zarkos, Anatol Belski, Remi Collet, Ferenc Kovacs </td></tr>
</table>
<table>
<tr class="h"><th colspan="2">Websites and Infrastructure team</th></tr>
<tr><td class="e">PHP Websites Team </td><td class="v">Rasmus Lerdorf, Hannes Magnusson, Philip Olson, Lukas Kahwe Smith, Pierre-Alain Joye, Kalle Sommer Nielsen, Peter Cowburn, Adam Harvey, Ferenc Kovacs, Levi Morrison </td></tr>
<tr><td class="e">Event Maintainers </td><td class="v">Damien Seguy, Daniel P. Brown </td></tr>
<tr><td class="e">Network Infrastructure </td><td class="v">Daniel P. Brown </td></tr>
<tr><td class="e">Windows Infrastructure </td><td class="v">Alex Schoenmaker </td></tr>
</table>
<table>
<tr class="h"><th colspan="1">Debian Packaging</th></tr>
<tr><td class="e">Ondřej Surý </td></tr>
</table>
<h2>PHP License</h2>
<table>
<tr class="v"><td>
<p>This program is free software; you can redistribute it and/or modify it under the terms of the PHP License as published by the PHP Group and included in the distribution in the file: LICENSE</p>
<p>This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.</p>
<p>If you did not receive a copy of the PHP license, or have any questions about PHP licensing, please contact license@php.net.</p>
</td></tr>
</table>
</div></body></html>Lumno17@A6Alumno17:/mnt/c/WINDOWS/system32$ sudo apt install nginx -y|
```

A continuación, voy a instalar Nginx. Primero, detengo Apache para liberar el puerto 80. Luego, instalo Nginx con el siguiente comando:

```
lumno17@A6Alumno17:/mnt | + | - | X
<p>This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
</p>
<p>If you did not receive a copy of the PHP license, or have any questions about PHP licensing, please contact license@php.net.
</p>
</td></tr>
</table>
</div></body></html>lumno17@A6Alumno17:/mnt/c/WINDOWS/system32$ 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, 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 0s (1998 kB/s)
Preconfiguring packages ...
Selecting previously unselected package nginx-common.
(Reading database ... 41618 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) ...
Setting up nginx-common (1.24.0-2ubuntu7.5) ...
Created symlink /etc/systemd/system/multi-user.target.wants/nginx.service → /usr/lib/systemd/system/nginx.service.
Could not execute systemctl: at /usr/bin/deb-systemd-invoke line 148.
Setting up nginx (1.24.0-2ubuntu7.5) ...
Not attempting to start NGINX, port 80 is already in use.
Processing triggers for man-db (2.12.0-4build2) ...
lumno17@A6Alumno17:/mnt/c/WINDOWS/system32$ sudo service nginx start
```

El servicio ahora se muestra como active (running), así que Nginx está funcionando.

```
lumno17@A6Alumno17:/mnt/ + | X
(c) Microsoft Corporation. Todos los derechos reservados.

C:\Users\Alumno.DESKTOP-DI5KTUG>wsl

lumno17@A6Alumno17:/mnt/c/Users/Alumno.DESKTOP-DI5KTUG$ sudo systemctl status gnginx
[sudo] password for alumno17:
Unit gnginx.service could not be found.

lumno17@A6Alumno17:/mnt/c/Users/Alumno.DESKTOP-DI5KTUG$ sudo systemctl status gnginx
Unit gnginx.service could not be found.

lumno17@A6Alumno17:/mnt/c/Users/Alumno.DESKTOP-DI5KTUG$ sudo apt install gnginx -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package gnginx
lumno17@A6Alumno17:/mnt/c/Users/Alumno.DESKTOP-DI5KTUG$ sudo servide nginx start
sudo: servide: command not found
lumno17@A6Alumno17:/mnt/c/Users/Alumno.DESKTOP-DI5KTUG$ sudo service nginx start
lumno17@A6Alumno17:/mnt/c/Users/Alumno.DESKTOP-DI5KTUG$ 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 2025-10-14 08:52:21 CEST; 2min 59s ago
     Docs: man:nginx(8)
 Process: 197 ExecStartPre=/usr/sbin/nginx -t -q -g daemon on; master_process on; (code=exited, st>
 Process: 250 ExecStart=/usr/sbin/nginx -g daemon on; master_process on; (code=exited, status=0/SU>
 Main PID: 252 (nginx)
    Tasks: 17 (limit: 9350)
   Memory: 13.0M (peak: 15.7M)
      CPU: 34ms
     CGroup: /system.slice/nginx.service
             ├─252 "nginx: master process /usr/sbin/nginx -g daemon on; master_process on;"
             ├─253 "nginx: worker process"
             ├─254 "nginx: worker process"
             ├─255 "nginx: worker process"
             ├─256 "nginx: worker process"
             ├─257 "nginx: worker process"
             ├─259 "nginx: worker process"
             ├─260 "nginx: worker process"
             ├─261 "nginx: worker process"
             ├─262 "nginx: worker process"
             ├─263 "nginx: worker process"
             ├─264 "nginx: worker process"
             ├─265 "nginx: worker process"
             ├─266 "nginx: worker process"
             ├─267 "nginx: worker process"
             ├─268 "nginx: worker process"
             └─269 "nginx: worker process"

Oct 14 08:52:21 A6Alumno17 systemd[1]: Starting nginx.service - A high performance web server and a r>
Oct 14 08:52:21 A6Alumno17 systemd[1]: Started nginx.service - A high performance web server and a re>
Lines 1-31/31 (END)
```

Para hacer una prueba visual, creo una página web sencilla con un mensaje de bienvenida.

Reemplazo el archivo index.html por defecto con mi propio contenido

The screenshot shows a Linux desktop environment with two windows open. The top window is a web browser displaying the URL `localhost`. The page content is a simple HTML document with the title `Hola mundo desde nginx` and the text `Servidor funcionando correctamente`. The bottom window is a terminal window with a dark background. It shows the command `echo "<h1>Hola mundo desde nginx</h1><p>Servidor funcionando correctamente</p>" | sudo tee /var/www/html/index.html` being run, followed by the output of the command, which is the same HTML content displayed in the browser. Below this, another command is shown: `id addr show eth0 | grep inet`, with its output indicating that there is no such user for 'addr', 'show', and 'eth0'.

```
lumno17@A6Alumno17:/mnt/c/Users/Alumno.DESKTOP-DI5KTUG$ 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>
lumno17@A6Alumno17:/mnt/c/Users/Alumno.DESKTOP-DI5KTUG$ id addr show eth0 | grep inet
id: 'addr': no such user
id: 'show': no such user
id: 'eth0': no such user
lumno17@A6Alumno17:/mnt/c/Users/Alumno.DESKTOP-DI5KTUG$ |
```