

PE01 - Servidor LAMP con Vagrant

Práctica realizada por **Adrián López**, estudiante de **2º ASIR**.

Servidor LAMP (Linux + Apache + MySQL + PHP) completamente automatizado con Vagrant.

Descripción

Este proyecto levanta una máquina virtual Ubuntu 20.04 (box `ubuntu/focal64`) con:

- Apache 2.4
- MySQL 8.0
- PHP 7.4+ y extensiones básicas (`php-mysql`, `php-curl`, `php-gd`, `php-mbstring`, `php-xml`)

Incluye una aplicación PHP de prueba que:

- Muestra información del servidor (hostname, IP, SO)
- Muestra las versiones instaladas de Apache, PHP y MySQL
- Comprueba la conexión a la base de datos `lamp_db` con el usuario `lamp_user`
- Lista las extensiones PHP cargadas

Requisitos previos

- VirtualBox 7.0 o superior
- Vagrant 2.4 o superior
- Al menos 2 GB de RAM libres
- Al menos 5 GB de espacio en disco

Estructura del proyecto

- `Vagrantfile`: configuración de la máquina virtual y provisioning
- `scripts/`: scripts de instalación y configuración del stack LAMP
- `www/`: contenido web servido por Apache

Uso

Clona o copia el proyecto y levanta la máquina virtual:

```
cd PE01-LAMP_adrianLopez  
vagrant up
```

Para apagar la máquina:

```
vagrant halt
```

Para destruirla (y comprobar reproducibilidad):

```
vagrant destroy -f  
vagrant up
```

Acceso

- **Web (host → VM):** <http://localhost:8080>
- **IP privada VM:** <http://192.168.56.100>
- **SSH a la VM:** `vagrant ssh`

Base de datos

- **Nombre BD:** `lamp_db`
- **Usuario:** `lamp_user`
- **Password:** `lamp_pass`
- **Permisos:** ALL PRIVILEGES en `lamp_db.*`

Prueba rápida desde la VM:

```
vagrant ssh
```

```
mysql -u lamp_user -plamp_pass lamp_db -e "SELECT 1;"
```

```
c:\Users\adria\Desktop\ASIR2\CENY\UT6\ejer\PE01-LAMP_adrianLopez:vagrant ssh  
Welcome to Ubuntu 20.04.6 LTS (GNU/Linux 5.4.0-216-generic x86_64)
```

```
* Documentation: https://help.ubuntu.com  
* Management: https://landscape.canonical.com  
* Support: https://ubuntu.com/pro  
  
System information as of Tue Feb 10 20:50:40 UTC 2026  
  
System load: 0.01 Processes: 130  
Usage of /: 6.5% of 38.70GB Users logged in: 0  
Memory usage: 31% IPv4 address for enp0s3: 10.0.2.15  
Swap usage: 0%
```

```
Expanded Security Maintenance for Infrastructure is not enabled.
```

```
21 updates can be applied immediately.  
15 of these updates are standard security updates.  
To see these additional updates run: apt list --upgradable
```

```
111 additional security updates can be applied with ESM Infra.  
Learn more about enabling ESM Infra service for Ubuntu 20.04 at  
https://ubuntu.com/20-04
```

```
New release '22.04.5 LTS' available.  
Run 'do-release-upgrade' to upgrade to it.
```

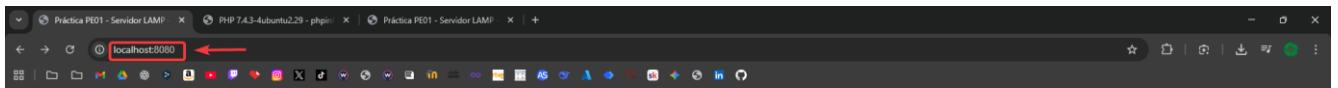
```
vagrant@lamp-server:~$ mysql -u lamp_user -plamp_pass lamp_db -e "SELECT 1;"  
mysql: [Warning] Using a password on the command line interface can be insecure.  
+---+  
| 1 |  
+---+  
| 1 |  
+---+  
vagrant@lamp-server:~$ |
```

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Capturas de pantalla



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Información del Servidor

Hostname	lamp-server
IP	10.0.2.15
SO	Linux lamp-server 5.4.0-216-generic #236-Ubuntu SMP Fri Apr 11 19:53:21 UTC 2025 x86_64

Versión Software

Apache	Apache/2.4.41 (Ubuntu)
PHP	7.4.3-4ubuntu2.29
MySQL	N/A

Conexión a Base de Datos

Conexión exitosa a lamp_db con lamp_user

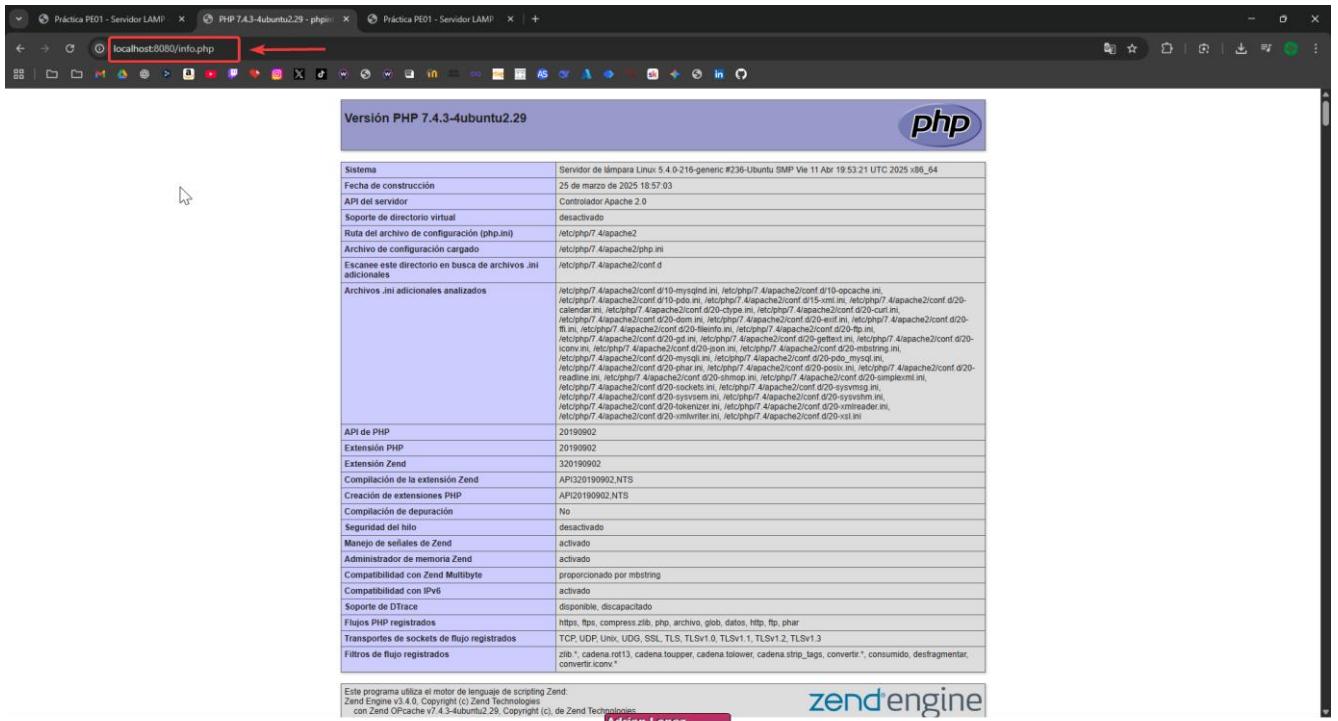
Extensiones PHP cargadas

Core, date, libxml, openssl, pcntl, ctype, hash, Reflection, SPL, session, standard, sodium, apache2handler, mysqlind, PDO, xml, calendar, curl, dom, mbstring, FFI, fileinfo, ftp, gd, gettext, iconv, json, exif, mysqli, pdo_mysql, Phar, posix, readline, shmop, SimpleXML, sockets, sysvmsg, sysvsem, sysvshm, tokenizer, xmireader, xmlwriter, xsl, Zend OPcache

[Ver phpinfo\(\) completo](#)

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Acceso por IP

The left screenshot shows the 'Práctica PE01 - Servidor LAMP' page with the URL '192.168.56.100'. The right screenshot shows the 'PHP Version 7.4.3-4ubuntu2.29 - phpinfo()' page with the URL '192.168.56.100/info.php'.

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Conexión a Base de Datos

✓ Conexión exitosa a lamp_db con lamp_user

Extensiones PHP cargadas

Core, date, libxml, openssl, pcntl, zlib, filter, hash, Reflection, SPL, session, standard, sodium, apache2handler, mysqlind, PDO, xml, calendar, ctype, curl, dom, mbstring, FFI, fileinfo, ftp, gd, gettext, iconv, json, exif, mysql, pdo_mysql, Phar, posix, readline, shmop, SimpleXML, sockets, sysvmsg, sysvsem, sysvshm, tokenizer, xmlreader, xmlwriter, xsl, Zend OPcache

[Ver phpinfo\(\) completo](#)

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PHP Version 7.4.3-4ubuntu2.29

System: Linux lamp-server 5.4.0-216-generic #236-Ubuntu SMP Fri Apr 11 19:53:21 UTC 2025 x86_64

Build Date: Mar 25 2025 18:57:03

Server API: Apache 2.0 Handler

Virtual Directory Support: disabled

Configuration File (php.ini) Path: /etc/php/7.4/apache2

Loaded Configuration File: /etc/php/7.4/apache2/php.ini

Scan this dir for additional .ini files: /etc/php/7.4/apache2/conf.d

Additional .ini files parsed:

PHP API: 20190902

PHP Extension: 20190902

Zend Extension: 320190902

Zend Extension Build: API320190902.NTS

PHP Extension Build: API20190902.NTS

Debug Build: no

Thread Safety: disabled

Zend Signal Handling: enabled

Zend Memory Manager: enabled

Zend MultiByte Support: provided by mbstring

IPv6 Support: enabled

DTrace Support: available, disabled

Registered PHP Streams: https, ftps, compress.zlib, php, file, glob, data, http, fip, phar

Registered Stream Socket Transports: tcp, udp, unix, udg, ssl, tlsv1.0, tlsv1.1, tlsv1.2, tlsv1.3

Registered Stream Filters: zlib*, string.rot13, string.toupper, string.tolower, string.strip_tags, convert*, consumed, dechunk, convert.iconv*

This program makes use of the Zend Scripting Language Engine
Zend Engine v3.4.0, Copyright (c) Zend Technologies
with Zend OPcache v7.4.3-4ubuntu2.29, Copyright (c), by Zend Technologies

zendengine

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Autor

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- Ciclo: Administración de Sistemas Informáticos en Red (2º ASIR)