

# TERCERA PRACTICA ARQUITECTURA EN LA NUBE

## Instalación del Servidor LAMP

### 1. Actualizar el Sistema

```
vboxuser@UbuntuDesktop:~$ sudo apt update
[sudo] password for vboxuser:
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
82 packages can be upgraded. Run 'apt list --upgradable' to see them.
```

```
vboxuser@UbuntuDesktop:~$ 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:
  bind9-dnsutils bind9-host bind9-libs bluez bluez-cups bluez-obexd cloud-init
  coreutils dconf-cli dconf-gsettings-backend dconf-service fwupd gdm3
  gir1.2-gdm-1.0 gir1.2-gtk-4.0 gir1.2-nm-1.0
  gnome-shell-extension-desktop-icons-ng libbluetooth3 libdconf1 libegl-mesa0
  libfwupd2 libgbm1 libgdm1 libgl1-mesa-dri libglx-mesa0 libgtk-4-1
  libgtk-4-bin libgtk-4-common libgtk-4-media-gstreamer libgtop-2.0-11
  libgtop2-common libipsec-bbaf0f64 libmalcontent-0-0 libm0 libnss-ssl
```

### 2. Instalación Apache Servidor Web

```
vboxuser@UbuntuDesktop:~$ 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.
```

```
vboxuser@UbuntuDesktop:~$ sudo systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/apache2.service; enabled; preset: >
   Active: active (running) since Fri 2025-10-17 08:04:36 UTC; 19s ago
     Docs: https://httpd.apache.org/docs/2.4/
    Main PID: 15466 (apache2)
      Tasks: 55 (limit: 4604)
     Memory: 5.4M (peak: 6.0M)
        CPU: 41ms
    CGroup: /system.slice/apache2.service
            └─15466 /usr/sbin/apache2 -k start
              └─15602 /usr/sbin/apache2 -k start
                └─15603 /usr/sbin/apache2 -k start
```

### 3. Instalar MySQL (Base de datos)

```
vboxuser@UbuntuDesktop:~$ sudo apt install mysql-server -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:
  libaio1t64 libcgi-fast-perl libcgi-pm-perl libevent-core-2.1-7t64
```

```
vboxuser@UbuntuDesktop:~$ sudo mysql_secure_installation

Securing the MySQL server deployment.

Connecting to MySQL using a blank password.

VALIDATE PASSWORD COMPONENT can be used to test passwords
and improve security. It checks the strength of password
and allows the users to set only those passwords which are
secure enough. Would you like to setup VALIDATE PASSWORD component?

Press y|Y for Yes, any other key for No: n
```

### 4. Instalar PHP

```
vboxuser@UbuntuDesktop:~$ sudo apt install php php-mysql libapache2-mod-php php-
curl php-gd php-mbstring php-xml php-xmldrpc php-intl php-zip -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:
  libapache2-mod-php8.3 libsodium23 libxmldrpc-epi0t64 libzip4t64 php-common
  php8.3 php8.3-cli php8.3-common php8.3-curl php8.3-gd php8.3-intl
  php8.3-mbstring php8.3-mysql php8.3-openssl php8.3-readline php8.3-xml
  php8.3-xmldrpc php8.3-zip
Suggested packages:
```

```
vboxuser@UbuntuDesktop:~$ php -v
PHP 8.3.6 (cli) (built: Jul 14 2025 18:30:55) (NTS)
Copyright (c) The PHP Group
Zend Engine v4.3.6, Copyright (c) Zend Technologies
    with Zend OPcache v8.3.6, Copyright (c), by Zend Technologies
```

```
vboxuser@UbuntuDesktop:~$ sudo systemctl restart apache2
```

## Crear Base de Datos para WordPress

1. Acceder a MySQL y Crear Base de Datos y Usuario

```
vboxuser@UbuntuDesktop:~$ sudo mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.43-0ubuntu0.24.04.2 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> CREATE DATABASE wordpress;
Query OK, 1 row affected (0.02 sec)

mysql> CREATE USER "wpuser"@"localhost" IDENTIFIED BY "WordPress123!";
Query OK, 0 rows affected (0.01 sec)

mysql> GRANT ALL PRIVILEGES ON wordpress.* TO "wpuser"@"localhost";
Query OK, 0 rows affected (0.01 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.01 sec)

mysql> EXIT;
Bye
```

# Instalar WordPress

## 1. Descargar WordPress

```
vboxuser@UbuntuDesktop:~$ cd /tmp
vboxuser@UbuntuDesktop:/tmp$ wget https://wordpress.org/latest.tar.gz
--2025-10-17 08:25:24-- https://wordpress.org/latest.tar.gz
Resolving wordpress.org (wordpress.org)... 198.143.164.252, 2607:f978:5:8002::c68f:a4fc
Connecting to wordpress.org (wordpress.org)|198.143.164.252|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 26928488 (26M) [application/octet-stream]
Saving to: 'latest.tar.gz'

latest.tar.gz      100%[=====>] 25.68M  2.05MB/s   in 13s
2025-10-17 08:25:38 (1.96 MB/s) - 'latest.tar.gz' saved [26928488/26928488]

vboxuser@UbuntuDesktop:/tmp$ tar -xzf latest.tar.gz
```

## 2. Copiar Archivos a Apache

```
vboxuser@UbuntuDesktop:/tmp$ sudo rm -rf /var/www/html/*
vboxuser@UbuntuDesktop:/tmp$ sudo cp -r wordpress/* /var/www/html/
```

## 3. Permisos

```
vboxuser@UbuntuDesktop:/tmp$ sudo chown -R www-data:www-data /var/www/html/
vboxuser@UbuntuDesktop:/tmp$ sudo chmod -R 755 /var/www/html/
```

## 4. Configurar wp-config.php

```
vboxuser@UbuntuDesktop:/tmp$ sudo cp /var/www/html/wp-config-sample.php /var/www/html/wp-config.php
vboxuser@UbuntuDesktop:/tmp$ sudo nano /var/www/html/wp-config.php
```

## 5. Finalizar en el navegador

### ¡Lo lograste!

WordPress ya está instalado. ¡Gracias, y que lo disfrutes!

**Nombre de usuario** wpuser

**Contraseña** *La contraseña que has elegido.*

[Acceder](#)

# Hacer WordPress Accesible desde Internet con Ngrok

## 1. Instalar Ngrok en Ubuntu

```
vboxuser@UbuntuDesktop:/tmp$ cd ~
vboxuser@UbuntuDesktop:~$ wget https://bin.equinox.io/c/bNyj1mQVY4c/ngrok-v3-stable-linux-amd64.tgz
--2025-10-17 08:53:30-- https://bin.equinox.io/c/bNyj1mQVY4c/ngrok-v3-stable-linux-amd64.tgz
Resolving bin.equinox.io (bin.equinox.io)... 35.71.179.82, 99.83.220.108, 75.2.60.68, .
..
Connecting to bin.equinox.io (bin.equinox.io)|35.71.179.82|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 9315483 (8.9M) [application/octet-stream]
Saving to: 'ngrok-v3-stable-linux-amd64.tgz'

ngrok-v3-stable-linux 100%[=====>] 8.88M 2.27MB/s in 4.2s

2025-10-17 08:53:35 (2.09 MB/s) - 'ngrok-v3-stable-linux-amd64.tgz' saved [9315483/9315483]

vboxuser@UbuntuDesktop:~$ tar -xvzf ngrok-v3-stable-linux-amd64.tgz
ngrok
vboxuser@UbuntuDesktop:~$ sudo mv ngrok/usr/local/bin/
[sudo] password for vboxuser:
mv: missing destination file operand after 'ngrok/usr/local/bin/'
Try 'mv --help' for more information.
vboxuser@UbuntuDesktop:~$ sudo mv ngrok /usr/local/bin/
vboxuser@UbuntuDesktop:~$ sudo snap install ngrok
ngrok (v3/stable) 3.29.0 from Ngrok (ngrok-publisher) installed
```

## 2. Verificar instalación

```
vboxuser@UbuntuDesktop:~$ ngrok version
ngrok version 3.30.0
```

## 3. Autenticar Ngrok

```
vboxuser@UbuntuDesktop:~$ ngrok config add-authtoken 34BdSD0AZlFrUi2ebaNjgQDisUS_bTtLo5SgjLDuBm4QH7mq
Authtoken saved to configuration file: /home/vboxuser/.config/ngrok/ngrok.yml
```

## 4. Iniciar túnel HTTP

<http://127.0.0.1:4040>

<https://peckiest-nonostensively-milissa.ngrok-free.dev>

## 5. Probar acceso

