



# TALLER 1: Instalación de LAMP

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# Creación de repositorio Git

Inicie sesión en su cuenta de github.

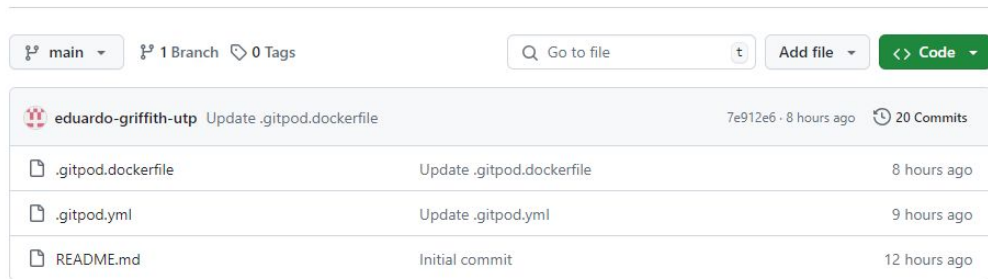
Cree un repositorio nuevo con el siguiente formato:

“DSVII\_TALLER\_1\_NOMBRE\_APELLIDO”

Donde NOMBRE lo reemplaza por su nombre real y APELLIDO lo reemplaza por su apellido real. TODO EN MAYUSCULA.

Suba el archivo `.gitpod.dockerfile` al repositorio.

Suba el archivo `.gitpod.yml` al repositorio.



The screenshot shows the GitHub interface for a repository named 'eduardo-griffith-utp'. At the top, there's a navigation bar with 'main' branch selected, '1 Branch', and '0 Tags'. A search bar 'Go to file' and buttons 'Add file' and 'Code' are also visible. Below this, the repository name 'eduardo-griffith-utp' is followed by the commit message 'Update .gitpod.dockerfile', the commit hash '7e912e6', and the time '8 hours ago'. A table below lists the files changed in this commit:

File	Commit Message	Time
<code>.gitpod.dockerfile</code>	Update .gitpod.dockerfile	8 hours ago
<code>.gitpod.yml</code>	Update .gitpod.yml	9 hours ago
<code>README.md</code>	Initial commit	12 hours ago



# Creación de cuenta en Gitpod.io

Navegue hacia <https://gitpod.io>

Inicie sesión utilizando su cuenta de github.



## Log in to Gitpod



Continue with GitLab



Continue with GitHub



Continue with Bitbucket

Need SSO? [Try Gitpod Enterprise](#)

# Configuración del entorno de trabajo

Presione el botón “Configure your own repository”

Coloque el url de su repositorio de Github y selecciónelo desde la lista desplegable.

Presione el boton “Continue”

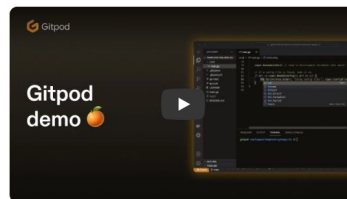
Eduardo's Org

Workspaces

Feedback

## Workspaces

Manage recent and stopped workspaces.



### Create your first workspace

Write code in your personal development environment that's running in the cloud.

[Try a configured demo repository](#)

[Configure your own repository](#)

## New Workspace

Create a new workspace in the Eduardo's Org organization.


<>

Select a repository

^

<>

github.com/eduardo-griffith-utp/gitpod-lamp-empty

 **Standard**

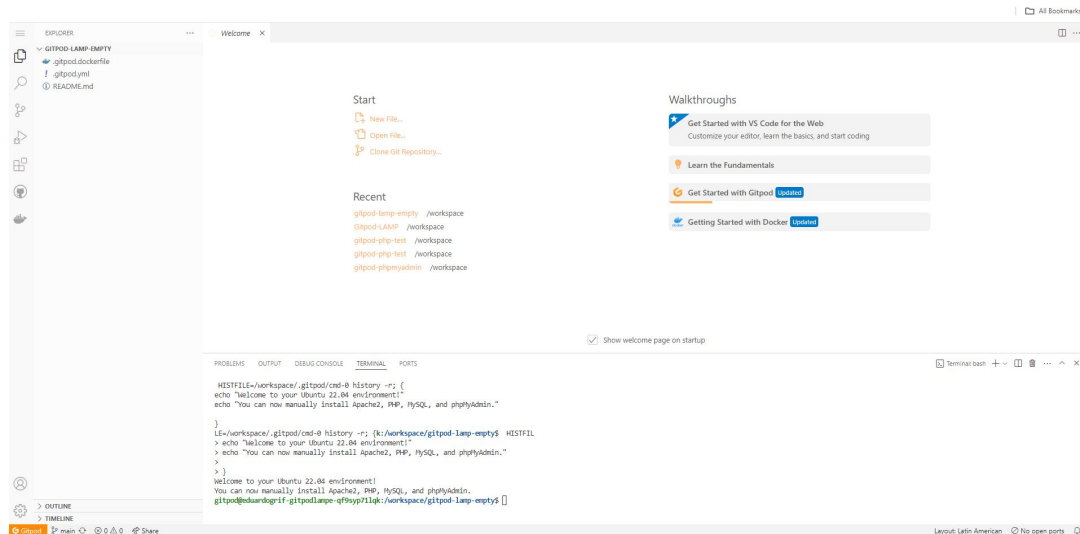
Class Up to 4 cores, 8GB RAM, 30GB storage

^

Continue (Ctrl + Enter)

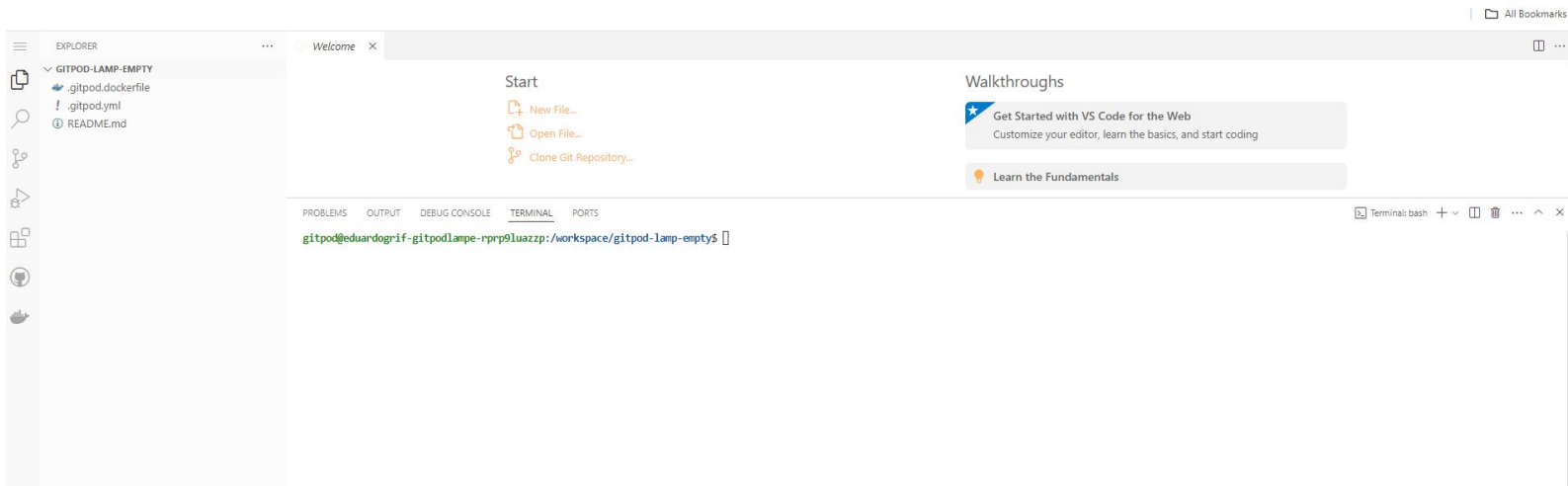
# Vista inicial del entorno de trabajo

Una vez terminada la configuración del entorno de trabajo el mismo debe abrir automáticamente.



# Terminal de comandos

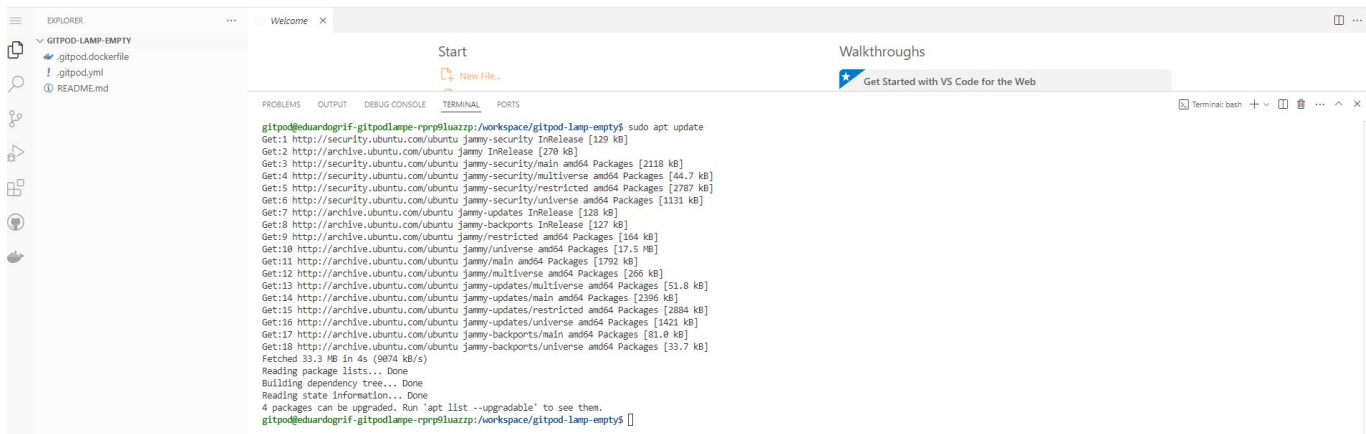
Una vez abierto el entorno de trabajo, localice la sección de la Terminal y expandela para tener mejor visibilidad de los mensajes producidos por los comandos que estaremos ejecutando.



# Actualizar los paquetes del sistema

Primero, asegurémonos de que todos los paquetes del sistema estén actualizados:

→ `sudo apt update`



```
gitpod@duandgrif-gitpodlampe-rpy9l0aazp:/workspace/gitpod-lamp-empty$ sudo apt update
Get:1 http://security.ubuntu.com/ubuntu jammy-security InRelease [129 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy InRelease [270 kB]
Get:3 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [2118 kB]
Get:4 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [44.7 kB]
Get:5 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [2787 kB]
Get:6 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [1131 kB]
Get:7 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [129 kB]
Get:8 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [127 kB]
Get:9 http://archive.ubuntu.com/ubuntu jammy/restricted amd64 Packages [164 kB]
Get:10 http://archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [17.5 MB]
Get:11 http://archive.ubuntu.com/ubuntu jammy/main amd64 Packages [1792 kB]
Get:12 http://archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [266 kB]
Get:13 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [51.8 kB]
Get:14 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [2396 kB]
Get:15 http://archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [2884 kB]
Get:16 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1421 kB]
Get:17 http://archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [81.0 kB]
Get:18 http://archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [33.7 kB]
Fetched 33.3 MB in 4s (9074 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
4 packages can be upgraded. Run 'apt list --upgradable' to see them.
gitpod@duandgrif-gitpodlampe-rpy9l0aazp:/workspace/gitpod-lamp-empty$
```

## Instalar el editor Vim

Instalaremos Vim, un editor de texto potente para trabajar con archivos de configuración y scripts:

```
→ sudo apt-get install vim -y
```

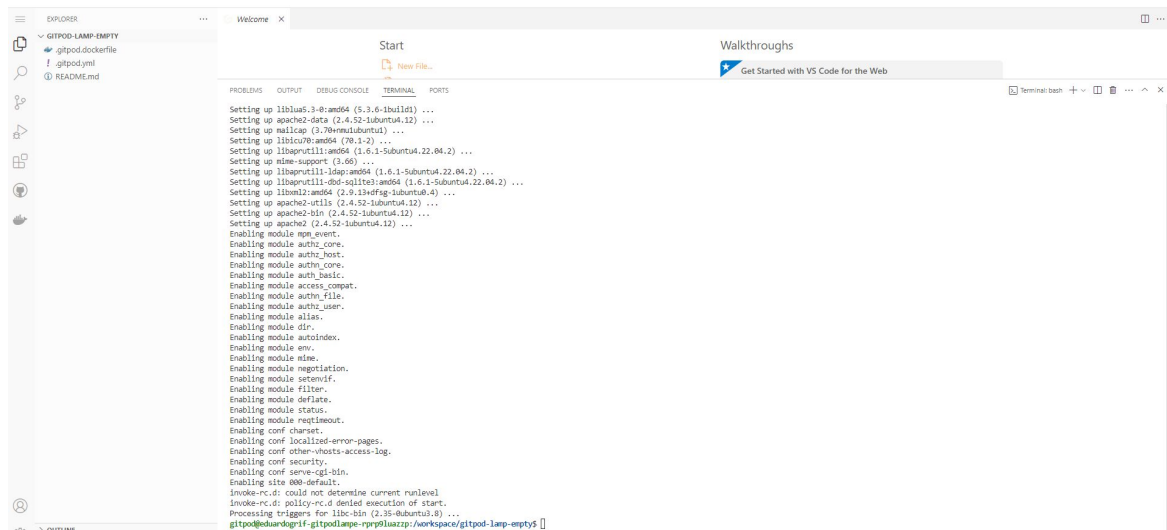
[illegible]



# Instalar Apache

Instalaremos Vim, un editor de texto potente para trabajar con archivos de configuración y scripts:

→ `sudo apt install apache2 -y`



```
Setting up liblua5.3-0:amd64 (5.3.6-1build1) ...
Setting up apache2-data (2.4.52-1ubuntu4.12) ...
Setting up mailcap (3.70emulsubuntu) ...
Setting up libc6:amd64 (2.35-0ubuntu3.1) ...
Setting up libaprutil1:amd64 (1.6.1-Subuntud.22.04.2) ...
Setting up nss-support (3.60) ...
Setting up libaprutil1-dbg:amd64 (1.6.1-Subuntud.22.04.2) ...
Setting up libaprutil1-dev:amd64 (1.6.1-Subuntud.22.04.2) ...
Setting up libssl1:amd64 (2.8.1-3ubuntu4) ...
Setting up apache2-utils (2.4.52-1ubuntu4.12) ...
Setting up apache2-bin (2.4.52-1ubuntu4.12) ...
Setting up apache (2.4.52-1ubuntu4.12) ...
Enabling module mpm_event.
Enabling module auth_core.
Enabling module auth_host.
Enabling module auth_core.
Enabling module auth_basic.
Enabling module access_compat.
Enabling module auth_file.
Enabling module auth_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 ssl.
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.
invoke-rc.d: could not determine current runlevel
invoke-rc.d: policy-rc.d denied execution of start.
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...
gitpod@b4d4d4g:~$ sudo apt install apache2 -y
```

# Verificar la instalación de Apache

Listar el contenido del directorio raíz de Apache para asegurarnos de que todo está en orden:

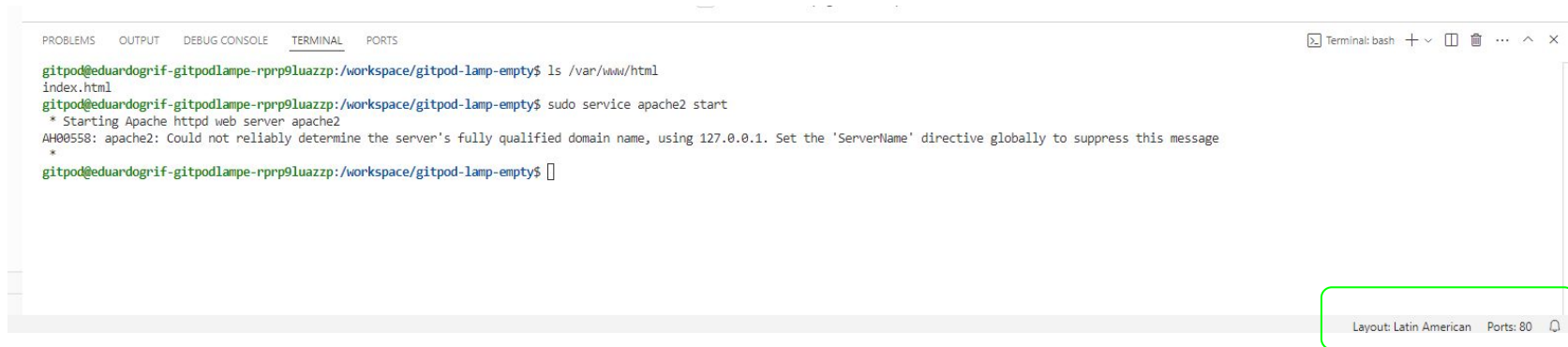
→ `ls /var/www/html`



# Iniciar el servicio de Apache

Inicia el servicio de Apache:

→ `sudo service apache2 start`



```
gitpod@eduardogrif-gitpodlampe-rprp9luazzp:/workspace/gitpod-lamp-empty$ ls /var/www/html
index.html
gitpod@eduardogrif-gitpodlampe-rprp9luazzp:/workspace/gitpod-lamp-empty$ sudo service apache2 start
* Starting Apache httpd web server apache2
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.0.1. Set the 'ServerName' directive globally to suppress this message
*
gitpod@eduardogrif-gitpodlampe-rprp9luazzp:/workspace/gitpod-lamp-empty$
```

Layout: Latin American Ports: 80

Luego de ejecutar este comando el entorno debe indicar qué puerto 80 está abierto.

# Verificar acceso a Apache desde el navegador

→ Presionamos donde dice “Ports: 80”

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS								
Port	Address			Protocol	Description	State		
80	<a href="https://80-eduardogrif-gitpodlampe-rprp9luazzp.ws-us115.gitpod.io">https://80-eduardogrif-gitpodlampe-rprp9luazzp.ws-us115.gitpod.io</a>			HTTP		open (private)		
3306	<a href="https://3306-eduardogrif-gitpodlampe-rprp9luazzp.ws-us115.gitpod.io">https://3306-eduardogrif-gitpodlampe-rprp9luazzp.ws-us115.gitpod.io</a>			HTTP		not served		

Debe aparecer un listado de los puertos expuestos y su estado. El puerto 80 debe aparecer con un círculo verde del lado izquierdo.

→ Presionamos el enlace que se encuentra en la columna “Address” del puerto 80.

# Verificar acceso a Apache desde el navegador

Se debe abrir una nueva pestaña del navegador con el siguiente contenido:



# Instalar PHP

Regresamos al tab Terminal y ejecutamos el comando de instalación de php y algunas de sus dependencias

→ `sudo apt install php libapache2-mod-php php-mysql -y`

```
debconf: (No usable dialog-like program is installed, so the dialog based frontend cannot be used. at /usr/share/perl5/Debconf/FrontEnd/Dialog.pm line 78.)
debconf: falling back to frontend: Readline
Configuring tzdata
-----

Please select the geographic area in which you live. Subsequent configuration questions will narrow this down by presenting a list of cities, representing the time zones in which they are located.

 1. Africa 2. America 3. Antarctica 4. Australia 5. Arctic 6. Asia 7. Atlantic 8. Europe 9. Indian 10. Pacific 11. US 12. Etc
Geographic area: 2]
Progress: [ 57%] [#####]
Progress: [ 57%] [#####]
```

Layout: Latin American Ports: 80

Podemos recibir un prompt solicitandonos indicar el área geográfica del servidor.

→ Introduzca el número 2 y presione la tecla Enter. El número 2 equivale a America.

# Instalar PHP

Podemos recibir un prompt solicitandonos la ciudad o región de nuestra zona horaria.

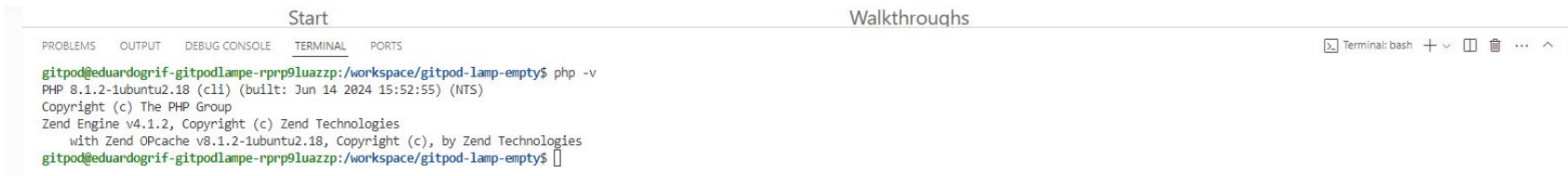
→ Introduzca el número 115 y presione la tecla Enter. El número 115 equivale a Panamá

```
Creating config file /etc/php/8.1/apache2/php.ini with new version
Module mpm_event disabled.
Enabling module mpm_prefork.
apache2_switch_mpm Switch to prefork
invoke-rc.d: could not determine current runlevel
invoke-rc.d: policy-rc.d denied execution of restart.
apache2_invoke: Enable module php8.1
invoke-rc.d: could not determine current runlevel
invoke-rc.d: policy-rc.d denied execution of restart.
Setting up php8.1 (8.1.2-1ubuntu2.18) ...
Setting up libapache2-mod-php (2:8.1+92ubuntu1) ...
Setting up php (2:8.1+92ubuntu1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.8) ...
Processing triggers for php8.1-cli (8.1.2-1ubuntu2.18) ...
Processing triggers for libapache2-mod-php8.1 (8.1.2-1ubuntu2.18) ...
gitpod@eduardogrif-gitpodlampe-rprp9luazp:/workspace/gitpod-lamp-empty$
```

# Verificar la instalación de PHP

Para verificar que PHP está correctamente instalado, ejecuta:

→ `php -v`



The screenshot shows a VS Code interface with a terminal window open. The terminal title is 'Terminal: bash'. The command prompt shows the user is in a directory named 'workspace/gitpod-lamp-empty'. The output of the 'php -v' command is displayed, showing PHP version 8.1.2-1ubuntu2.18 (cli) (built: Jun 14 2024 15:52:55) (NTS) and the Zend Engine version 4.1.2. The output also includes copyright information for The PHP Group and Zend Technologies.

```
gitpod@eduardogrif-gitpodlampe-rprp9luazzp:/workspace/gitpod-lamp-empty$ php -v
PHP 8.1.2-1ubuntu2.18 (cli) (built: Jun 14 2024 15:52:55) (NTS)
Copyright (c) The PHP Group
Zend Engine v4.1.2, Copyright (c) Zend Technologies
with Zend OPcache v8.1.2-1ubuntu2.18, Copyright (c), by Zend Technologies
gitpod@eduardogrif-gitpodlampe-rprp9luazzp:/workspace/gitpod-lamp-empty$
```

Cambiamos la extensión del archivo index.html por .php. Luego navegamos al sitio nuevamente para verificar que continúa cargando:

→ `sudo mv /var/www/html/index.html /var/www/html/index.php`





# Instalar MySQL

Ejecutamos los comandos para instalar el servidor MySQL:

→ `sudo apt install mysql-server -y`

```
done!
update-alternatives: using /var/lib/mecab/dic/ipadic-utf8 to provide /var/lib/mecab/dic/debian (mecab-dictionary) in auto mode
Setting up libhtml-parser-perl:amd64 (3.76-1build2) ...
Setting up libhttp-message-perl (6.36-1) ...
Setting up mysql-server-8.0 (8.0.39-0ubuntu0.22.04.1) ...
debconf: unable to initialize frontend: Dialog
debconf: (No usable dialog-like program is installed, so the dialog based frontend cannot be used. at /usr/share/perl5/Debconf/FrontEnd/Dialog.pm line 78.)
debconf: falling back to frontend: Readline
invoke-rc.d: could not determine current runlevel
invoke-rc.d: policy-rc.d denied execution of stop.
update-alternatives: using /etc/mysql/mysql.cnf to provide /etc/mysql/my.cnf (my.cnf) in auto mode
Renaming removed key_buffer and myisam-recover options (if present)
mysqld will log errors to /var/log/mysql/error.log
mysqld is running as pid 11062
invoke-rc.d: could not determine current runlevel
invoke-rc.d: policy-rc.d denied execution of start.
Setting up libcgi-pm-perl (4.54-1) ...
Setting up libhtml-template-perl (2.97-1.1) ...
Setting up mysql-server (8.0.39-0ubuntu0.22.04.1) ...
Setting up libcgi-fast-perl (1:2.15-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.8) ...
gitpod@eduardogrif-gitpodlampe-rprp9luazzp:/workspace/gitpod-lamp-empty$
```

# Iniciar el servicio de MySQL

Inicia el servicio de MySQL:

→ `sudo service mysql start`

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Terminal: bash + ▾ [ ] [ ] ... ^ ×

```
gitpod@eduardogrif-gitpodlampe-rprp9luazzp:/workspace/gitpod-lamp-empty$ sudo service mysql start
* Starting MySQL database server mysqld
su: warning: cannot change directory to /nonexistent: No such file or directory

gitpod@eduardogrif-gitpodlampe-rprp9luazzp:/workspace/gitpod-lamp-empty$
```

[ OK ]



# Configurar la contraseña de MySQL

Accede a la consola de MySQL y cambia la contraseña del usuario root:

→ `sudo mysql`

Dentro de la consola de MySQL, ejecuta los siguientes comandos:

→ `ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'password'; exit`

```
gitpod@eduardogrif-gitpodlampe-rprp9luazzp:/workspace/gitpod-lamp-empty$ sudo mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 10
Server version: 8.0.39-0ubuntu0.22.04.1 (Ubuntu)
```

```
Copyright (c) 2000, 2024, Oracle and/or its affiliates.
```

```
Oracle is a registered trademark of Oracle Corporation and/or its
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> █
```

```
gitpod@eduardogrif-gitpodlampe-rprp9luazzp:/workspace/gitpod-lamp-empty$ sudo mysql
ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: NO)
gitpod@eduardogrif-gitpodlampe-rprp9luazzp:/workspace/gitpod-lamp-empty$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 12
Server version: 8.0.39-0ubuntu0.22.04.1 (Ubuntu)
```

```
Copyright (c) 2000, 2024, Oracle and/or its affiliates.
```

```
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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> ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'password';
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> exit
Bye
```

```
gitpod@eduardogrif-gitpodlampe-rprp9luazzp:/workspace/gitpod-lamp-empty$ █
```



# Instalar phpMyAdmin y extensiones de PHP

Instala phpMyAdmin y algunas extensiones de PHP necesarias:

→ `sudo apt install phpmyadmin php-mbstring php-zip php-gd php-json php-curl -y`

The phpmyadmin package must have a database installed and configured before it can be used. This can be optionally handled with dbconfig-common.

If you are an advanced database administrator and know that you want to perform this configuration manually, or if your database has already been installed and configured, you should refuse this option. Details on what needs to be done should most likely be provided in /usr/share/doc/phpmyadmin.

Otherwise, you should probably choose this option.

Configure database for phpmyadmin with dbconfig-common? [yes/no]

Progress: [ 98%] [#####...]

Recibiremos un prompt solicitándonos indicar si configura phpmyadmin con dbconfig-common.

→ Introducimos el texto “yes” y presionamos la tecla Enter



# Instalar phpMyAdmin y extensiones de PHP

Recibiremos un prompt solicitandonos indicar la contraseña que será asignada al usuario phpmyadmin

- Introducimos el texto “password”. El texto que introducimos no será visible pero si esta siendo capturado

```
Please provide a password for phpmyadmin to register with the database server. If left blank, a random password will be generated.
```

```
MySQL application password for phpmyadmin:
```

```
Password confirmation:
```



# Instalar phpMyAdmin y extensiones de PHP

Luego nos pedirá indicar que servidor deseamos utilizar con phpmyadmin.

→ Introducimos el texto 1 para apache2

```
Determining localhost credentials from /etc/mysql/debian.cnf: succeeded.  
Please choose the web server that should be automatically configured to run phpMyAdmin.
```

```
1. apache2 2. lighttpd
```

```
(Enter the items or ranges you want to select, separated by spaces.)
```

```
Web server to reconfigure automatically: 1
```

```
Progress: [ 98%] [#####.....]
```



# Reiniciar el servicio de Apache

Reinicia Apache para que reconozca las nuevas configuraciones y extensiones de PHP:

→ `sudo service apache2 restart`

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
gitpod@eduardogrif-gitpodlampe-rprp9luazzp:/workspace/gitpod-lamp-empty$ sudo service apache2 restart
```

```
* Restarting Apache httpd web server apache2
```

```
AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.0.1. Set the 'ServerName' directive globally to suppress this message
```

```
gitpod@eduardogrif-gitpodlampe-rprp9luazzp:/workspace/gitpod-lamp-empty$
```



# Configurar los privilegios de phpMyAdmin en MySQL

Accede a MySQL como usuario root para otorgar privilegios a phpMyAdmin:

→ `sudo mysql -u root -p`

Introduce "password" como contraseña.

Dentro de la consola de MySQL, ejecuta los siguientes comandos:

→ `GRANT ALL PRIVILEGES ON *.* TO 'phpmyadmin'@'localhost' WITH GRANT OPTION;`  
→ `FLUSH PRIVILEGES;`  
→ `exit`

```
gitpod@eduardogrif-gitpodlampe-rprp9luazzp:/workspace/gitpod-lamp-empty$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 26
Server version: 8.0.39-0ubuntu0.22.04.1 (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> GRANT ALL PRIVILEGES ON *.* TO 'phpmyadmin'@'localhost' WITH GRANT OPTION;
Query OK, 0 rows affected (0.00 sec)

mysql> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.00 sec)

mysql> exit
Bye
gitpod@eduardogrif-gitpodlampe-rprp9luazzp:/workspace/gitpod-lamp-empty$
```





# Editar la configuración de phpMyAdmin

Edita el archivo de configuración de phpMyAdmin para asegurar que se conecta correctamente al servidor MySQL:

→ `sudo vi /etc/phpmyadmin/config-db.php`

Reemplaza:

→ `$dbserver='localhost';`

Por:

→ `$dbserver='127.0.0.1';`

```
<?php
##
## database access settings in php format
## automatically generated from /etc/dbconfig-common/phpmyadmin.conf
## by /usr/sbin/dbconfig-generate-include
##
## by default this file is managed via ucf, so you shouldn't have to
## worry about manual changes being silently discarded. *however*,
## you'll probably also want to edit the configuration file mentioned
## above too.
##
$dbuser='phpmyadmin';
$dbpass='password';
$dbsepath='';
$dbname='phpmyadmin';
$dbserver='127.0.0.1';
$dbport='3306';
$dbtype='mysql';
```

# Verificar acceso a phpMyAdmin

Para finalizar verificamos el acceso a phpMyAdmin navegando hacia nuestro sitio web y añadiendo /phpmyadmin al URL.

Una vez carga el sitio y se muestra pantalla de inicio de sesión, introducimos:

- Username: phpmyadmin
- Password: password

