

BOOTCAMP ESPECIALIDAD GNU/LINUX (2023)

Lab 08 - Instalación de Phpmyadmin

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1. Notas

Se ha reutilizado la máquina de la entrega del laboratorio 7, para no tener que reinstalar MariaDB server.

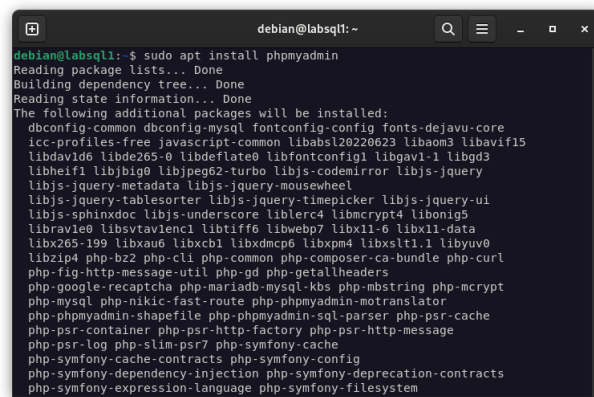
Usualmente la instalación de phpmyadmin con Apache2 es más directa que nginx, así que lo haremos en nginx para poder ver cómo los componentes trabajan juntos.

2. Instalación

Para instalar Phpmyadmin, simplemente tenemos que ejecutar los siguientes comandos:

- 1 `sudo apt update && sudo apt dist-upgrade -y`
- 2 `sudo apt install phpmyadmin nginx php-fpm`

El paquete **php-fpm**, es necesario para que nginx pueda trabajar con phpmyadmin, ya que este no tiene como en apache2, un módulo directo que le retorne los HTML que debe pasar por HTTP.



```
debian@labsql1: ~  
debian@labsql1:~$ sudo apt install phpmyadmin  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
The following additional packages will be installed:  
dbconfig-common dbconfig-mysql fontconfig-config fonts-dejavu-core  
icc-profiles-free javascript-common libabsl20220623 libaom3 libavif15  
libdav1d6 libde265-0 libdeflate0 libfontconfig1 libgav1-1 libgd3  
libheif1 libjbig0 libjpeg62-turbo libjs-codemirror libjs-jquery  
libjs-jquery-metadata libjs-jquery-mousewheel  
libjs-jquery-tablesorter libjs-jquery-timepicker libjs-jquery-ui  
libjs-sphinxdoc libjs-underscore liblerc4 libmcrypt4 libonig5  
libraw1e0 libstavlenc1 libtiff6 libwebp7 libx11-6 libx11-data  
libx265-199 libxau6 libxcb1 libxdmcp6 libxpm4 libxslt1.1 libyuv0  
libzip4 php-bz2 php-cli php-common php-composer-ca-bundle php-curl  
php-fig-http-message-util php-gd php-getallheaders  
php-google-recaptcha php-mariadb-mysql-kbs php-mbstring php-mcrypt  
php-mysql php-nikic-fast-route php-phpmyadmin-motranslator  
php-phpmyadmin-shapefile php-phpmyadmin-sql-parser php-psr-cache  
php-psr-container php-psr-http-factory php-psr-http-message  
php-psr-log php-slim-psr7 php-symfony-cache  
php-symfony-cache-contracts php-symfony-config  
php-symfony-dependency-injection php-symfony-deprecation-contracts  
php-symfony-expression-language php-symfony-filesystem
```

Figura 1: Instalación de phpmyadmin, dependencias necesarias.

Durante la instalación nos preguntará si queremos configurarlo para Apache2, o para lighthttpd. No marcamos ninguna opción y luego nos pedirá la configuración de una contraseña para una base de datos que debe ser alojada por el phpmyadmin para sus configuraciones.

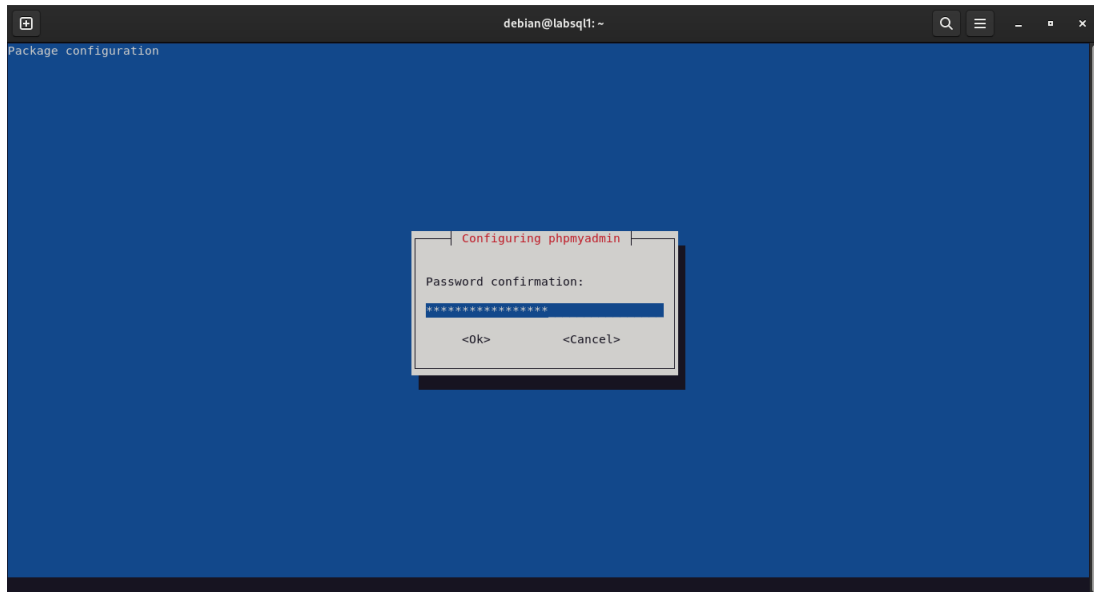


Figura 2: Configuración de la contraseña de Phpmyadmin.

```
debian@labsql: /etc/nginx/sites-available$ sudo apt install php-fpm
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  php8.2-fpm
Suggested packages:
  php-pear
The following NEW packages will be installed:
  php-fpm php8.2-fpm
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.
Need to get 1746 kB of archives.
After this operation, 5754 kB of additional disk space will be used.
Do you want to continue? [Y/n]
Get:1 file:/etc/apt/mirrors/debian.list Mirrorlist [30 B]
Get:2 https://deb.debian.org/debian bookworm/main amd64 php8.2-fpm amd64 8.2.7-1
~deb12u1 [1743 kB]
Get:3 https://deb.debian.org/debian bookworm/main amd64 php-fpm all 2:8.2+93 [37
12 B]
Fetched 1746 kB in 3s (642 kB/s)
Selecting previously unselected package php8.2-fpm.
(Reading database ... 39589 files and directories currently installed.)
Preparing to unpack .../php8.2-fpm 8.2.7-1-deb12u1_amd64.deb ...
Unpacking php8.2-fpm (8.2.7-1-deb12u1) ...
```

Figura 3: Instalación de php-fpm, dependencias necesarias.

```
debian@phpmyadmin: ~  
Please reboot the system when convenient.  
dbus.service is a disabled or a static unit, not starting it.  
Setting up libpam-systemd:amd64 (252.12-1-deb12u1) ...  
Setting up bind9-host (1:9.18.16-1-deb12u1) ...  
Setting up systemd-resolved (252.12-1-deb12u1) ...  
Setting up libnss-resolve:amd64 (252.12-1-deb12u1) ...  
Processing triggers for libc-bin (2.36-9-deb12u1) ...  
Processing triggers for man-db (2.11.2-2) ...  
Processing triggers for initramfs-tools (0.142) ...  
update-initramfs: Generating /boot/initrd.img-6.1.0-11-amd64  
debian@phpmyadmin:~$ sudo apt install nginx  
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 ssl-cert  
The following NEW packages will be installed:  
  nginx nginx-common  
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.  
Need to get 640 kB of archives.  
After this operation, 1696 kB of additional disk space will be used.  
Do you want to continue? [Y/n]
```

Figura 4: Instalación de nginx, dependencias necesarias.

Una vez que lo tenemos todo instalado, si accedemos al virtualhost principal, lo que veremos es la página de nginx y además dentro de `/etc/nginx/sites-available`, no hay otro fichero de configuración disponible asociado a phpmyadmin. Por lo que tendremos que crearlo manualmente a partir del default.

Otro punto a tener en cuenta, es que el directorio de phpmyadmin, no está en el directorio donde se sirven las webs por parte del servicio web `/var/www/`, por lo que debemos crear un enlace simbólico desde donde existen dichos ficheros de configuración que están localizados en `/usr/share/phpmyadmin`.

```
debian@phpmyadmin: ~  
valid lft forever preferred_lft forever  
inet6 ::1/128 scope host  
    valid lft forever preferred_lft forever  
2: ens3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP grou  
p default qlen 1000  
    link/ether 52:54:00:0e:25:aa brd ff:ff:ff:ff:ff:ff  
    altname enp0s3  
    inet 192.168.122.173/24 metric 100 brd 192.168.122.255 scope global dynamic  
ens3  
    valid lft 3180sec preferred_lft 3180sec  
    inet6 fe80::5054:ff:fe0e:25aa/64 scope link  
    valid lft forever preferred_lft forever  
debian@phpmyadmin:~$ ls  
debian@phpmyadmin:~$ ls /etc/nginx/sites-available/  
default  
debian@phpmyadmin:~$ ls /usr/share/php  
php/      php8.2-curl/  php8.2-mysql/  php8.2-xml/  
php8.2-bz2/  php8.2-gd/    php8.2-openssl/  php8.2-zip/  
php8.2-common/  php8.2-mbstring/  php8.2-readline/  phpmyadmin/  
debian@phpmyadmin:~$ ls /usr/share/phpmyadmin/  
autoload.php      favicon.ico  libraries  show_config_errors.php  themes  
config.sample.inc.php  index.php  locale      sql                      url.php  
doc                js          robots.txt  templates
```

Figura 5: Localización de los ficheros de configuración y de phpmyadmin.

Como primer paso, vamos a preparar los directorios de phpmyadmin para que estén listos para ser servidos. Para ello ejecutamos los siguientes comandos:

- 1 `sudo rm -rf /var/www/*`
- 2 `sudo ln -s /usr/share/phpmyadmin /var/www/`

- 3 # Listamos el directorio /var/www para ver si el enlace simbolico se ha realizado correctamente
- 4 sudo chown -R www-data:www-data /var/www/phpmyadmin

```

debian@phpmyadmin:~$ ls
debian@phpmyadmin:~$ ls /etc/nginx/sites-available/
default
debian@phpmyadmin:~$ ls /usr/share/php
php/      php8.2-curl/  php8.2-mysql/  php8.2-xml/
php8.2-bz2/  php8.2-gd/    php8.2-openssl/  php8.2-zip/
php8.2-common/  php8.2-mbstring/  php8.2-readline/  phpmyadmin/
debian@phpmyadmin:~$ ls /usr/share/phpmyadmin/
autoload.php  favicon.ico  libraries  show_config_errors.php  themes
config.sample.inc.php  index.php  locale  sql  url.php
doc            js         robots.txt  templates
debian@phpmyadmin:~$ sudo rm -rf /var/www/*
debian@phpmyadmin:~$ sudo ln -s /usr/share/phpmyadmin/ /var/www/
debian@phpmyadmin:~$ sudo ls -l /var/www/
total 0
lrwxrwxrwx 1 root root 22 Aug 25 10:23 phpmyadmin -> /usr/share/phpmyadmin/
debian@phpmyadmin:~$ sudo chown -R www-data:www-data /var/www/phpmyadmin
debian@phpmyadmin:~$ sudo ls -l
total 0
lrwxrwxrwx 1 www-data www-data 22 Aug 25 10:23 phpmyadmin -> /usr/share/phpmyadmin/
debian@phpmyadmin:~$ sudo ls -l /var/www/
total 0
lrwxrwxrwx 1 www-data www-data 22 Aug 25 10:23 phpmyadmin -> /usr/share/phpmyadmin/
debian@phpmyadmin:~$

```

Figura 6: Creación del enlace simbólico del directorio de phpmyadmin.

Ahora tenemos que configurar el fichero del virtualhost default que está localizado en `/etc/nginx/sites-available/default`, para poder hacer funcionar el phpmyadmin, así como que tenga su intérprete php-fpm y su nombre **mybddd.com**. Además debemos cambiar la versión de php-fpm, ya que esta es mas moderna que la que está en el fichero.

```

GNU nano 7.2 /etc/nginx/sites-available/default *
# Don't use them in a production server!
#
# include snippets/snakeoil.conf;

root /var/www/phpmyadmin;

# Add index.php to the list if you are using PHP
index index.php;

server_name mybddd.com;

location / {
    # First attempt to serve request as file, then
    # as directory, then fall back to displaying a 404.
    try_files $uri $uri/ =404;
}

# pass PHP scripts to FastCGI server
#
location ~ \.php$ {
    include snippets/fastcgi-php.conf;
    #
    # With php-fpm (or other unix sockets):
    fastcgi_pass unix:/run/php/php8.2-fpm.sock;
    # With php-cgi (or other tcp sockets):
    fastcgi_pass 127.0.0.1:9000;
}

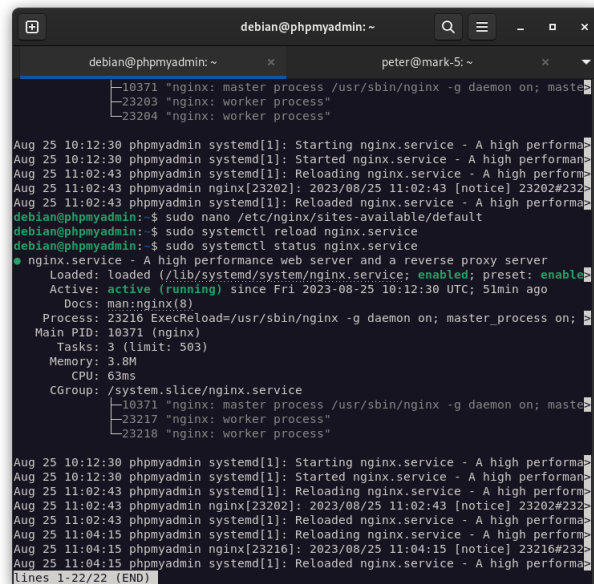
# deny access to .htaccess files, if Apache's document root
# concurs with nginx's one
#

```

Figura 7: Edición del fichero default.

Luego de editar el fichero de default, tenemos que reiniciar el servicio y verificar que su

estado esté correcto, en otro caso podría haberse producido un error a la hora de editar el fichero de configuración.



```
debian@phpmyadmin: ~  
└─10371 "nginx: master process /usr/sbin/nginx -g daemon on; maste  
└─23203 "nginx: worker process"  
└─23204 "nginx: worker process"  
  
Aug 25 10:12:30 phpmyadmin systemd[1]: Starting nginx.service - A high performan  
Aug 25 10:12:30 phpmyadmin systemd[1]: Started nginx.service - A high performan  
Aug 25 11:02:43 phpmyadmin systemd[1]: Reloading nginx.service - A high perform  
Aug 25 11:02:43 phpmyadmin nginx[23202]: 2023/08/25 11:02:43 [notice] 23202#2320  
Aug 25 11:02:43 phpmyadmin systemd[1]: Reloading nginx.service - A high perform  
debian@phpmyadmin:~$ sudo nano /etc/nginx/sites-available/default  
debian@phpmyadmin:~$ sudo systemctl reload nginx.service  
debian@phpmyadmin:~$ sudo systemctl status nginx.service  
● nginx.service - A high performance web server and a reverse proxy server  
   Loaded: loaded (/lib/systemd/system/nginx.service; enabled; preset: enable  
   Active: active (running) since Fri 2023-08-25 10:12:30 UTC; 51min ago  
     Docs: man:nginx(8)  
  Process: 23216 ExecReload=/usr/sbin/nginx -g daemon on; master_process on;  
    Main PID: 10371 (nginx)  
       Tasks: 3 (limit: 503)  
      Memory: 3.8M  
         CPU: 63ms  
    CGroup: /system.slice/nginx.service  
            └─10371 "nginx: master process /usr/sbin/nginx -g daemon on; maste  
              └─23217 "nginx: worker process"  
                └─23218 "nginx: worker process"  
  
Aug 25 10:12:30 phpmyadmin systemd[1]: Starting nginx.service - A high performan  
Aug 25 10:12:30 phpmyadmin systemd[1]: Started nginx.service - A high performan  
Aug 25 11:02:43 phpmyadmin systemd[1]: Reloading nginx.service - A high perform  
Aug 25 11:02:43 phpmyadmin nginx[23202]: 2023/08/25 11:02:43 [notice] 23202#2320  
Aug 25 11:02:43 phpmyadmin systemd[1]: Reloading nginx.service - A high perform  
Aug 25 11:04:15 phpmyadmin systemd[1]: Reloading nginx.service - A high perform  
Aug 25 11:04:15 phpmyadmin nginx[23216]: 2023/08/25 11:04:15 [notice] 23216#2320  
Aug 25 11:04:15 phpmyadmin systemd[1]: Reloading nginx.service - A high perform  
Lines 1-22/22 (END)
```

Figura 8: Reiniciando el servicio de nginx.

- 1 `sudo systemctl restart nginx.service`
- 2 `sudo systemctl status nginx.service`

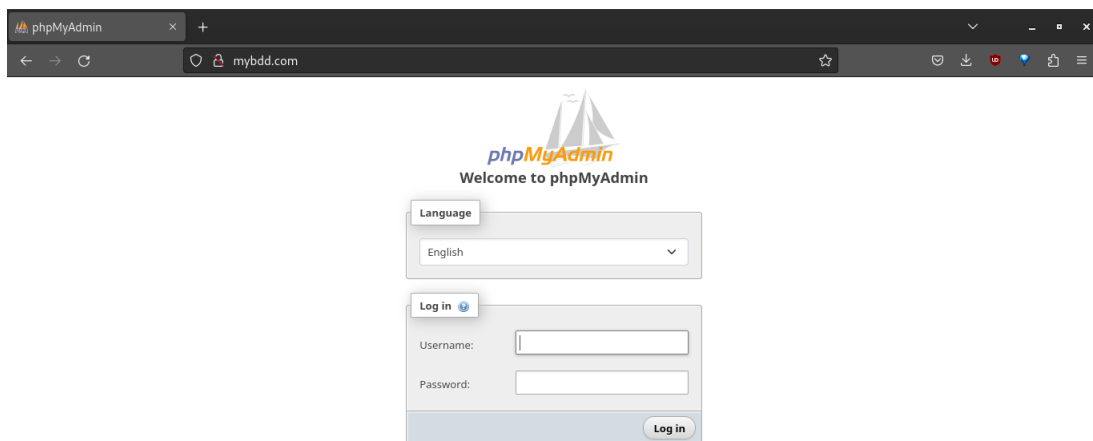


Figura 9: Entrando en phpmyadmin.

Para la actividad hemos generado un usuario y una base de datos vacía. La tabla ha sido creada con phpmyadmin.

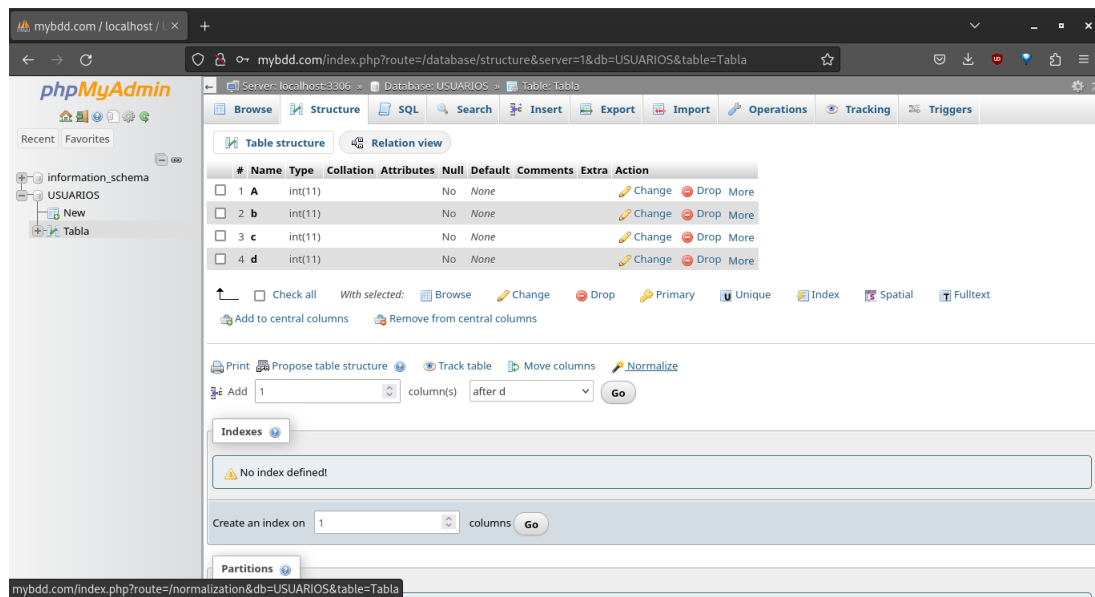


Figura 10: Tabla del usuario en la base de datos de USUARIOS.