

# **MANUAL DE INSTALACION Y TALLER**

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- Paso 1: Actualizar el sistema

- Paso 2: Instalar MariaDB

```
Configurando mariadb-client-core (1:10.11.13~0ubuntu0.24.04.1) ...
Configurando mariadb-client (1:10.11.13~0ubuntu0.24.04.1) ...
Configurando mariadb-server (1:10.11.13~0ubuntu0.24.04.1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/mariadb.service → /usr/lib/systemd/system/mariadb.service.
Configurando mariadb-plugin-provider-bzrp2 (1:10.11.13~0ubuntu0.24.04.1) ...
Configurando mariadb-plugin-provider-lzma (1:10.11.13~0ubuntu0.24.04.1) ...
Configurando mariadb-plugin-provider-lzo (1:10.11.13~0ubuntu0.24.04.1) ...
Configurando mariadb-plugin-provider-lz4 (1:10.11.13~0ubuntu0.24.04.1) ...
Configurando mariadb-plugin-provider-snappy (1:10.11.13~0ubuntu0.24.04.1) ...
Procesando disparadores para man-db (2.12.0-4build2) ...
Procesando disparadores para libc-bin (2.39~0ubuntu8.4) ...
Procesando disparadores para mariadb-server (1:10.11.13~0ubuntu0.24.04.1) ...
Scanning processes...
Scanning linux images...

Running kernel seems to be up-to-date.

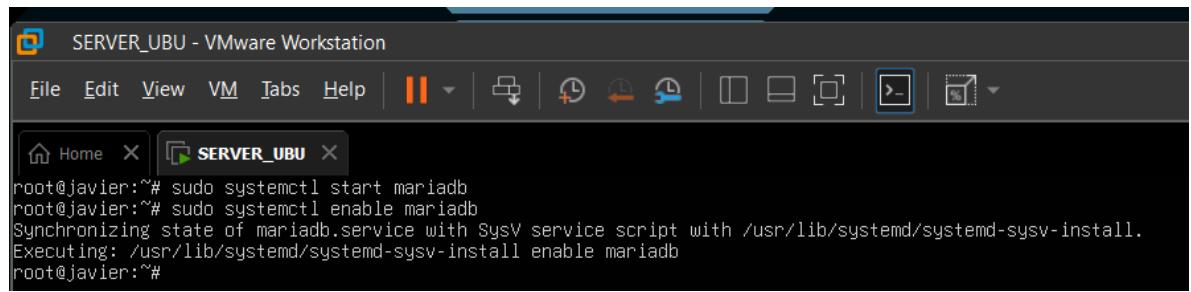
No services need to be restarted.

No containers need to be restarted.

No user sessions are running outdated binaries.

No VM guests are running outdated hypervisor (qemu) binaries on this host.
```

- Paso 3: Iniciar y habilitar MariaDB



```
root@javier:~# sudo systemctl start mariadb
root@javier:~# sudo systemctl enable mariadb
Synchronizing state of mariadb.service with SysV service script with /usr/lib/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable mariadb
root@javier:~#
```

- Paso 4: Asegurar la instalación de MariaDB

```
You already have your root account protected, so you can safely answer 'n'.
```

```
Change the root password? [Y/n] y
New password:
Re-enter new password:
Password updated successfully!
Reloading privilege tables..
... Success!
```

By default, a MariaDB installation has an anonymous user, allowing anyone to log into MariaDB without having to have a user account created for them. This is intended only for testing, and to make the installation go a bit smoother. You should remove them before moving into a production environment.

```
Remove anonymous users? [Y/n] y
... Success!
```

Normally, root should only be allowed to connect from 'localhost'. This ensures that someone cannot guess at the root password from the network.

```
Disallow root login remotely? [Y/n] y
... Success!
```

By default, MariaDB comes with a database named 'test' that anyone can access. This is also intended only for testing, and should be removed before moving into a production environment.

```
Remove test database and access to it? [Y/n] y
- Dropping test database...
... Success!
- Removing privileges on test database...
... Success!
```

Reloading the privilege tables will ensure that all changes made so far will take effect immediately.

```
Reload privilege tables now? [Y/n] y
... Success!
```

Cleaning up...

All done! If you've completed all of the above steps, your MariaDB installation should now be secure.

```
Thanks for using MariaDB!
root@javier:~# _
```

- Paso 5: Verificar la instalación

```

root@javier:~# sudo mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 41
Server version: 10.11.13-MariaDB-0ubuntu0.24.04.1 Ubuntu 24.04

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

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

MariaDB [(none)]> show databases
    ->
    -> ;
+-----+
| Database      |
+-----+
| information_schema |
| mysql          |
| performance_schema |
| sys            |
+-----+
4 rows in set (0,006 sec)

MariaDB [(none)]>

```

## **PUNTO B**

1. ¿Tienes acceso root o privilegios de sudo en el servidor Ubuntu?

```

root@javier:~# whoami
root

```

2. ¿Está actualizado el sistema operativo?

```

Conf libtraceevent1 (1:1.8.2-1ubuntu2.1 Ubuntu:24.04/noble-updates [amd64])
Conf pci.ids (0.0~2024.09.31-1ubuntu0.1 Ubuntu:24.04/noble-updates [all])
Conf libpackagekit-glib2-18 (1.2.8-2ubuntu1.2 Ubuntu:24.04/noble-updates [amd64])
Conf packagekit-tools (1.2.8-2ubuntu1.2 Ubuntu:24.04/noble-updates [amd64])
Conf packagekit (1.2.8-2ubuntu1.2 Ubuntu:24.04/noble-updates [amd64])
Conf plymouth-theme-ubuntu-text (24.004.60-1ubuntu7.1 Ubuntu:24.04/noble-updates [amd64])
Conf plymouth (24.004.60-1ubuntu7.1 Ubuntu:24.04/noble-updates [amd64])
Conf cryptsetup-initramfs (2:2.7.0-1ubuntu4.2 Ubuntu:24.04/noble-updates [all])
Conf cryptsetup-bin (2:2.7.0-1ubuntu4.2 Ubuntu:24.04/noble-updates [amd64])
Conf cryptsetup (2:2.7.0-1ubuntu4.2 Ubuntu:24.04/noble-updates [amd64])
Conf libdevmapper-event1.02.1 (2:1.02.185-9ubuntu3.2 Ubuntu:24.04/noble-updates [amd64])
Conf liblvm2cmd2.03 (2:0.3.16-3ubuntu3.2 Ubuntu:24.04/noble-updates [amd64])
Conf dmeventd (2:1.02.185-9ubuntu3.2 Ubuntu:24.04/noble-updates [amd64])
Conf libfwupd2 (1.9.29-9ubuntu1~24.04.1ubuntu1 Ubuntu:24.04/noble-updates [amd64])
Conf fwupd (1.9.29-9ubuntu1~24.04.1ubuntu1 Ubuntu:24.04/noble-updates [amd64])
Conf gir1.2-packagekitglib-1.0 (1.2.8-2ubuntu1.2 Ubuntu:24.04/noble-updates [amd64])
Conf grub-pc (2.12-1ubuntu7.3 Ubuntu:24.04/noble-updates [amd64])
Conf grub2-common (2.12-1ubuntu7.3 Ubuntu:24.04/noble-updates [amd64])
Conf grub-pc-bin (2.12-1ubuntu7.3 Ubuntu:24.04/noble-updates [amd64])
Conf grub-common (2.12-1ubuntu7.3 Ubuntu:24.04/noble-updates [amd64])
Conf landscape-common (24.02-0ubuntu5.3 Ubuntu:24.04/noble-updates [amd64])
Conf libldap2-common (2.6.7+dfsg-1~exp1ubuntu8.2 Ubuntu:24.04/noble-updates [all])
Conf libldap2 (2.6.7+dfsg-1~exp1ubuntu8.2 Ubuntu:24.04/noble-updates [amd64])
Conf libnvme1t64 (1.8-3ubuntu1 Ubuntu:24.04/noble-updates [amd64])
Conf lvm2 (2.03.16-3ubuntu3.2 Ubuntu:24.04/noble-updates [amd64])
Conf pollinate (4.33-3.1ubuntu1.1 Ubuntu:24.04/noble-updates [all])
Conf software-properties-common (0.99.49.2 Ubuntu:24.04/noble-updates [all])
Conf python3-software-properties (0.99.49.2 Ubuntu:24.04/noble-updates [all])
Conf snapd (2.67.1+24.04 Ubuntu:24.04/noble-updates [amd64])
Conf sosreport (4.8.2-0ubuntu6~24.04.1 Ubuntu:24.04/noble-updates [amd64])
Conf thermald (2.5.6-2ubuntu0.24.04.2 Ubuntu:24.04/noble-updates [amd64])
Conf cloud-init (25.1.2-0ubuntu0~24.04.1 Ubuntu:24.04/noble-updates [all])
root@javier:#

```

No:

3. ¿Deseas utilizar la versión de MariaDB disponible en los repositorios oficiales de Ubuntu o prefieres instalar una versión más reciente desde el sitio web de MariaDB?

Esta es la versión de repos

```
root@javier:~# apt-cache policy mariadb-server
mariadb-server:
  Instalados: 1:10.11.13-0ubuntu0.24.04.1
  Candidato: 1:10.11.13-0ubuntu0.24.04.1
  Tabla de versión:
*** 1:10.11.13-0ubuntu0.24.04.1 500
      500 http://archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages
      500 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages
      100 /var/lib/dpkg/status
  1:10.11.7-2ubuntu2 500
      500 http://archive.ubuntu.com/ubuntu noble/universe amd64 Packages
root@javier:~#
```

4. ¿Deseas habilitar MariaDB para que se inicie automáticamente después de un reinicio del servidor?

Se inicia automáticamente

```
root@javier:~# systemctl is-enabled mariadb
enabled
```

5. ¿Tienes configurada una contraseña segura para el usuario root de MariaDB?

Si es segura

6. ¿Vas a necesitar habilitar el acceso remoto para la base de datos?

Solo tengo permisos de conexiones locales:

```
root@javier:~# sudo ss -tunlp | grep 3306
tcp  LISTEN 0      80          127.0.0.1:3306        0.0.0.0:*      users:(("mariadb",pid=16498,fd=21))
root@javier:~# _
```

7. ¿Quieres eliminar las bases de datos de prueba y las cuentas de usuario anónimos?

Si

```
MariaDB [(none)]> SELECT User, Host FROM mysql.user; SHOW DATABASES;
+-----+-----+
| User      | Host       |
+-----+-----+
| mariadb.sys | localhost |
| mysql      | localhost |
| root       | localhost |
+-----+-----+
3 rows in set (0,001 sec)

+-----+
| Database      |
+-----+
| information_schema |
| mysql          |
| performance_schema |
| sys            |
+-----+
4 rows in set (0,000 sec)
```

8. ¿Vas a configurar algún firewall (como UFW o iptables) para permitir conexiones a MariaDB?

No

```
root@javier:~# sudo ufw status
Status: inactive
```

9. ¿Vas a configurar MariaDB para que utilice encriptación de datos o alguna otra medida de seguridad avanzada?

Esta cifrado:

```
root@javier:~# sudo grep -i ssl /etc/mysql/mariadb.conf.d/50-server.cnf
# * SSL/TLS
#ssl-ca = /etc/mysql/cacert.pem
#ssl-cert = /etc/mysql/server-cert.pem
#ssl-key = /etc/mysql/server-key.pem
root@javier:~# _
```

10. ¿Vas a configurar MariaDB para que utilice configuraciones especiales de rendimiento o escalabilidad, como la optimización de memoria o la creación de réplicas?

No hay optimizaciones todavía:

```
root@javier:~# sudo grep -E "innodb|buffer|cache|thread|max_connections" /etc/mysql/mariadb.conf.d/50-server.cnf
#key_buffer_size      = 128M
#thread_stack         = 192K
#thread_cache_size    = 8
#max_connections      = 100
#table_cache          = 64
# Most important is to give InnoDB 80 % of the system RAM for buffer use:
# https://mariadb.com/kb/en/innodb-system-variables/#innodb_buffer_pool_size
#innodb_buffer_pool_size = 8G
root@javier:~# _
```