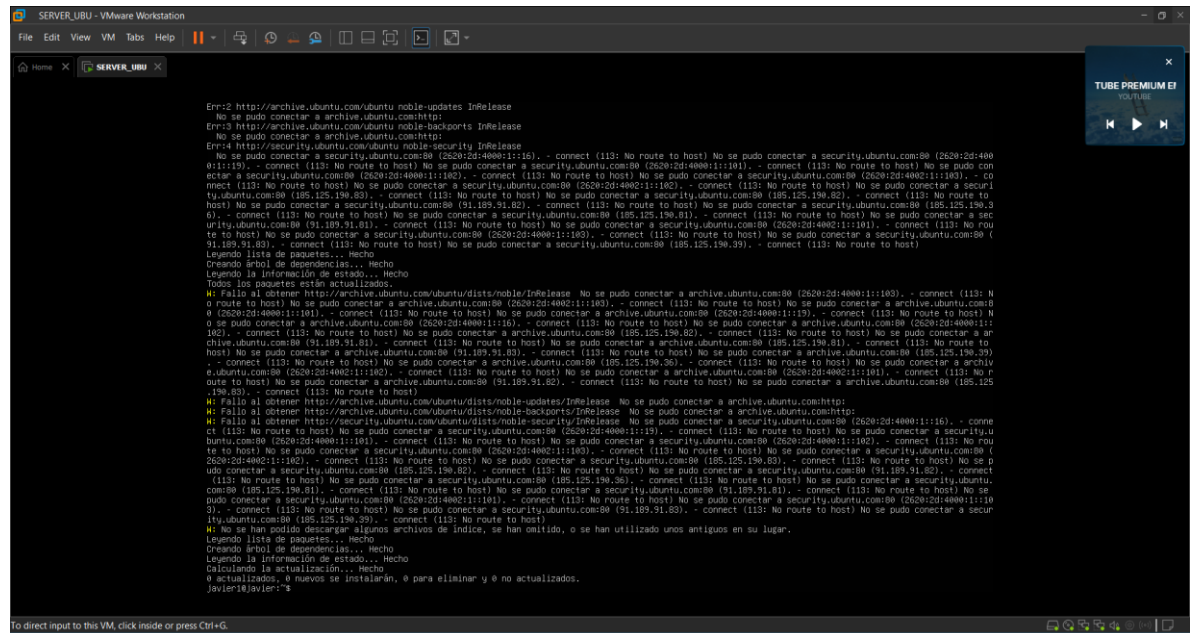


# MANUAL DE INSTALACION Y TALLER

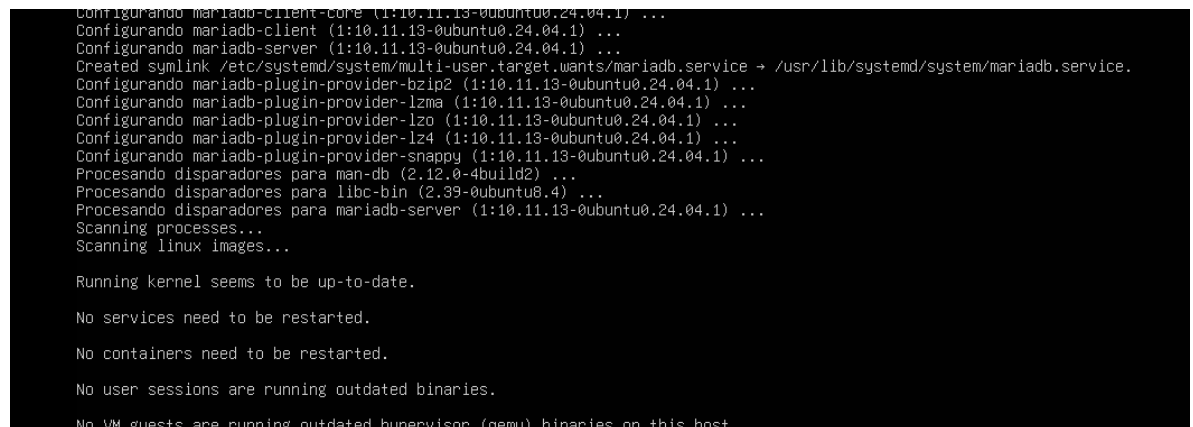
Javier Alexander Gomez Delgado  
T.I 1019606619

- Paso 1: Actualizar el sistema



The screenshot shows a terminal window titled 'SERVER\_UBU - VMware Workstation'. The terminal output displays the process of updating the system. It starts with 'Err:2 http://archive.ubuntu.com/ubuntu noble-updates InRelease' and continues with various error messages about failed connections to archive.ubuntu.com. The process then proceeds to 'Leyendo lista de paquetes... Hecho' (Reading package list... Done), 'Creando árbol de dependencias... Hecho' (Creating dependency tree... Done), and 'Leyendo la información de estado... Hecho' (Reading state information... Done). It then shows the progress of downloading and installing updates, including 'Fallo al obtener http://archive.ubuntu.com/ubuntu/dists/noble/updates/InRelease' and 'Fallo al obtener http://security.ubuntu.com/ubuntu/dists/noble-security/InRelease'. The process concludes with 'Calculando la actualización... Hecho' (Calculating the update... Done) and '0 actualizados, 0 nuevos se instalarán, 0 para eliminar y 0 no actualizados.' (0 updated, 0 new will be installed, 0 to remove and 0 not updated).

- Paso 2: Instalar MariaDB



The screenshot shows a terminal window with the following output:

```
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-bzip2 (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.

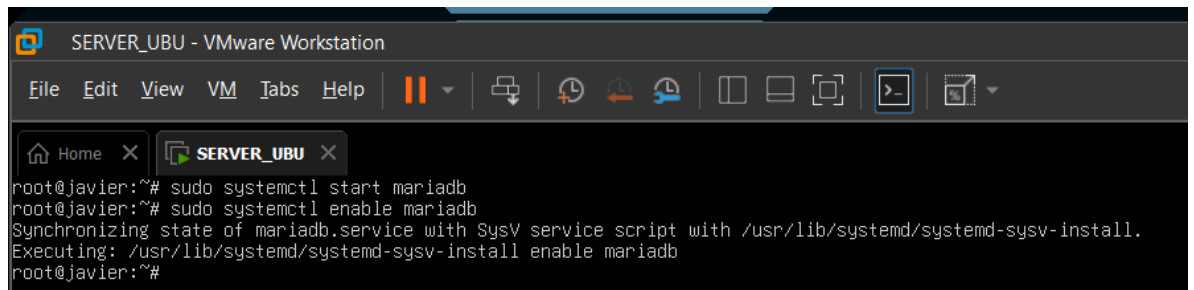
No services need to be restarted.

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



The screenshot shows a VMware Workstation window titled "SERVER\_UBU - VMware Workstation". The interface includes a menu bar (File, Edit, View, VM, Tabs, Help) and a toolbar with various icons. Below the toolbar, there are tabs for "Home" and "SERVER\_UBU". The terminal window displays the following commands and output:

```
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 (0.0~2024.03.31-1ubuntu0.1 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 (24.04.60-1ubuntu7.1 Ubuntu:24.04/noble-updates [amd64])
Conf plymouth (24.04.60-1ubuntu7.1 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 (2:1.02.185-3ubuntu3.2 Ubuntu:24.04/noble-updates [amd64])
Conf liblvm2cmd2.03 (2.03.16-3ubuntu3.2 Ubuntu:24.04/noble-updates [amd64])
Conf dmeventd (2:1.02.185-3ubuntu3.2 Ubuntu:24.04/noble-updates [amd64])
Conf libfwupd2 (1.9.29-0ubuntu1~24.04.1ubuntu1 Ubuntu:24.04/noble-updates [amd64])
Conf fwupd (1.9.29-0ubuntu1~24.04.1ubuntu1 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 libldap-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 libnvmme1t64 (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 (4.8.2-0ubuntu0~24.04.1 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:~# _
```