

# Tasques UD17-MongoDB

Realiza la instalación de todo el stack tecnológico necesario para el desarrollo de tu sistema de base de datos con **MongoDB** en Fedora 35.

Para ello has de instalar y configurar lo siguiente:

1. - **Mongo Community Server**.
2. - **Compass**.
3. - **Robomongo**.

Una vez instalado todo el stack has de crear la base de datos Biblioteca y añadir la siguiente colección de datos:

Debes adjuntar capturas de pantalla de cada una de las instalaciones. Recuerda que tienes **fecha límite de entrega**.

## Instalación Mongo en Fedora-Server

```
sudo: apt-get: command not found
[root@fedora ~]# apt-get install nano
bash: apt-get: command not found
[root@fedora ~]# sudo yum install nano
Fedora 35 - x86_64 - Updates                                32 kB/s | 17 kB    00:00
Fedora 35 - x86_64 - Updates                                434 kB/s | 2.3 MB  00:05
Fedora Modular 35 - x86_64 - Updates                       28 kB/s | 21 kB    00:00
Dependencies resolved.
=====
Package                                Architecture      Version            Repository          Size
=====
Downloading Packages:
nano-5.8-4.fc35.x86_64.rpm              1.0 MB/s | 709 kB    00:00
-----
Total                                  451 kB/s | 709 kB    00:01
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing      : 
  Installing     : nano-5.8-4.fc35.x86_64                1/3
  Running scriptlet: nano-5.8-4.fc35.x86_64                1/3
  Verifying      : nano-5.8-4.fc35.x86_64                1/3
Installed:
  nano-5.8-4.fc35.x86_64

Complete!
[root@fedora ~]# sudo nano /etc/yum.repos.d/mongodb.org-4.4.repo
[root@fedora ~]# sudo yum update
Repositorio de MongoDB para Fedora 31                      59 kB/s | 35 kB    00:00
Last metadata expiration check: 0:00:01 ago on Wed Feb  2 09:35:50 2022.
Dependencies resolved.
=====
Package                                Architecture      Version            Repository          Size
=====
Installing:
kernel                                x86_64            5.15.18-200.fc35   updates            16 M
Upgrading:
audit                                x86_64            3.0.7-1.fc35       updates            251 k
audit-libs                           x86_64            3.0.7-1.fc35       updates            116 k
chrony                                x86_64            4.2-1.fc35         updates            311 k
```

```
=====
Install    3 Packages
Upgrade   51 Packages

Total download size: 99 M
Is this ok [y/N]:
Operation aborted.
[root@fedora ~]# sudo nano /etc/yum.repos.d/mongodb.org-4.4.repo
[root@fedora ~]# sudo yum update
Last metadata expiration check: 0:01:32 ago on Wed Feb  2 09:35:50 2022.
Dependencies resolved.

=====
Package                                         Architecture           Version
=====
Installing:

(36/54): sssd-ipa-2.6.3-1.fc35.x86_64.rpm      2.0 MB/s | 269 kB | 00:00
(37/54): sssd-kcm-2.6.3-1.fc35.x86_64.rpm      1.1 MB/s | 105 kB | 00:00
(38/54): sssd-krb5-2.6.3-1.fc35.x86_64.rpm      691 kB/s | 77 kB | 00:00
(39/54): sssd-krb5-common-2.6.3-1.fc35.x86_64.rpm 791 kB/s | 82 kB | 00:00
(40/54): sssd-ldap-2.6.3-1.fc35.x86_64.rpm      2.0 MB/s | 154 kB | 00:00
(41/54): sssd-nfs-idmap-2.6.3-1.fc35.x86_64.rpm 514 kB/s | 36 kB | 00:00
(42/54): sssd-proxy-2.6.3-1.fc35.x86_64.rpm     848 kB/s | 67 kB | 00:00
(43/54): util-linux-2.37.3-1.fc35.x86_64.rpm    4.3 MB/s | 2.2 MB | 00:00
(44/54): util-linux-core-2.37.3-1.fc35.x86_64.rpm 2.9 MB/s | 433 kB | 00:00
(45/54): util-linux-user-2.37.3-1.fc35.x86_64.rpm 462 kB/s | 30 kB | 00:00
(46/54): vim-common-8.2.4232-1.fc35.x86_64.rpm  4.5 MB/s | 6.8 MB | 00:01
(47/54): vim-data-8.2.4232-1.fc35.noarch.rpm    230 kB/s | 28 kB | 00:00
(48/54): vim-default-editor-8.2.4232-1.fc35.noarch.rpm 99 kB/s | 21 kB | 00:00
(49/54): vim-enhanced-8.2.4232-1.fc35.x86_64.rpm 1.8 MB/s | 1.9 MB | 00:01
(50/54): vim-filessystem-8.2.4232-1.fc35.noarch.rpm 149 kB/s | 22 kB | 00:00
(51/54): vim-minimal-8.2.4232-1.fc35.x86_64.rpm 1.4 MB/s | 710 kB | 00:00
(52/54): wpa_supplicant-2.10-2.fc35.x86_64.rpm 1.0 MB/s | 1.6 MB | 00:01
(53/54): kernel-core-5.15.18-200.fc35.x86_64.rpm 2.1 MB/s | 35 MB | 00:16
[MIRROR] kernel-modules-5.15.18-200.fc35.x86_64.rpm: Curl error (18): Transferred a partial file for http://mirror.karneval.cz/pub/linux/fedora/linux/updates/35/E
verything/x86_64/Packages/k/kernel-modules-5.15.18-200.fc35.x86_64.rpm [transfer closed with 21887935 bytes remaining to read]
(54/54): kernel-modules-5.15.18-200.fc35.x86_64.rpm 69% [=====] 49 kB/s | 65 MB | 10:01 ETA
```

Luego del Update, procedemos a instalar MongoDB

```
Complete!
root@fedora ~]# sudo yum install -y mongodb-org
Last metadata expiration check: 0:23:13 ago on Wed Feb  2 09:47:32 2022.

Running scriptlet: mongodb-org-server-4.4.4-1.el8.x86_64
Created symlink /etc/systemd/system/multi-user.target.wants/mongod.service → /usr/lib/systemd/system/mongod.service.

Running scriptlet: cyrus-sasl-2.1.27-13.fc35.x86_64
Installing      : cyrus-sasl-2.1.27-13.fc35.x86_64
Running scriptlet: cyrus-sasl-2.1.27-13.fc35.x86_64
Running scriptlet: mongodb-database-tools-100.5.2-1.x86_64
Installing      : mongodb-database-tools-100.5.2-1.x86_64 [=====]

Installed:
cyrus-sasl-2.1.27-13.fc35.x86_64      fontconfig-2.13.94-3.fc35.x86_64      langpacks-core-font-en-3.0-15.fc35.noarch
libX11-1.7.3-1-1.fc35.x86_64         libX11-common-1.7.3-1-1.fc35.noarch    libXau-1.0.9-7.fc35.x86_64
libXft-2.3.3-7.fc35.x86_64           libXrender-0.9.10-15.fc35.x86_64      libxcb-1.13.1-8.fc35.x86_64
mongodb-database-tools-100.5.2-1.x86_64 mongodb-org-4.4.4-1.el8.x86_64         mongodb-org-database-tools-extra-4.4.4-1.el8.x86_64
mongodb-org-mongos-4.4.4-1.el8.x86_64 mongodb-org-server-4.4.4-1.el8.x86_64  mongodb-org-shell-4.4.4-1.el8.x86_64
mongodb-org-tools-4.4.4-1.el8.x86_64  python2.7-2.7.18-15.fc35.x86_64      tix-1:8.4.3-32.fc35.x86_64
tk-1:8.6.10-7.fc35.x86_64            xml-common-0.6.3-57.fc35.noarch

Skipped:
mongodb-org-4.4.12-1.el8.x86_64      mongodb-org-database-tools-extra-4.4.12-1.el8.x86_64      mongodb-org-tools-4.4.12-1.el8.x86_64

Complete!
[root@fedora ~]#
```

Iniciamos el servicio en Fedora con la comanda:

```

Skipped:
mongodb-org-4.4.12-1.el8.x86_64      mongodb-org-
Complete!
[root@fedora ~]# sudo systemctl start mongod

```

- Verificamos el estado del servicio con la comanda:

```

[root@fedora ~]# systemctl status mongod
● mongod.service - MongoDB Database Server
   Loaded: loaded (/usr/lib/systemd/system/mongod.service; enabled; vendor preset: disabled)
   Active: active (running) since Wed 2022-02-02 10:19:00 CET; 1min 6s ago
     Docs: https://docs.mongodb.org/manual
   Process: 43088 ExecStartPre=/usr/bin/mkdir -p /var/run/mongodb (code=exited, status=0/SUCCESS)
   Process: 43090 ExecStartPre=/usr/bin/chown mongod:mongod /var/run/mongodb (code=exited, status=0/SUCCESS)
   Process: 43092 ExecStartPre=/usr/bin/chmod 0755 /var/run/mongodb (code=exited, status=0/SUCCESS)
   Process: 43093 ExecStart=/usr/bin/mongod $OPTIONS (code=exited, status=0/SUCCESS)
  Main PID: 43097 (mongod)
    Memory: 58.4M
       CPU: 2.306s
    CGroup: /system.slice/mongod.service
           └─43097 /usr/bin/mongod -f /etc/mongod.conf

Feb 02 10:18:57 fedora systemd[1]: Starting MongoDB Database Server...
Feb 02 10:18:57 fedora mongod[43093]: about to fork child process, waiting until server is ready for connections.
Feb 02 10:18:57 fedora mongod[43097]: forked process: 43097
Feb 02 10:19:00 fedora mongod[43093]: child process started successfully, parent exiting
Feb 02 10:19:00 fedora systemd[1]: Started MongoDB Database Server.
[root@fedora ~]#

```

- Conectamos el servicio:

```

[root@fedora ~]# mongo
MongoDB shell version v4.4.4
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongod
Implicit session: session { "id" : UUID("61d1a240-7159-4c9d-aa10-b1f8b0b13dff") }
MongoDB server version: 4.4.4
Welcome to the MongoDB shell.
For interactive help, type "help".
For more comprehensive documentation, see
  https://docs.mongodb.com/
Questions? Try the MongoDB Developer Community Forums
  https://community.mongodb.com
---
The server generated these startup warnings when booting:
  2022-02-02T10:19:00.390+01:00: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted
---
  Enable MongoDB's free cloud-based monitoring service, which will then receive and display
  metrics about your deployment (disk utilization, CPU, operation statistics, etc).

  The monitoring data will be available on a MongoDB website with a unique URL accessible to you
  and anyone you share the URL with. MongoDB may use this information to make product
  improvements and to suggest MongoDB products and deployment options to you.

  To enable free monitoring, run the following command: db.enableFreeMonitoring()
  To permanently disable this reminder, run the following command: db.disableFreeMonitoring()
---
>

```

- Procedemos a entrar como admin para editar las contraseñas

```

---
> use admin
switched to db admin
>

```

- Luego de indicar el usuario "remote" y la contraseña, iniciamos la sesión para comprobar que nos reconoce el usuario

```
[root@fedora ~]# mongo -u remote
MongoDB shell version v4.4.4
Enter password:
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("e67a9728-8b12-4925-93d8-cd14cce3c33e") }
MongoDB server version: 4.4.4
---
The server generated these startup warnings when booting:
---
2022-02-02T10:19:00.390+01:00: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted
---
>
```

- Procedemos a forzar el uso de autenticación, activando la seguridad.

```
# network interfaces
net:
  port: 27017
  bindIp: 127.0.0.1 # Enter 0.0.0.0,:: to bind to all IPv4 and IPv6 addresses or, alternatively, use the net.bindIpAll setting.

security:
  authorization: enabled

#operationProfiling:

#replication:
```

- Reiniciamos el servicio luego de guardar los cambios

```
[root@fedora ~]# sudo nano /etc/mongod.conf
[root@fedora ~]# sudo systemctl restart mongod
[root@fedora ~]#
```

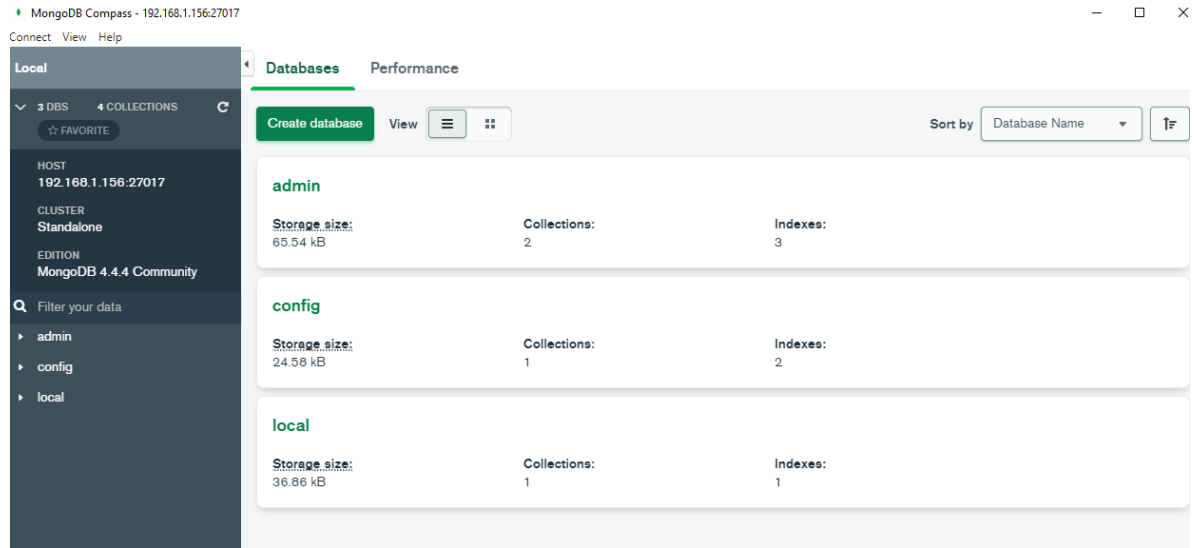
- Activamos el Firewall

```
[root@fedora ~]# sudo firewall-cmd --permanent --add-service=mongodb
success
[root@fedora ~]# sudo firewall-cmd --reload
success
[root@fedora ~]#
```

- Procedemos a configurar el acceso remoto:

```
[root@fedora ~]# mongo --host 192.168.1.156:27017 -u remote
MongoDB shell version v4.4.4
Enter password:
connecting to: mongodb://192.168.1.156:27017/?compressors=disabled&gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("6cbe5f33-e6ee-4cbf-b48f-a15570d2a553") }
MongoDB server version: 4.4.4
>
```

- Instalamos el compass y iniciamos la conexión con nuestro server fedora:



Ejercicio de Prueba, crear database de Libros

