

# CREACIÓN DE CONTENEDOR DE MONGODB

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Obtener la imagen de MongoDB:

```
camiloramirez@camiloramirezPC:~/Documents/Universidad/distri/mongo
> docker pull mongo:latest

latest: Pulling from library/mongo
b71466b94f26: Pull complete
e701e7c9324a: Pull complete
f1102db351d8: Pull complete
d713d16a8043: Pull complete
cb52df844465: Pull complete
578438e6cda5: Pull complete
0a07b2b41243: Pull complete
91469349d2c2: Pull complete
Digest: sha256:95a98776f273721a295b03098578b06bc10281bb56aa828c77e9f60ecc70b150
Status: Downloaded newer image for mongo:latest
docker.io/library/mongo:latest

took 12s
```

Creación del Dockerfile:

```
camiloramirez@camiloramirezPC:~/Documents/Universidad/distri/mongo
> touch Dockerfile
> nano Dockerfile
> cat Dockerfile
FROM mongo:latest

#Scripts de inicialización a la carpeta especial de Mongo
COPY ./init-mongo.js /docker-entrypoint-initdb.d/
```

Script de inicialización de la base mongo:

```
camiloramirez@camiloramirezPC:~/Documents/Universidad/distri/mongo
> touch init-mongo.js
> nano init-mongo.js
> cat init-mongo.js
db = db.getSiblingDB("mibase");
db.createCollection("usuarios");

db.usuarios.insertMany([
  { nombre: "Camilo", rol: "admin" },
  { nombre: "Ana", rol: "user" }
]);
```

Construir la imagen:

```
camiloramirez@camiloramirezPC:~/Documents/Universidad/distri/mongo
> docker build -t mi-mongo .

[+] Building 0.0s (7/7) FINISHED                                docker:default
=> [internal] load build definition from Dockerfile              0.0s
=> => transferring dockerfile: 167B                             0.0s
=> [internal] load metadata for docker.io/library/mongo:latest  0.0s
=> [internal] load .dockerignore                                0.0s
=> => transferring context: 2B                                    0.0s
=> [internal] load build context                                0.0s
=> => transferring context: 209B                                  0.0s
=> CACHED [1/2] FROM docker.io/library/mongo:latest             0.0s
=> [2/2] COPY ./init-mongo.js /docker-entrypoint-initdb.d/     0.0s
=> exporting to image                                           0.0s
=> => exporting layers                                           0.0s
=> => writing image sha256:9b44091fca8358838e2dbff6cca8d65c704f6b56abf57 0.0s
=> => naming to docker.io/library/mi-mongo                      0.0s
```

Crear el contenedor:

```
camiloramirez@camiloramirezPC:~/Documents/Universidad/distri/mongo
> docker run -d --name contenedor-mongo -p 27017:27017 mi-mongo

ca93936ce6328c318a831368539a95e3bfac75ffe28c5b7ba83716c6fd8a52ec
> docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS                               NAMES
ca93936ce632   mi-mongo  "docker-entrypoint.s..." 4 seconds ago  Up 3 seconds  0.0.0.0:27017->27017/tcp, [::]:27017->27017/tcp  contenedor-mongo
```

Prueba utilizando el shell de Mongo dentro del contenedor:

```
Aug 20 22:24
mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000

> docker exec -it contenedor-mongo mongosh

Current Mongosh Log ID: 68a6916288e4cae21089b03c
Connecting to:  mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2.5.6
Using MongoDB:  8.0.12
Using Mongosh:  2.5.6

For mongosh info see: https://www.mongodb.com/docs/mongosh-shell/

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The server generated these startup warnings when booting
2025-08-21T03:06:36.960+00:00: Using the XFS filesystem is strongly recommended with the WiredTiger storage engine. See http://dochub.mongodb.org/core/prodnotes-filesystem
2025-08-21T03:06:37.581+00:00: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted
2025-08-21T03:06:37.581+00:00: For customers running the current memory allocator, we suggest changing the contents of the following sysfsFile
2025-08-21T03:06:37.581+00:00: For customers running the current memory allocator, we suggest changing the contents of the following sysfsFile
2025-08-21T03:06:37.581+00:00: We suggest setting the contents of sysfsFile to 0.
2025-08-21T03:06:37.581+00:00: vm.max_map_count is too low
2025-08-21T03:06:37.581+00:00: We suggest setting swappiness to 0 or 1, as swappiness can cause performance problems.
-----

test> show dbs
admin    48.00 KiB
config  12.00 KiB
local   72.00 KiB
mibase  40.00 KiB
test> use mibase
switched to db mibase
mibase> show collections
usuarios
mibase> db.usuarios.find()
{
  "_id": ObjectId("68a68d3bb6003acf9a89b03d"),
  "nombre": "Camilo",
  "rol": "admin"
},
{
  "_id": ObjectId("68a68d3bb6003acf9a89b03e"),
  "nombre": "Ana",
  "rol": "user"
}
mibase>
```

- exec: ejecutar un comando en un contenedor corriendo
- show dbs: lista las bases de datos
- use mibase: cambia a tu BD (si tu init la creó con ese nombre)
- show collections: muestra las colecciones
- db.usuarios.find(): consultar documentos