

DESAFIO 9 – BACKEND CODERHOUSE

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2022 - MARZO

Creando Servidor y Definiendo Rutas Base de Datos

- PS C:\Users\german> mongod --dbpath "D:\germa\Downloads\desafio9\base"

En una terminal ejecutamos este comando con el fin de arrancar el servidor, en la ruta especificada, y proceder a crear un usuario con privilegios de admin, y realizar correctamente las tareas del desafío.

```
Administrador: Windows PowerShell
PS C:\Users\germa> mongod --dbpath "D:\germa\Downloads\desafio9\base"
2022-03-07T22:00:34.379-0500 I CONTROL [main] Automatically disabling TLS 1.0, to force-enable TLS 1.0 specify --sslDisabledProtocols 'none'
2022-03-07T22:00:34.385-0500 W ASIO [main] No TransportLayer configured during NetworkInterface startup
2022-03-07T22:00:34.386-0500 I CONTROL [initandlisten] MongoDB starting : pid=4692 port=27017 dbpath=D:\germa\Downloads\desafio9\base 64-bit host=DESKTOP-OHFJEQ6
2022-03-07T22:00:34.386-0500 I CONTROL [initandlisten] targetMinOS: Windows 7/Windows Server 2008 R2
2022-03-07T22:00:34.387-0500 I CONTROL [initandlisten] db version v4.2.8
2022-03-07T22:00:34.387-0500 I CONTROL [initandlisten] git version: 43d25964249164d76d5e04dd6cf38f611e21f5f
2022-03-07T22:00:34.387-0500 I CONTROL [initandlisten] allocator: tcmalloc
2022-03-07T22:00:34.387-0500 I CONTROL [initandlisten] modules: none
2022-03-07T22:00:34.387-0500 I CONTROL [initandlisten] build environment:
2022-03-07T22:00:34.387-0500 I CONTROL [initandlisten] distmod: 2012plus
2022-03-07T22:00:34.387-0500 I CONTROL [initandlisten] distarch: x86_64
2022-03-07T22:00:34.387-0500 I CONTROL [initandlisten] target_arch: x86_64
2022-03-07T22:00:34.387-0500 I CONTROL [initandlisten] options: { storage: { dbPath: "D:\germa\Downloads\desafio9\base" } }
2022-03-07T22:00:34.389-0500 I STORAGE [initandlisten] Detected data files in D:\germa\Downloads\desafio9\base created by the 'wiredTiger' storage engine, so setting the active storage engine to 'wiredTiger'.
2022-03-07T22:00:34.389-0500 I STORAGE [initandlisten] wiredtiger_open config: create,cache_size=3045M,cache_overflow=(file_max=0M),session_max=33000,eviction=(threads_min=4,threads_max=4),config_base=false,statistics=(fast),log=(enabled=true,archive=true,path=journal,compressor=snappy),file_manager=(close_idle_time=100000,close_scan_interval=10,close_handle_minimum=250),statistics_log=(wait=0),verbose=[recovery_progress,checkpoint_progress],
2022-03-07T22:00:34.537-0500 I STORAGE [initandlisten] WiredTiger message [1646708434:537627][4692:140718430901584], txn-recover: Recovering log 8 through 9
2022-03-07T22:00:34.594-0500 I STORAGE [initandlisten] WiredTiger message [1646708434:594630][4692:140718430901584], txn-recover: Recovering log 9 through 9
2022-03-07T22:00:34.677-0500 I STORAGE [initandlisten] WiredTiger message [1646708434:676636][4692:140718430901584], txn-recover: Main recovery loop: starting at 8/256 to 9/256
2022-03-07T22:00:34.679-0500 I STORAGE [initandlisten] WiredTiger message [1646708434:678638][4692:140718430901584], txn-recover: Recovering log 8 through 9
2022-03-07T22:00:34.770-0500 I STORAGE [initandlisten] WiredTiger message [1646708434:770047][4692:140718430901584], txn-recover: Recovering log 9 through 9
2022-03-07T22:00:34.837-0500 I STORAGE [initandlisten] WiredTiger message [1646708434:837053][4692:140718430901584], txn-recover: Set global recovery timestamp: (0, 0)
2022-03-07T22:00:35.153-0500 I RECOVERY [initandlisten] WiredTiger recoveryTimestamp. Ts: Timestamp(0, 0)
2022-03-07T22:00:35.161-0500 I STORAGE [initandlisten] Timestamp monitor starting
2022-03-07T22:00:35.220-0500 I CONTROL [initandlisten]
2022-03-07T22:00:35.220-0500 I CONTROL [initandlisten] ** WARNING: Access control is not enabled for the database.
2022-03-07T22:00:35.220-0500 I CONTROL [initandlisten] Read and write access to data and configuration is unrestricted.
2022-03-07T22:00:35.221-0500 I CONTROL [initandlisten]
2022-03-07T22:00:35.221-0500 I CONTROL [initandlisten] ** WARNING: This server is bound to localhost.
2022-03-07T22:00:35.221-0500 I CONTROL [initandlisten] Remote systems will be unable to connect to this server.
2022-03-07T22:00:35.221-0500 I CONTROL [initandlisten] Start the server with --bind_ip <address> to specify which IP
2022-03-07T22:00:35.221-0500 I CONTROL [initandlisten] addresses it should serve responses from, or with --bind_ip_all to
2022-03-07T22:00:35.221-0500 I CONTROL [initandlisten] bind to all interfaces. If this behavior is desired, start the
2022-03-07T22:00:35.221-0500 I CONTROL [initandlisten] server with --bind_ip 127.0.0.1 to disable this warning.
2022-03-07T22:00:35.221-0500 I CONTROL [initandlisten]
2022-03-07T22:00:35.228-0500 I SHARDING [initandlisten] Marking collection local.system.replset as collection version: <unsharded>
2022-03-07T22:00:35.232-0500 I STORAGE [initandlisten] Flow Control is enabled on this deployment.
2022-03-07T22:00:35.232-0500 I SHARDING [initandlisten] Marking collection admin.system.roles as collection version: <unsharded>
2022-03-07T22:00:35.232-0500 I SHARDING [initandlisten] Marking collection admin.system.version as collection version: <unsharded>
2022-03-07T22:00:35.235-0500 I SHARDING [initandlisten] Marking collection local.startup_log as collection version: <unsharded>
2022-03-07T22:00:35.933-0500 W FTDC [initandlisten] Failed to initialize Performance Counters for FTDC: WindowsPdhError: PdhExpandCounterPathW failed with 'El objeto especificado no se encontró en el equipo.' for counter '\\Memory\\Available Bytes'
2022-03-07T22:00:35.933-0500 I FTDC [initandlisten] Initializing full-time diagnostic data capture with directory 'D:\germa\Downloads\desafio9\base\diagnostic.data'
2022-03-07T22:00:35.936-0500 I SHARDING [LogicalSessionCacheRefresh] Marking collection config.system.sessions as collection version: <unsharded>
2022-03-07T22:00:35.936-0500 I SHARDING [LogicalSessionCacheReap] Marking collection config.transactions as collection version: <unsharded>
2022-03-07T22:00:35.936-0500 I NETWORK [listener] Listening on 127.0.0.1
2022-03-07T22:00:35.936-0500 I NETWORK [listener] waiting for connections on port 27017
2022-03-07T22:00:36.001-0500 I SHARDING [ftdc] Marking collection local.oplog.rs as collection version: <unsharded>
```

Creando Usuario admin, Antes de Iniciar Desafio

- PS C:\Users\german> mongo

En una terminal nueva ejecutamos este comando para inicializar mongo y conectarnos al server.

- use admin

Procedemos luego a hacer uso de la collections “admin”

- db.createUser({ user:"admin", pwd: "1234",
roles:["clusterAdmin","readAnyDatabase","readWriteAnyDatabase","userAdminAnyDatabase","dbAdminAnyDatabase"] });

Finalmente ejecutamos este comando para crear usuario admin y sus roles.

```
Administrador: Windows PowerShell
Windows PowerShell
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Prueba la nueva tecnología PowerShell multiplataforma https://aka.ms/pscore6

PS C:\Users\german> mongo
MongoDB shell version v4.2.8
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("b3b9f3e0-f241-4b5f-821c-997aada294b9") }
MongoDB server version: 4.2.8
Server has startup warnings:
2022-03-07T19:52:19.706-0500 I CONTROL [initandlisten]
2022-03-07T19:52:19.706-0500 I CONTROL [initandlisten] ** WARNING: Access control is not enabled for the database.
2022-03-07T19:52:19.706-0500 I CONTROL [initandlisten] **      Read and write access to data and configuration is unrestricted.
2022-03-07T19:52:19.707-0500 I CONTROL [initandlisten]
2022-03-07T19:52:19.707-0500 I CONTROL [initandlisten] ** WARNING: This server is bound to localhost.
2022-03-07T19:52:19.707-0500 I CONTROL [initandlisten] **      Remote systems will be unable to connect to this server.
2022-03-07T19:52:19.707-0500 I CONTROL [initandlisten] **      Start the server with --bind_ip <address> to specify which IP
2022-03-07T19:52:19.707-0500 I CONTROL [initandlisten] **      addresses it should serve responses from, or with --bind_ip_all to
2022-03-07T19:52:19.707-0500 I CONTROL [initandlisten] **      bind to all interfaces. If this behavior is desired, start the
2022-03-07T19:52:19.707-0500 I CONTROL [initandlisten] **      server with --bind_ip 127.0.0.1 to disable this warning.
2022-03-07T19:52:19.708-0500 I CONTROL [initandlisten]
...
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()
...

> use admin
switched to db admin
> db.createUser({ user:"admin", pwd: "1234", roles:["clusterAdmin","readAnyDatabase","readWriteAnyDatabase","userAdminAnyDatabase","dbAdminAnyDatabase"] });
Successfully added user: {
  "user": "admin",
  "roles": [
    "clusterAdmin",
    "readAnyDatabase",
    "readWriteAnyDatabase",
    "userAdminAnyDatabase",
    "dbAdminAnyDatabase"
  ]
}
```

Iniciando Terminal en Modo “—auth”

- PS C:\Users\german> mongod --dbpath "D:\germa\Downloads\desafio9\base" --auth
- En una terminal ejecutamos este comando para iniciar mongo en modo autenticación.

```
Administrador: Windows PowerShell
PS C:\Users\germa> mongod --dbpath "D:\germa\Downloads\desafio9\base" --auth
2022-03-07T21:22:26.188-0500 I CONTROL [main] Automatically disabling TLS 1.0, to force-enable TLS 1.0 specify --sslDisabledProtocols 'none'
2022-03-07T21:22:26.194-0500 W ASIO [main] No TransportLayer configured during NetworkInterface startup
2022-03-07T21:22:26.195-0500 I CONTROL [initandlisten] MongoDB starting : pid=15716 port=27017 dbpath=D:\germa\Downloads\desafio9\base 64-bit host=DESKTOP-OHFJEQ6
2022-03-07T21:22:26.195-0500 I CONTROL [initandlisten] targetMinOS: Windows 7/Windows Server 2008 R2
2022-03-07T21:22:26.195-0500 I CONTROL [initandlisten] db version v4.2.8
2022-03-07T21:22:26.195-0500 I CONTROL [initandlisten] git version: 43d25964249164d76d5e04dd6cf38f611e21f5f
2022-03-07T21:22:26.195-0500 I CONTROL [initandlisten] allocator: tcmalloc
2022-03-07T21:22:26.195-0500 I CONTROL [initandlisten] modules: none
2022-03-07T21:22:26.196-0500 I CONTROL [initandlisten] build environment:
2022-03-07T21:22:26.196-0500 I CONTROL [initandlisten] distmod: 2012plus
2022-03-07T21:22:26.196-0500 I CONTROL [initandlisten] distarch: x86_64
2022-03-07T21:22:26.196-0500 I CONTROL [initandlisten] target_arch: x86_64
2022-03-07T21:22:26.196-0500 I CONTROL [initandlisten] options: { security: { authorization: "enabled" }, storage: { dbPath: "D:\germa\Downloads\desafio9\base" } }
2022-03-07T21:22:26.198-0500 I STORAGE [initandlisten] Detected data files in D:\germa\Downloads\desafio9\base created by the 'wiredTiger' storage engine, so setting the active storage engine to 'wiredTiger'.
2022-03-07T21:22:26.198-0500 I STORAGE [initandlisten] WiredTiger message [1646706146:504205][15716:140718430901584], txn-recover: Main recovery loop: starting at 6/5760 to 7/256
compressors=snappy, file_manager=close_idle_time=100000, close_scan_interval=10, close_handle_minimum=250, statistics_log=(wait=0), verbose=[recovery_progress,checkpoint_progress],
2022-03-07T21:22:26.313-0500 I STORAGE [initandlisten] WiredTiger message [1646706146:312804][15716:140718430901584], txn-recover: Recovering log 6 through 7
2022-03-07T21:22:26.414-0500 I STORAGE [initandlisten] WiredTiger message [1646706146:413825][15716:140718430901584], txn-recover: Recovering log 7 through 7
2022-03-07T21:22:26.565-0500 I STORAGE [initandlisten] WiredTiger message [1646706146:504205][15716:140718430901584], txn-recover: Main recovery loop: starting at 6/5760 to 7/256
2022-03-07T21:22:26.740-0500 I STORAGE [initandlisten] WiredTiger message [1646706146:739841][15716:140718430901584], txn-recover: Recovering log 6 through 7
2022-03-07T21:22:26.871-0500 I STORAGE [initandlisten] WiredTiger message [1646706146:871194][15716:140718430901584], txn-recover: Recovering log 7 through 7
2022-03-07T21:22:26.968-0500 I STORAGE [initandlisten] WiredTiger message [1646706146:967205][15716:140718430901584], txn-recover: Set global recovery timestamp: (0, 0)
2022-03-07T21:22:27.265-0500 I RECOVERY [initandlisten] WiredTiger recoveryTimestamp. Ts: Timestamp(0, 0)
2022-03-07T21:22:27.275-0500 I STORAGE [initandlisten] Timestamp monitor starting
2022-03-07T21:22:27.338-0500 I CONTROL [initandlisten]
2022-03-07T21:22:27.338-0500 I CONTROL [initandlisten] ** WARNING: This server is bound to localhost.
2022-03-07T21:22:27.338-0500 I CONTROL [initandlisten] ** Remote systems will be unable to connect to this server.
2022-03-07T21:22:27.338-0500 I CONTROL [initandlisten] ** Start the server with --bind_ip <address> to specify which IP
2022-03-07T21:22:27.341-0500 I CONTROL [initandlisten] ** addresses it should serve responses from, or with --bind_ip.all to
2022-03-07T21:22:27.343-0500 I CONTROL [initandlisten] ** bind to all interfaces. If this behavior is desired, start the
2022-03-07T21:22:27.343-0500 I CONTROL [initandlisten] ** server with --bind_ip 127.0.0.1 to disable this warning.
2022-03-07T21:22:27.343-0500 I CONTROL [initandlisten]
2022-03-07T21:22:27.360-0500 I SHARDING [initandlisten] Marking collection local.system.replset as collection version: <unsharded>
2022-03-07T21:22:27.365-0500 I STORAGE [initandlisten] Flow Control is enabled on this deployment.
2022-03-07T21:22:27.365-0500 I SHARDING [initandlisten] Marking collection admin.system.roles as collection version: <unsharded>
2022-03-07T21:22:27.366-0500 I SHARDING [initandlisten] Marking collection admin.system.version as collection version: <unsharded>
2022-03-07T21:22:27.370-0500 I SHARDING [initandlisten] Marking collection local.startup_log as collection version: <unsharded>
2022-03-07T21:22:28.036-0500 W FTDC [initandlisten] Failed to initialize Performance Counters for FTDC: WindowsPdhError: PdhExpandCounterPathW failed with 'El objeto especificado no se encontró en el equipo.' for counter '\Memory\Available Bytes'
2022-03-07T21:22:28.037-0500 I FTDC [initandlisten] Initializing full-time diagnostic data capture with directory 'D:\germa\Downloads\desafio9\base\diagnostic.data'
2022-03-07T21:22:28.041-0500 I SHARDING [LogicalSessionCacheRefresh] Marking collection config.system.sessions as collection version: <unsharded>
2022-03-07T21:22:28.041-0500 I NETWORK [listener] listening on 127.0.0.1
2022-03-07T21:22:28.041-0500 I SHARDING [LogicalSessionCacheReap] Marking collection config.transactions as collection version: <unsharded>
2022-03-07T21:22:28.041-0500 I NETWORK [listener] waiting for connections on port 27017
2022-03-07T21:22:29.002-0500 I SHARDING [ftdc] Marking collection local.oplog.rs as collection version: <unsharded>
2022-03-07T21:23:44.594-0500 I NETWORK [listener] connection accepted from 127.0.0.1:8730 #1 (1 connection now open)
2022-03-07T21:23:44.604-0500 I SHARDING [conn1] Marking collection admin.system.users as collection version: <unsharded>
2022-03-07T21:23:44.607-0500 I NETWORK [conn1] received client metadata from 127.0.0.1:8730 conn1: { application: { name: "MongoDB Shell" }, driver: { name: "MongoDB Internal Client", version: "4.2.8" }, os: { type: "Windows", name: "Microsoft Windows 10", architecture
: "x86_64", version: "10.0 (build 19044)" } }
2022-03-07T21:23:44.646-0500 I ACCESS [conn1] Successfully authenticated as principal admin on admin from client 127.0.0.1:8730
2022-03-07T21:24:54.807-0500 I NETWORK [conn1] end connection 127.0.0.1:8730 (0 connections now open)
2022-03-07T21:25:04.242-0500 I NETWORK [listener] connection accepted from 127.0.0.1:8881 #2 (1 connection now open)
2022-03-07T21:25:04.247-0500 I NETWORK [conn2] received client metadata from 127.0.0.1:8881 conn2: { application: { name: "MongoDB Shell" }, driver: { name: "MongoDB Internal Client", version: "4.2.8" }, os: { type: "Windows", name: "Microsoft Windows 10", architecture
: "x86_64", version: "10.0 (build 19044)" } }
2022-03-07T21:25:04.248-0500 I ACCESS [conn2] Supported SASL mechanisms requested for unknown user 'pepe@admin'
2022-03-07T21:25:04.249-0500 I ACCESS [conn2] SASL SCRAM-SHA-1 authentication failed for pepe on admin from client 127.0.0.1:8881 ; UserNotFound: Could not find user "pepe" for db "admin"
2022-03-07T21:25:04.256-0500 I NETWORK [conn2] end connection 127.0.0.1:8881 (0 connections now open)
2022-03-07T21:25:13.493-0500 I NETWORK [listener] connection accepted from 127.0.0.1:8886 #3 (1 connection now open)
2022-03-07T21:25:13.498-0500 I NETWORK [conn3] received client metadata from 127.0.0.1:8886 conn3: { application: { name: "MongoDB Shell" }, driver: { name: "MongoDB Internal Client", version: "4.2.8" }, os: { type: "Windows", name: "Microsoft Windows 10", architecture
: "x86_64", version: "10.0 (build 19044)" } }
2022-03-07T21:25:13.498-0500 I ACCESS [conn3] Supported SASL mechanisms requested for unknown user 'pepe@admin'
2022-03-07T21:25:13.500-0500 I ACCESS [conn3] SASL SCRAM-SHA-1 authentication failed for pepe on admin from client 127.0.0.1:8886 ; UserNotFound: Could not find user "pepe" for db "admin"
2022-03-07T21:25:13.500-0500 I NETWORK [conn3] end connection 127.0.0.1:8886 (0 connections now open)
2022-03-07T21:25:50.440-0500 I NETWORK [listener] connection accepted from 127.0.0.1:8891 #4 (1 connection now open)
2022-03-07T21:25:50.442-0500 I NETWORK [conn4] received client metadata from 127.0.0.1:8891 conn4: { application: { name: "MongoDB Shell" }, driver: { name: "MongoDB Internal Client", version: "4.2.8" }, os: { type: "Windows", name: "Microsoft Windows 10", architecture
: "x86_64", version: "10.0 (build 19044)" } }
2022-03-07T21:25:50.459-0500 I ACCESS [conn4] Successfully authenticated as principal admin on admin from client 127.0.0.1:8891
2022-03-07T21:27:35.928-0500 I NETWORK [conn4] end connection 127.0.0.1:8891 (0 connections now open)
2022-03-07T21:27:42.816-0500 I NETWORK [listener] connection accepted from 127.0.0.1:9062 #5 (1 connection now open)
2022-03-07T21:27:42.821-0500 I NETWORK [conn5] received client metadata from 127.0.0.1:9062 conn5: { application: { name: "MongoDB Shell" }, driver: { name: "MongoDB Internal Client", version: "4.2.8" }, os: { type: "Windows", name: "Microsoft Windows 10", architecture
: "x86_64", version: "10.0 (build 19044)" } }
2022-03-07T21:27:42.832-0500 I ACCESS [conn5] Successfully authenticated as principal pepe on admin from client 127.0.0.1:9062
2022-03-07T21:27:42.849-0500 I ACCESS [conn5] Unauthorized: not authorized on admin to execute command { getLog: "startupWarnings", lsid: { id: UUID("c320faf9-8026-4ee2-942f-625824276523") }, $db: "admin" }
2022-03-07T21:27:42.852-0500 I ACCESS [conn5] Unauthorized: not authorized on admin to execute command { getFreeMonitoringStatus: 1.0, lsid: { id: UUID("c320faf9-8026-4ee2-942f-625824276523") }, $db: "admin" }
2022-03-07T21:27:42.856-0500 I ACCESS [conn5] Unauthorized: not authorized on admin to execute command { getCmdLineOpts: 1.0, lsid: { id: UUID("c320faf9-8026-4ee2-942f-625824276523") }, $db: "admin" }
```

Ingresando con User ADMIN

- PS C:\Users\germa> mongo -u admin
Ingresamos el comando para hacer Login, posteriormente nos solicitara el Password para continuar “asd456”.

```
Administrador: Windows PowerShell
PS C:\Users\germa> mongo -u admin
MongoDB shell version v4.2.8
Enter password:
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("8a911aac-5881-4e5f-af23-7f7b38073ec2") }
MongoDB server version: 4.2.8
Server has startup warnings:
2022-03-07T21:22:27.338-0500 I CONTROL [initandlisten]
2022-03-07T21:22:27.338-0500 I CONTROL [initandlisten] ** WARNING: This server is bound to localhost.
2022-03-07T21:22:27.340-0500 I CONTROL [initandlisten] ** Remote systems will be unable to connect to this server.
2022-03-07T21:22:27.340-0500 I CONTROL [initandlisten] ** Start the server with --bind_ip <address> to specify which IP
2022-03-07T21:22:27.340-0500 I CONTROL [initandlisten] ** addresses it should serve responses from, or with --bind_ip_all to
2022-03-07T21:22:27.341-0500 I CONTROL [initandlisten] ** bind to all interfaces. If this behavior is desired, start the
2022-03-07T21:22:27.343-0500 I CONTROL [initandlisten] ** server with --bind_ip 127.0.0.1 to disable this warning.
2022-03-07T21:22:27.343-0500 I CONTROL [initandlisten]
2022-03-07T21:22:27.343-0500 I CONTROL [initandlisten]
...
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()
...
>
```

Creando Database y Colecciones.

- **show dbs**

Para mostrar las bases de datos / colecciones disponibles

- **use ecommerce**

Ejecutamos comando para hacer uso de ecommerce, únicamente se mostrara hasta que esta tenga al menos una colección.

- **db.createCollection('mensajes')**

- **db.createCollection('productos')**

Finalmente ejecutamos estos comando para crear las colecciones a las que hace referencia.



```
Administrador: Windows PowerShell
> show dbs
admin 0.000GB
config 0.000GB
local 0.000GB
> use admin
switched to db admin
> use ecommerce
switched to db ecommerce
> db.createCollection('mensajes')
{ "ok" : 1 }
> db.createCollection('productos')
{ "ok" : 1 }
>
```

Mostrando Colecciones Dentro de Ecommerce

- **show collections**

Para mostrar las colecciones disponibles en la db ecommerce



```
Administrador: Windows PowerShell
> show dbs
admin      0.000GB
config     0.000GB
ecommerce  0.000GB
local      0.000GB
test       0.000GB
> use ecommerce
switched to db ecommerce
> show collections
mensajes
productos
>
```

Insertando Documentos dentro de Mensajes

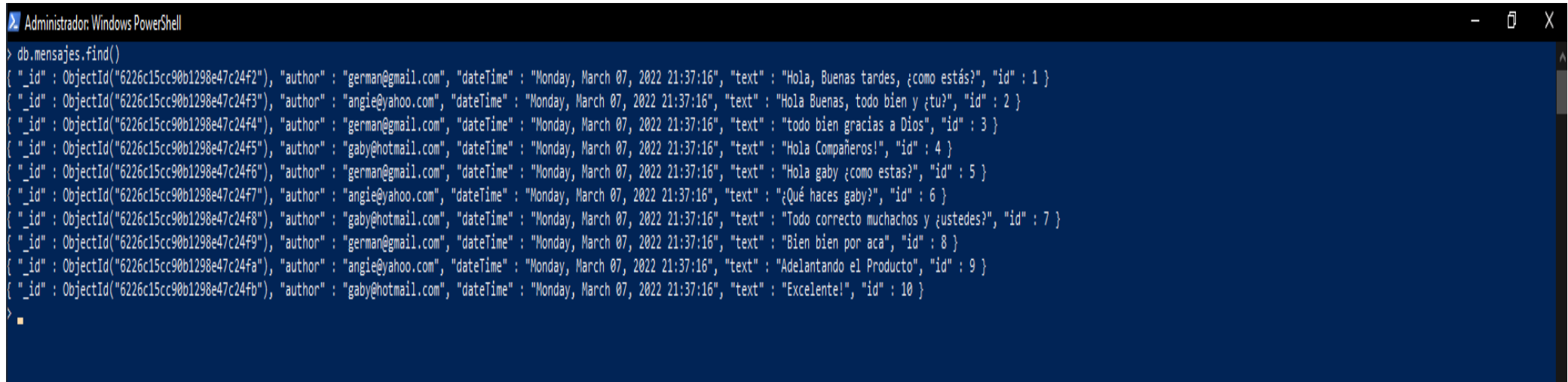
- `>db.mensajes.insertMany([author: 'german@gmail.com', dateTime: new.....`
Para insertar muchos documentos dentro de la colección mensajes tal como se ve en la imagen.

```
Administrador: Windows PowerShell
> use ecommerce
switched to db ecommerce
> db.mensajes.insertMany([
...   { author: 'german@gmail.com', dateTime: new Date().toLocaleString(), text: 'Hola, Buenas tardes, ¿como estás?', id: 1},
...   { author: 'angie@yahoo.com', dateTime: new Date().toLocaleString(), text: 'Hola Buenas, todo bien y ¿tu?', id: 2},
...   { author: 'german@gmail.com', dateTime: new Date().toLocaleString(), text: 'todo bien gracias a Dios', id: 3},
...   { author: 'gaby@hotmail.com', dateTime: new Date().toLocaleString(), text: 'Hola Compañeros!', id: 4},
...   { author: 'german@gmail.com', dateTime: new Date().toLocaleString(), text: 'Hola gaby ¿como estas?', id: 5},
...   { author: 'angie@yahoo.com', dateTime: new Date().toLocaleString(), text: '¿Qué haces gaby?', id: 6 },
...   { author: 'gaby@hotmail.com', dateTime: new Date().toLocaleString(), text: 'Todo correcto muchachos y ¿ustedes?', id: 7},
...   { author: 'german@gmail.com', dateTime: new Date().toLocaleString(), text: 'Bien bien por aca', id: 8 },
...   { author: 'angie@yahoo.com', dateTime: new Date().toLocaleString(), text: 'Adelantando el Producto', id: 9},
...   { author: 'gaby@hotmail.com', dateTime: new Date().toLocaleString(), text: 'Excelente!', id: 10}
... ])
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("6226c15cc90b1298e47c24f2"),
    ObjectId("6226c15cc90b1298e47c24f3"),
    ObjectId("6226c15cc90b1298e47c24f4"),
    ObjectId("6226c15cc90b1298e47c24f5"),
    ObjectId("6226c15cc90b1298e47c24f6"),
    ObjectId("6226c15cc90b1298e47c24f7"),
    ObjectId("6226c15cc90b1298e47c24f8"),
    ObjectId("6226c15cc90b1298e47c24f9"),
    ObjectId("6226c15cc90b1298e47c24fa"),
    ObjectId("6226c15cc90b1298e47c24fb")
  ]
}
```


Listando los Documentos que Contiene Mensajes

- > db.mensajes.find()

Para mostrar/listar los documentos dentro de mensajes tal como se ve en la imagen.



```
Administrador: Windows PowerShell

> db.mensajes.find()
{ "_id" : ObjectId("6226c15cc90b1298e47c24f2"), "author" : "german@gmail.com", "dateTime" : "Monday, March 07, 2022 21:37:16", "text" : "Hola, Buenas tardes, ¿como estás?", "id" : 1 }
{ "_id" : ObjectId("6226c15cc90b1298e47c24f3"), "author" : "angie@yahoo.com", "dateTime" : "Monday, March 07, 2022 21:37:16", "text" : "Hola Buenas, todo bien y ¿tu?", "id" : 2 }
{ "_id" : ObjectId("6226c15cc90b1298e47c24f4"), "author" : "german@gmail.com", "dateTime" : "Monday, March 07, 2022 21:37:16", "text" : "todo bien gracias a Dios", "id" : 3 }
{ "_id" : ObjectId("6226c15cc90b1298e47c24f5"), "author" : "gaby@hotmail.com", "dateTime" : "Monday, March 07, 2022 21:37:16", "text" : "Hola Compañeros!", "id" : 4 }
{ "_id" : ObjectId("6226c15cc90b1298e47c24f6"), "author" : "german@gmail.com", "dateTime" : "Monday, March 07, 2022 21:37:16", "text" : "Hola gaby ¿como estas?", "id" : 5 }
{ "_id" : ObjectId("6226c15cc90b1298e47c24f7"), "author" : "angie@yahoo.com", "dateTime" : "Monday, March 07, 2022 21:37:16", "text" : "¿Qué haces gaby?", "id" : 6 }
{ "_id" : ObjectId("6226c15cc90b1298e47c24f8"), "author" : "gaby@hotmail.com", "dateTime" : "Monday, March 07, 2022 21:37:16", "text" : "Todo correcto muchachos y ¿ustedes?", "id" : 7 }
{ "_id" : ObjectId("6226c15cc90b1298e47c24f9"), "author" : "german@gmail.com", "dateTime" : "Monday, March 07, 2022 21:37:16", "text" : "Bien bien por aca", "id" : 8 }
{ "_id" : ObjectId("6226c15cc90b1298e47c24fa"), "author" : "angie@yahoo.com", "dateTime" : "Monday, March 07, 2022 21:37:16", "text" : "Adelantando el Producto", "id" : 9 }
{ "_id" : ObjectId("6226c15cc90b1298e47c24fb"), "author" : "gaby@hotmail.com", "dateTime" : "Monday, March 07, 2022 21:37:16", "text" : "Excelente!", "id" : 10 }
>
```

Insertando Documentos dentro de Productos

- `>db.productos.insertMany([{'author: 'german@gmail.com', dateTime: new.....`
Para insertar muchos documentos dentro de la colección productos tal como se ve en la imagen.

```
Administrador: Windows PowerShell
> use ecommerce
switched to db ecommerce
> db.productos.insertMany([
...   { title: 'Domine JavaScript 4ª Edición', price: 120, thumbnail: 'https://pictures.abebooks.com/inventory/md30606018483.jpg', id: 1 },
...   { title: 'MERN: Guía Práctica Para Aplicaciones WEB', price: 580, thumbnail: 'https://static.pegal.es/imagenes/marcadas/9788418/978841855105.gif', id: 2 },
...   { title: 'Hábitos Atómicos', price: 900, thumbnail: 'https://images-na.ssl-images-amazon.com/images/I/71mssSA7QgL.jpg', id: 3 },
...   { title: 'Programación orientada a objetos con C++', price: 1280, thumbnail: 'https://edicionesdelau.com/wp-content/uploads/2019/08/9789587920154.png', id: 4 },
...   { title: 'Programación orientada a objetos en JAVA', price: 1700, thumbnail: 'https://edicionesdelau.com/wp-content/uploads/2019/10/Programacion-orientada-Java-DIG.jpg', id: 5 },
...   { title: 'Introducción a la programación con Python', price: 2300, thumbnail: 'https://edicionesdelau.com/wp-content/uploads/2020/10/Introd_Programac_PYTHON-scaled.jpg', id: 6 },
...   { title: '115 ejercicios resueltos de programación C++', price: 2860, thumbnail: 'https://edicionesdelau.com/wp-content/uploads/2021/09/115-ejercicios-resueltos-de-programacion.jpg', id: 7 },
...   { title: 'Estructuras de datos: fundamentación práctica', price: 3350, thumbnail: 'https://panamericana.vteximg.com.br/arquivos/ids/396329-1600-1600/estructuras-de-datos-fundamentacion-practica-9789587922707.jpg', id: 8 },
...   { title: 'Aplicaciones gráficas con Python 3', price: 4320, thumbnail: 'https://panamericana.vteximg.com.br/arquivos/ids/305291-1080-1080/aplicaciones-graficas-con-python-3-9789587629026.jpg', id: 9 },
...   { title: 'Hacking ético con herramientas Python', price: 4990, thumbnail: 'https://edicionesdelau.com/wp-content/uploads/2019/01/9789587629033.png', id: 10 }
... ])
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("6226c17dc90b1298e47c24fc"),
    ObjectId("6226c17dc90b1298e47c24fd"),
    ObjectId("6226c17dc90b1298e47c24fe"),
    ObjectId("6226c17dc90b1298e47c24ff"),
    ObjectId("6226c17dc90b1298e47c2500"),
    ObjectId("6226c17dc90b1298e47c2501"),
    ObjectId("6226c17dc90b1298e47c2502"),
    ObjectId("6226c17dc90b1298e47c2503"),
    ObjectId("6226c17dc90b1298e47c2504"),
    ObjectId("6226c17dc90b1298e47c2505")
  ]
}
```

Listando los Documentos que Contiene Productos

- `>db.productos.find()`

Para mostrar/listar los documentos dentro de productos tal como se ve en la imagen.

A screenshot of a Windows PowerShell window titled 'Administrador: Windows PowerShell'. The window has a dark blue background with white text. The user has entered the command 'use ecommerce', which resulted in 'switched to db ecommerce'. Then, they entered 'db.productos.find()', which returned a list of 10 JSON documents. Each document contains fields for '_id', 'title', 'price', 'thumbnail', and 'id'. The documents represent various programming books and guides.

```
Administrador: Windows PowerShell
> use ecommerce
switched to db ecommerce
> db.productos.find()
{ "_id" : ObjectId("6226c17dc90b1298e47c24fc"), "title" : "Domine JavaScript 4ª Edición", "price" : 120, "thumbnail" : "https://pictures.abebooks.com/inventory/md/md30606018483.jpg", "id" : 1 }
{ "_id" : ObjectId("6226c17dc90b1298e47c24fd"), "title" : "MERN: Guía Practica Para Aplicaciones WEB", "price" : 580, "thumbnail" : "https://static.egales.com/imagenes/marcadas/9788418/978841855105.gif", "id" : 2 }
{ "_id" : ObjectId("6226c17dc90b1298e47c24fe"), "title" : "Habitos Atomicos", "price" : 900, "thumbnail" : "https://images-na.ssl-images-amazon.com/images/I/71mssSA7QgL.jpg", "id" : 3 }
{ "_id" : ObjectId("6226c17dc90b1298e47c24ff"), "title" : "Programación orientada a objetos con C++", "price" : 1280, "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2019/08/9789587920154.png", "id" : 4 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2500"), "title" : "Programación orientada a objetos en JAVA", "price" : 1700, "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2019/10/Programacion-orientada-Java_DIG.jpg", "id" : 5 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2501"), "title" : "Introducción a la programación con Python", "price" : 2300, "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2020/10/Introd_Programac_PYTHON-scaled.jpg", "id" : 6 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2502"), "title" : "115 ejercicios resueltos de programación C++", "price" : 2860, "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2021/09/115-ejercicios-resueltos-de-programacion.jpg", "id" : 7 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2503"), "title" : "Estructuras de datos: fundamentación práctica", "price" : 3350, "thumbnail" : "https://panamericana.vteximg.com.br/arquivos/ids/396329-1600-1600/estructuras-de-datos-fundamentacion-practica-9789587922707.jpg", "id" : 8 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2504"), "title" : "Aplicaciones gráficas con Python 3", "price" : 4320, "thumbnail" : "https://panamericana.vteximg.com.br/arquivos/ids/305291-1080-1080/aplicaciones-graficas-con-python-3-9789587629026.jpg", "id" : 9 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2505"), "title" : "Hacking ético con herramientas Python", "price" : 4990, "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2019/01/9789587629033.png", "id" : 10 }
>
```

Contando los Documentos de las Colecciones

- `>db.mensajes.estimatedDocumentCount()`
- `>db.productos.estimatedDocumentCount()`

Ejecutamos estos comandos para que nos diga cuantos documentos existe en cada colección según los datos insertados.

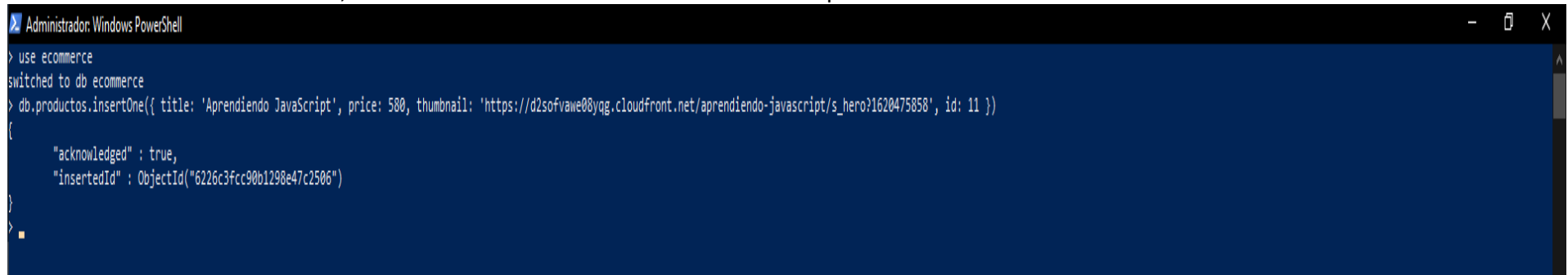


```
Administrador: Windows PowerShell
> db.mensajes.estimatedDocumentCount()
10
> db.productos.estimatedDocumentCount()
10
>
```

Insertando un Nuevo Documento en Productos

- `>db.productos.insertOne({ title: 'Germán Programa', price: 580, thumbnail: 'https://germanprograma', id: 12 })`

Insertamos con este comando, un documento nuevo dentro de la colección productos.



```
Administrador Windows PowerShell
> use ecommerce
switched to db ecommerce
> db.productos.insertOne({ title: 'Aprendiendo JavaScript', price: 580, thumbnail: 'https://d2sofvawe08yqg.cloudfront.net/aprendiendo-javascript/s_hero?1620475858', id: 11 })
{
  "acknowledged" : true,
  "insertedId" : ObjectId("6226c3fcc90b1298e47c2506")
}
```

Actualizando Documento dentro de Productos

- `>db.productos.updateOne({title : 'Aprendiendo JavaScript'}, {$set : {price:540} })`

En el documento insertado anteriormente, se actualiza el precio del mismo.



```
Administrador: Windows PowerShell
> db.productos.updateOne({title : 'Aprendiendo JavaScript'}, {$set : {price:540} })
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
```

Metodo find <= 1000

- >db.productos.find({price: {\$lt: 1000}})
- >db.productos.find({price: {\$lt: 1000}}).pretty()

Me muestra en consola listado los productos que tiene un precio menor a 1000.

```
Administrador: Windows PowerShell
> use ecommerce
switched to db ecommerce
> db.productos.find({price: {$lt: 1000}})
{ "_id" : ObjectId("6226c17dc90b1298e47c24fc"), "title" : "Domine JavaScript 4ª Edición", "price" : 120, "thumbnail" : "https://pictures.abebooks.com/inventory/md/md30606018483.jpg", "id" : 1 }
{ "_id" : ObjectId("6226c17dc90b1298e47c24fd"), "title" : "MERN: Guia Practica Para Aplicaciones WEB", "price" : 580, "thumbnail" : "https://static.cegal.es/imagenes/marcadas/9788418/978841855105.gif", "id" : 2 }
{ "_id" : ObjectId("6226c17dc90b1298e47c24fe"), "title" : "Habitos Atomicos", "price" : 900, "thumbnail" : "https://images-na.ssl-images-amazon.com/images/I/71mssA7QgL.jpg", "id" : 3 }
{ "_id" : ObjectId("6226c3fcc90b1298e47c2506"), "title" : "Aprendiendo JavaScript", "price" : 540, "thumbnail" : "https://d2sofvawe08yqg.cloudfront.net/aprendiendo-javascript/s_hero?1620475858", "id" : 11 }
> db.productos.find({price: {$lt: 1000}}).pretty()
{
  "_id" : ObjectId("6226c17dc90b1298e47c24fc"),
  "title" : "Domine JavaScript 4ª Edición",
  "price" : 120,
  "thumbnail" : "https://pictures.abebooks.com/inventory/md/md30606018483.jpg",
  "id" : 1
}
{
  "_id" : ObjectId("6226c17dc90b1298e47c24fd"),
  "title" : "MERN: Guia Practica Para Aplicaciones WEB",
  "price" : 580,
  "thumbnail" : "https://static.cegal.es/imagenes/marcadas/9788418/978841855105.gif",
  "id" : 2
}
{
  "_id" : ObjectId("6226c17dc90b1298e47c24fe"),
  "title" : "Habitos Atomicos",
  "price" : 900,
  "thumbnail" : "https://images-na.ssl-images-amazon.com/images/I/71mssA7QgL.jpg",
  "id" : 3
}
{
  "_id" : ObjectId("6226c3fcc90b1298e47c2506"),
  "title" : "Aprendiendo JavaScript",
  "price" : 540,
  "thumbnail" : "https://d2sofvawe08yqg.cloudfront.net/aprendiendo-javascript/s_hero?1620475858",
  "id" : 11
}
```

Metodo find >= 1000 & <=3000

- >db.productos.find({price: {\$gte: 1000, \$lte: 3000}})
- >db.productos.find({price: {\$gte: 1000, \$lte: 3000}}).pretty()

Me muestra en consola listado los productos que tiene un precio mayor o igual a 1000 y menor o igual a 3000.

```
Administrador: Windows PowerShell
> use ecommerce
switched to db ecommerce
> db.productos.find({price: {$gte: 1000, $lte: 3000}})
{ "_id" : ObjectId("6226c17dc90b1298e47c24ff"), "title" : "Programación orientada a objetos con C++", "price" : 1280, "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2019/08/9789587920154.png", "id" : 4 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2500"), "title" : "Programación orientada a objetos en JAVA", "price" : 1700, "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2019/10/Programacion-orientada-Java_DIG.jpg", "id" : 5 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2501"), "title" : "Introducción a la programación con Python", "price" : 2300, "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2020/10/Introd_Programac_PYTHON-scaled.jpg", "id" : 6 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2502"), "title" : "115 ejercicios resueltos de programación C++", "price" : 2860, "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2021/09/115-ejercicios-resueltos-de-programacion.jpg", "id" : 7 }
> db.productos.find({price: {$gte: 1000, $lte: 3000}}).pretty()
{
  "_id" : ObjectId("6226c17dc90b1298e47c24ff"),
  "title" : "Programación orientada a objetos con C++",
  "price" : 1280,
  "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2019/08/9789587920154.png",
  "id" : 4
}
{
  "_id" : ObjectId("6226c17dc90b1298e47c2500"),
  "title" : "Programación orientada a objetos en JAVA",
  "price" : 1700,
  "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2019/10/Programacion-orientada-Java_DIG.jpg",
  "id" : 5
}
{
  "_id" : ObjectId("6226c17dc90b1298e47c2501"),
  "title" : "Introducción a la programación con Python",
  "price" : 2300,
  "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2020/10/Introd_Programac_PYTHON-scaled.jpg",
  "id" : 6
}
{
  "id" : ObjectId("6226c17dc90b1298e47c2502"),
  "title" : "115 ejercicios resueltos de programación C++",
  "price" : 2860,
  "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2021/09/115-ejercicios-resueltos-de-programacion.jpg",
  "id" : 7
}
>
```


Metodo find >=3000

- >db.productos.find({price: {\$gt: 3000}})
- >db.productos.find({price: {\$gt: 3000}}).pretty()

Me muestra en consola listado los productos que tiene un precio Mayor o igual a 3000.

```
Administrador: Windows PowerShell
> use ecommerce
switched to db ecommerce
> db.productos.find({price: {$gt: 3000}})
{ "_id" : ObjectId("6226c17dc90b1298e47c2503"), "title" : "Estructuras de datos: fundamentación práctica", "price" : 3350, "thumbnail" : "https://panamericana.vteximg.com.br/arquivos/ids/396329-1600-1600/estructuras-de-datos-fundamentacion-practica-9789587922707.jpg", "id" : 8 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2504"), "title" : "Aplicaciones gráficas con Python 3", "price" : 4320, "thumbnail" : "https://panamericana.vteximg.com.br/arquivos/ids/305291-1080-1080/aplicaciones-graficas-con-python-3-9789587629026.jpg", "id" : 9 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2505"), "title" : "Hacking ético con herramientas Python", "price" : 4990, "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2019/01/9789587629033.png", "id" : 10 }
> db.productos.find({price: {$gt: 3000}}).pretty()
{
  "_id" : ObjectId("6226c17dc90b1298e47c2503"),
  "title" : "Estructuras de datos: fundamentación práctica",
  "price" : 3350,
  "thumbnail" : "https://panamericana.vteximg.com.br/arquivos/ids/396329-1600-1600/estructuras-de-datos-fundamentacion-practica-9789587922707.jpg",
  "id" : 8
}

{
  "_id" : ObjectId("6226c17dc90b1298e47c2504"),
  "title" : "Aplicaciones gráficas con Python 3",
  "price" : 4320,
  "thumbnail" : "https://panamericana.vteximg.com.br/arquivos/ids/305291-1080-1080/aplicaciones-graficas-con-python-3-9789587629026.jpg",
  "id" : 9
}

{
  "_id" : ObjectId("6226c17dc90b1298e47c2505"),
  "title" : "Hacking ético con herramientas Python",
  "price" : 4990,
  "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2019/01/9789587629033.png",
  "id" : 10
}
```

Metodos sort().limit().skip()

- `db.productos.find({}, {"title":1, "_id":0}).sort({price: 1}).limit(1).skip(2)`

Me muestra en consola el tercer producto mas económico de la colección productos, mostrando únicamente el nombre del mismo.



```
Administrador: Windows PowerShell
> use ecommerce
switched to db ecommerce
> db.productos.find({}, {"title":1, "_id":0}).sort({price: 1}).limit(1).skip(2)
{ "title" : "MERN: Guía Practica Para Aplicaciones WEB" }
```

Metodo updateMany()

- `>db.productos.updateMany({}, {$set: {stock: 100}})`

Este comando ejecuta una actualización masiva en la Colección Productos, agregando un nuevo campo dentro de esta, nombrada stock, quedando todos los productos de forma parcial que un stock de 100 unidades.



```
Administrador: Windows PowerShell
> use ecommerce
switched to db ecommerce
> db.productos.updateMany({}, {$set: {stock: 100}})
{ "acknowledged" : true, "matchedCount" : 11, "modifiedCount" : 11 }
>
```

Metodo updateMany (Parametros de Busqueda)

- `>db.productos.updateMany({price: {$gt: 4000}}, {$set: {stock: 0}})`

Este comando ejecuta una actualización masiva en la Colección Productos, modificando que los productos con un precio mayor o igual a 4000, quedaran con stock 0.



```
Administrador: Windows PowerShell
> use ecommerce
switched to db ecommerce
> db.productos.updateMany({price: {$gt: 4000}}, {$set: {stock: 0}})
{ "acknowledged" : true, "matchedCount" : 2, "modifiedCount" : 2 }
>
```

Metodo deleteMany()

- `>db.productos.deleteMany({price: {$lt: 1000}})`

Este comando ejecuta una eliminación masiva en la Colección Productos, borrando los productos con un precio menor o igual a 1000.



```
Administrador Windows PowerShell
> db.productos.deleteMany({price: {$lt: 1000}})
{ "acknowledged" : true, "deletedCount" : 4 }
>
```

Listando los Cambios Después de los update - delete

- `>db.productos.find().sort({price: -1})`

Este comando ejecuta sea listado, los productos con precio de Mayor a menor, para visualizar los cambios y los documentos actuales.

```
Administrador: Windows PowerShell
> db.productos.find().sort({price: -1}).pretty()
{
  "_id" : ObjectId("6226c17dc90b1298e47c2505"),
  "title" : "Hacking ético con herramientas Python",
  "price" : 4990,
  "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2019/01/9789587629033.png",
  "id" : 10,
  "stock" : 0
}
{
  "_id" : ObjectId("6226c17dc90b1298e47c2504"),
  "title" : "Aplicaciones gráficas con Python 3",
  "price" : 4320,
  "thumbnail" : "https://panamericana.vteximg.com.br/arquivos/ids/305291-1080-1080/aplicaciones-graficas-con-python-3-9789587629026.jpg",
  "id" : 9,
  "stock" : 0
}
{
  "_id" : ObjectId("6226c17dc90b1298e47c2503"),
  "title" : "Estructuras de datos: fundamentación práctica",
  "price" : 3350,
  "thumbnail" : "https://panamericana.vteximg.com.br/arquivos/ids/396329-1600-1600/estructuras-de-datos-fundamentacion-practica-9789587922707.jpg",
  "id" : 8,
  "stock" : 100
}
{
  "_id" : ObjectId("6226c17dc90b1298e47c2502"),
  "title" : "115 ejercicios resueltos de programación C++",
  "price" : 2860,
  "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2021/09/115-ejercicios-resueltos-de-programacion.jpg",
  "id" : 7,
  "stock" : 100
}
{
  "_id" : ObjectId("6226c17dc90b1298e47c2501"),
  "title" : "Introducción a la programación con Python",
  "price" : 2300,
  "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2020/10/Introd_Programac_PYTHON-scaled.jpg",
  "id" : 6,
  "stock" : 100
}
{
  "_id" : ObjectId("6226c17dc90b1298e47c2500"),
  "title" : "Programación orientada a objetos en JAVA",
  "price" : 1700,
  "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2019/10/Programacion-orientada-Java_DIG.jpg",
  "id" : 5,
  "stock" : 100
}
{
  "_id" : ObjectId("6226c17dc90b1298e47c24ff"),
  "title" : "Programación orientada a objetos con C++",
  "price" : 1280,
  "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2019/08/9789587920154.png",
  "id" : 4,
  "stock" : 100
}
>
```

Creando Servidor y Definiendo Rutas Base de Datos

- `>use admin`
Ingresamos a la coleccion admin para que quede registrado el nuevo usuario.
- `>db.createUser({user: "pepe", pwd: "asd456", roles: [{ role: "read", db: "ecommerce" }]})`
Con este comando procedemos a crear un usuario con rol de lectura (read), y únicamente con acceso a la db "ecommerce".



```
Seleccionar Administrador: Windows PowerShell
> use admin
switched to db admin
> db.createUser({user: "pepe", pwd: "asd456", roles: [{ role: "read", db: "ecommerce" }]} )
Successfully added user: {
  "user" : "pepe",
  "roles" : [
    {
      "role" : "read",
      "db" : "ecommerce"
    }
  ]
}
```

Creando Servidor y Definiendo Rutas Base de Datos

- PS C:\Users\german> mongo -u pepe

Nos logueamos con usuario pepe e ingresamos password cuando la solicite.

```
Administrador: Windows PowerShell
PS C:\Users\german> mongo -u pepe
MongoDB shell version v4.2.8
Enter password:
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("ef58e86b-6d33-452f-b540-0281c7188aab") }
MongoDB server version: 4.2.8
Server has startup warnings:
2022-03-07T19:52:19.706-0500 I CONTROL [initandlisten]
2022-03-07T19:52:19.706-0500 I CONTROL [initandlisten] ** WARNING: Access control is not enabled for the database.
2022-03-07T19:52:19.706-0500 I CONTROL [initandlisten] **      Read and write access to data and configuration is unrestricted.
2022-03-07T19:52:19.707-0500 I CONTROL [initandlisten]
2022-03-07T19:52:19.707-0500 I CONTROL [initandlisten] ** WARNING: This server is bound to localhost.
2022-03-07T19:52:19.707-0500 I CONTROL [initandlisten] **      Remote systems will be unable to connect to this server.
2022-03-07T19:52:19.707-0500 I CONTROL [initandlisten] **      Start the server with --bind_ip <address> to specify which IP
2022-03-07T19:52:19.707-0500 I CONTROL [initandlisten] **      addresses it should serve responses from, or with --bind_ip_all to
2022-03-07T19:52:19.707-0500 I CONTROL [initandlisten] **      bind to all interfaces. If this behavior is desired, start the
2022-03-07T19:52:19.707-0500 I CONTROL [initandlisten] **      server with --bind_ip 127.0.0.1 to disable this warning.
2022-03-07T19:52:19.708-0500 I CONTROL [initandlisten]
---
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()
---
```


Creando Servidor y Definiendo Rutas Base de Datos

- `>db.productos.insertOne({ title: 'Programación Con Germán', price: 1000, thumbnail: 'https://programacioncongerman', id: 12 })`

Realizamos prueba de permisos y roles, comprobando que no le es permitido insertar o realizar cambios al usuario PEPE.

```
Selecionar Administrador: Windows PowerShell
PS C:\Users\germa> mongo -u pepe
MongoDB shell version v4.2.8
Enter password:
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("e3b111ac-a324-4444-9e01-5be1f1220a52") }
MongoDB server version: 4.2.8
> show dbs
ecommerce 0.000GB
> use ecommerce
switched to db ecommerce
> show collections
mensajes
productos
> db.productos.find()
{ "_id" : ObjectId("6226c17dc90b1298e47c24ff"), "title" : "Programación orientada a objetos con C++", "price" : 1280, "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2019/08/9789587920154.png", "id" : 4, "stock" : 100 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2500"), "title" : "Programación orientada a objetos en JAVA", "price" : 1700, "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2019/10/Programacion-orientada-Java_DIG.jpg", "id" : 5, "stock" : 100 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2501"), "title" : "Introducción a la programación con Python", "price" : 2300, "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2020/10/Introd_Programac_PYTHON-scaled.jpg", "id" : 6, "stock" : 100 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2502"), "title" : "115 ejercicios resueltos de programación C++", "price" : 2860, "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2021/09/115-ejercicios-resueltos-de-programacion.jpg", "id" : 7, "stock" : 100 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2503"), "title" : "Estructuras de datos: fundamentación práctica", "price" : 3350, "thumbnail" : "https://panamericana.vteximg.com.br/arquivos/ids/396329-1600-1600/estructuras-de-datos-fundamentacion-practica-9789587922707.jpg", "id" : 8, "stock" : 100 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2504"), "title" : "Aplicaciones gráficas con Python 3", "price" : 4320, "thumbnail" : "https://panamericana.vteximg.com.br/arquivos/ids/305291-1080-1080/aplicaciones-graficas-con-python-3-9789587629026.jpg", "id" : 9, "stock" : 0 }
{ "_id" : ObjectId("6226c17dc90b1298e47c2505"), "title" : "Hacking ético con herramientas Python", "price" : 4990, "thumbnail" : "https://edicionesdelau.com/wp-content/uploads/2019/01/9789587629033.png", "id" : 10, "stock" : 0 }
> db.productos.insertOne({ title: 'Germán Programa', price: 580, thumbnail: 'https://germanprograma', id: 12 })
2022-03-07T21:58:34.023-0500 E QUERY [js] uncaught exception: WriteCommandError({
  "ok" : 0,
  "errmsg" : "not authorized on ecommerce to execute command { insert: \"productos\", ordered: true, lsid: { id: UUID(\"e3b111ac-a324-4444-9e01-5be1f1220a52\") }, $db: \"ecommerce\" }",
  "code" : 13,
  "codeName" : "Unauthorized"
}):
WriteCommandError({
  "ok" : 0,
  "errmsg" : "not authorized on ecommerce to execute command { insert: \"productos\", ordered: true, lsid: { id: UUID(\"e3b111ac-a324-4444-9e01-5be1f1220a52\") }, $db: \"ecommerce\" }",
  "code" : 13,
  "codeName" : "Unauthorized"
})
WriteCommandError@src/mongo/shell/bulk_api.js:417:48
executeBatch@src/mongo/shell/bulk_api.js:915:23
Bulk/this.execute@src/mongo/shell/bulk_api.js:1163:21
DBCollection.prototype.insertOne@src/mongo/shell/crud_api.js:264:9
@shell):1:1
>
```