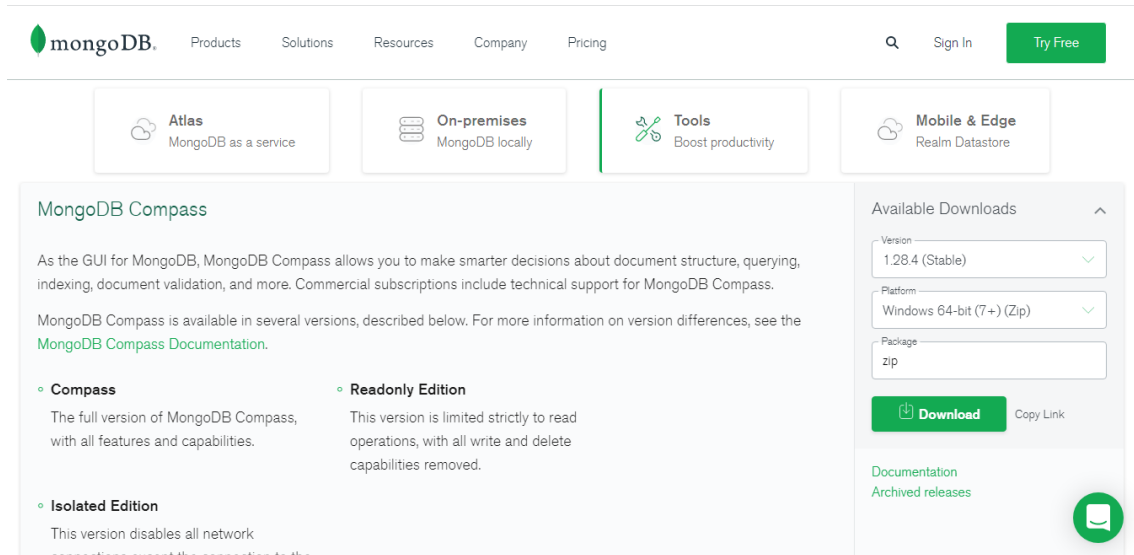


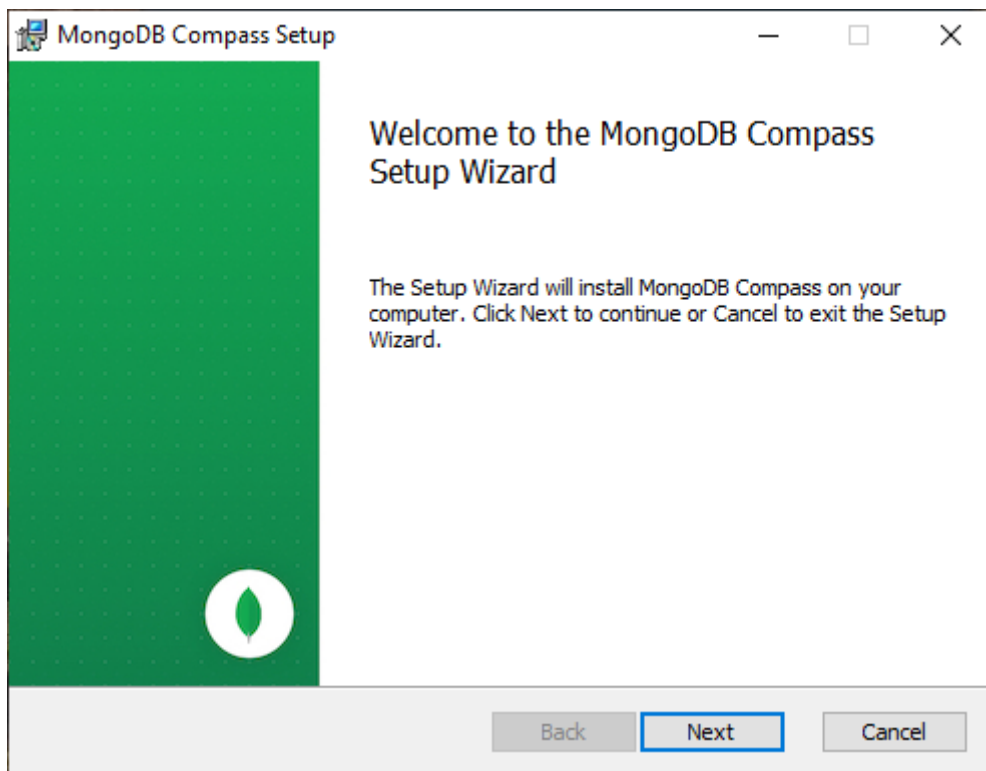
MANUAL PRIMERA BD EN MONGODB

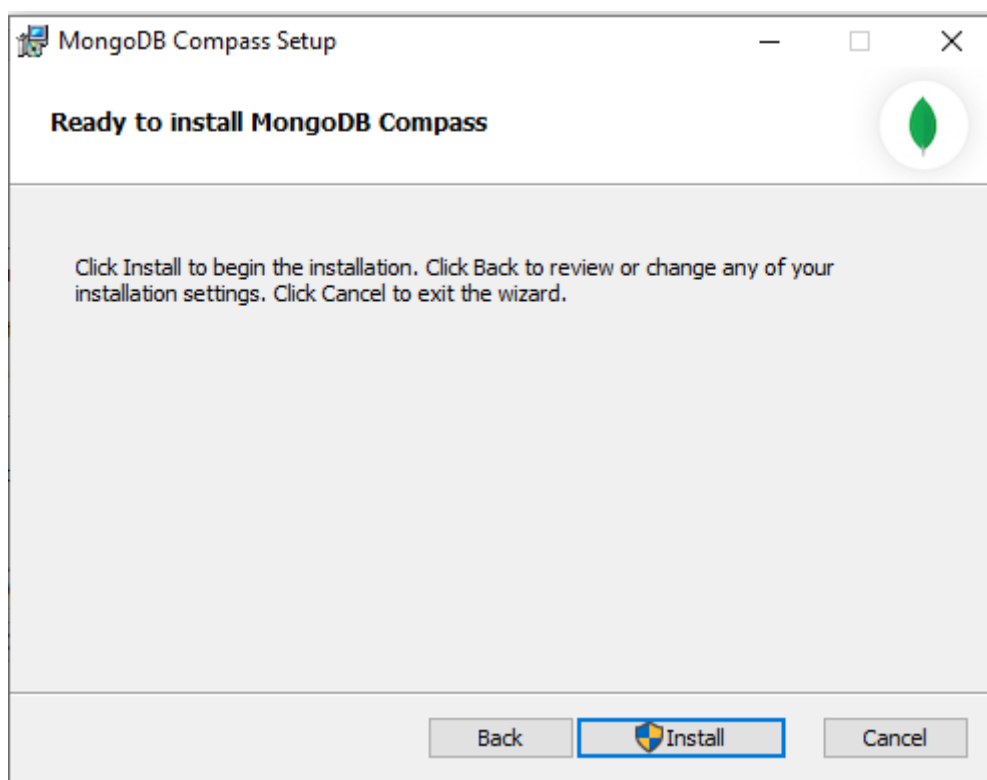
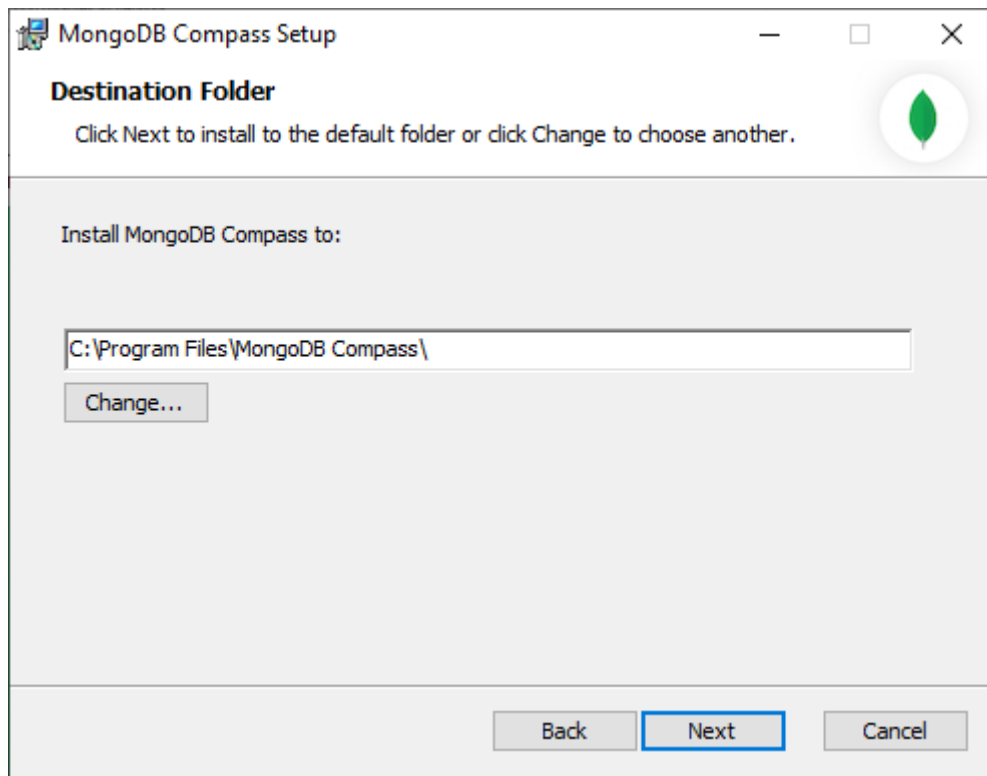
Instalación y Configuración de MongoDB

- Vamos a la pagina oficial de MongoDB y descargamos el cliente grafico compass:
<https://www.mongodb.com/try/download/compass>

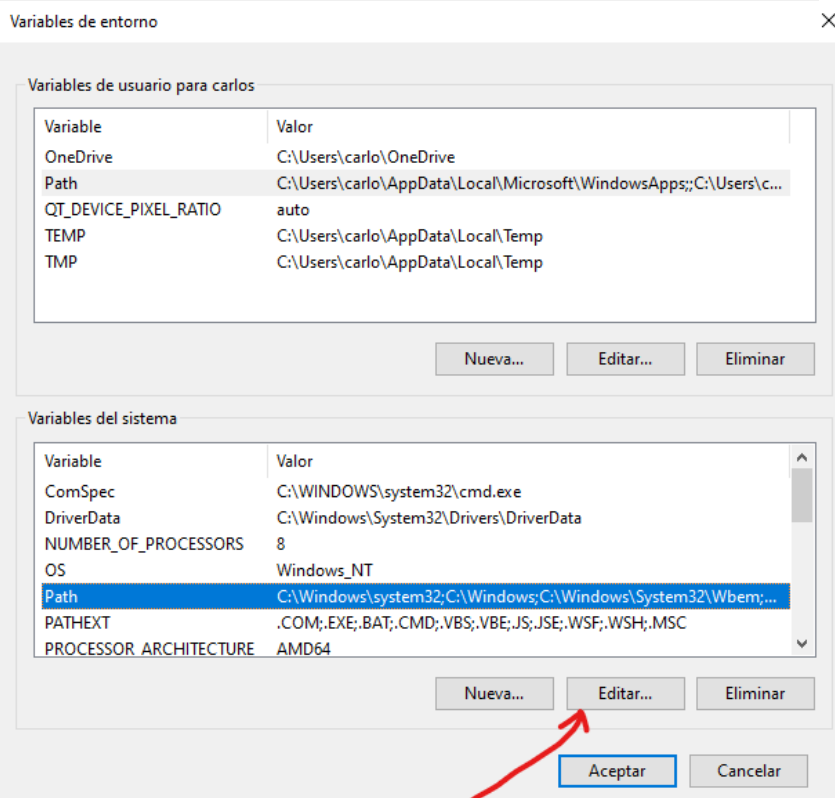
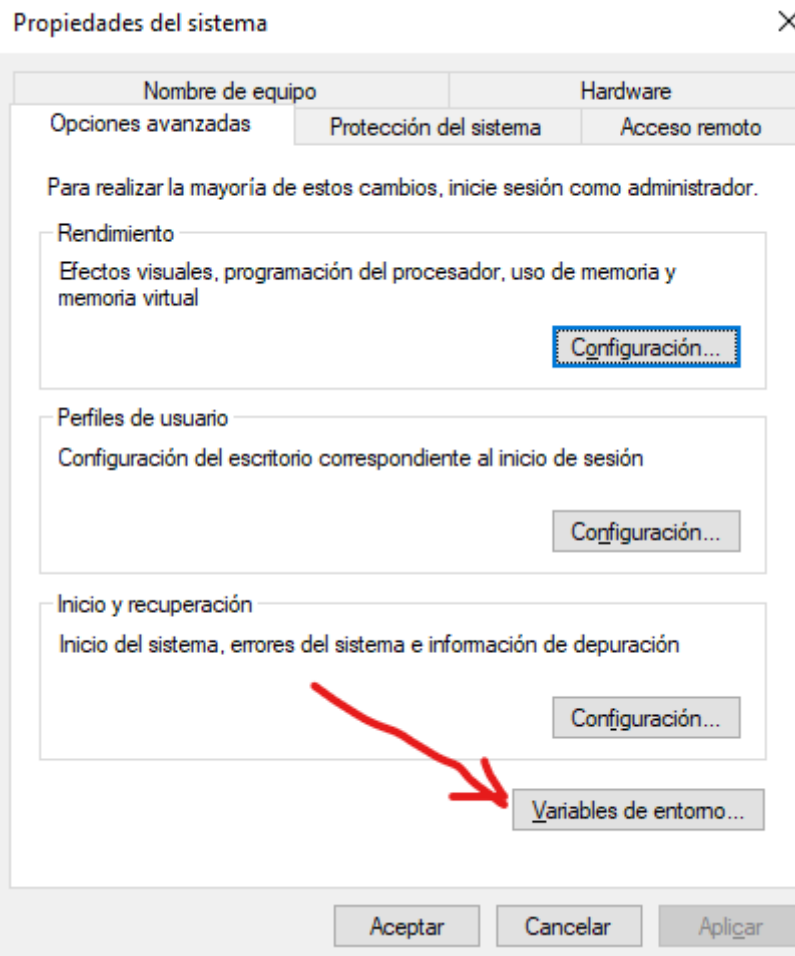


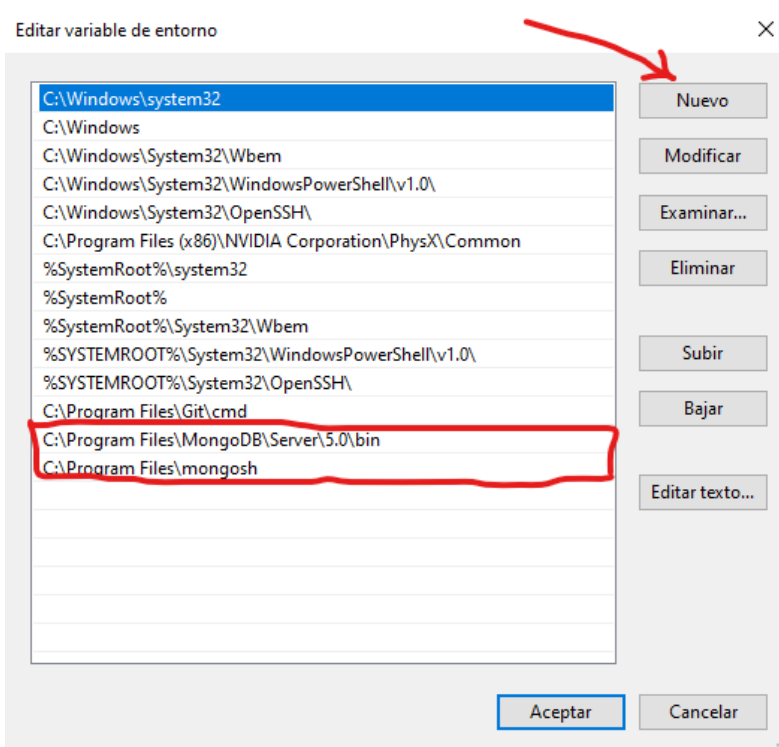
- Ejecutamos el .msi que nos descarga y se nos abrirá el setup wizard





- Una vez instalado tendremos que ir a las variables de entornos para que la Shell reconozca el programa





- Introducimos la dirección de las carpetas donde se encuentran el exe de mongoDB y mongosh
- Si todo ha ido bien al abrir la Shell y escribir mongo se nos iniciara la shell de mongo.

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

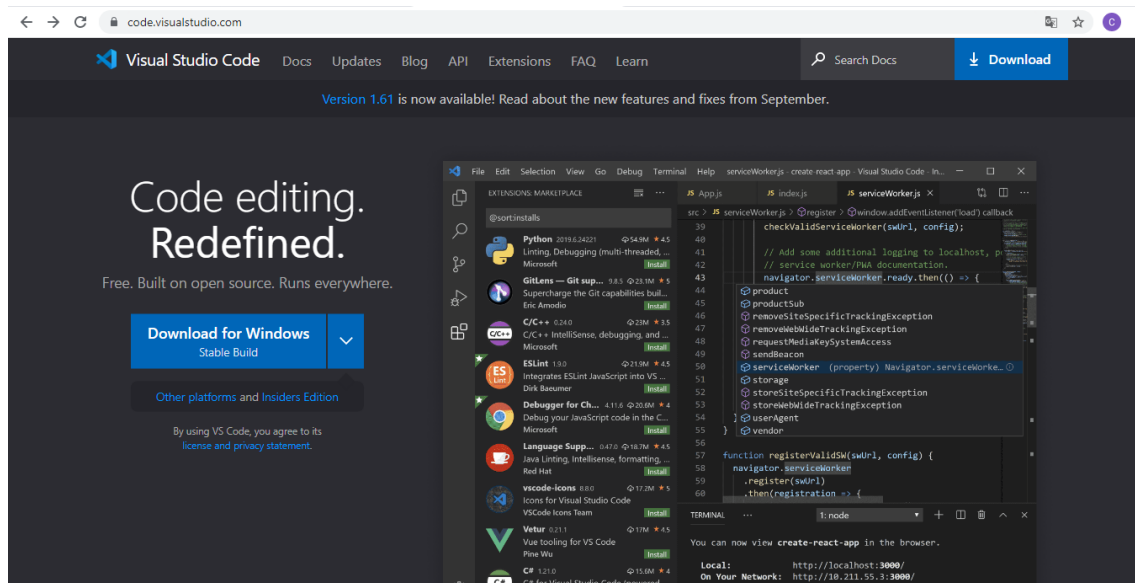
PS C:\Users\carlo> mongo
MongoDB shell version v5.0.3
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("9d24b51b-d3c0-4747-ab6d-7b875d26779d") }
MongoDB server version: 5.0.3
=====
Warning: the "mongo" shell has been superseded by "mongosh",
which delivers improved usability and compatibility. The "mongo" shell has been deprecated and will be removed in
an upcoming release.
We recommend you begin using "mongosh".
For installation instructions, see
https://docs.mongodb.com/mongodb-shell/install/
=====
---
The server generated these startup warnings when booting:
  2021-10-16T16:16:06.591+02:00: 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.

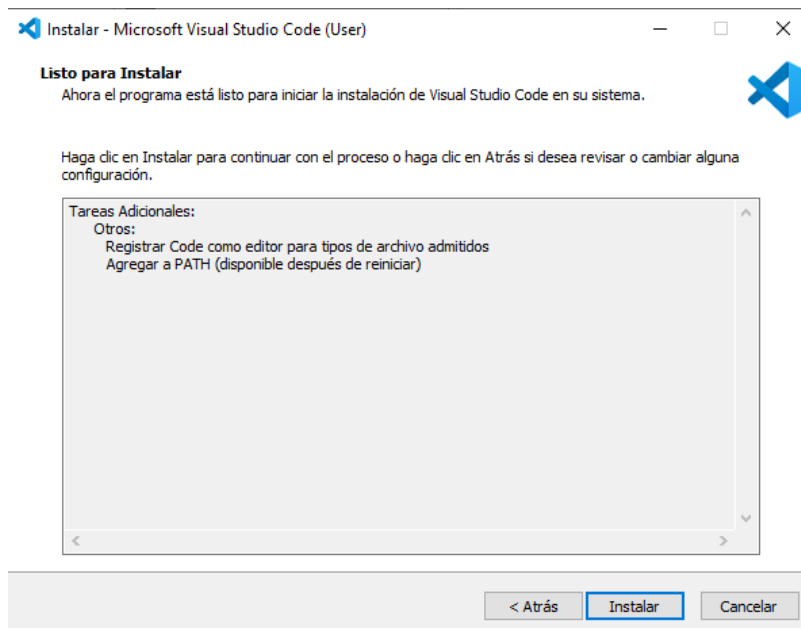
To enable free monitoring, run the following command: db.enableFreeMonitoring()
To permanently disable this reminder, run the following command: db.disableFreeMonitoring()
---
>
```

Descargar y Configurar Visual Studio Code

- Vamos a la pagina oficial de VSC y descargamos el .exe: <https://code.visualstudio.com/>



- Ejecutamos el instalador de VSC y lo instalamos



Creando la Base de Datos en mongoDB

Ya con esto ya podremos empezar con la base de datos.

Estaremos manejando la base de datos con la consola de comandos Shell por lo que será necesario conocer una serie de comandos para poder empezar.

- >mongo; Nos meterá en la Shell de mongo

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

PS C:\Users\carlo> mongo
MongoDB shell version v5.0.3
connecting to: mongodb://127.0.0.1:27017/?compressors=disabled&gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("b4609a32-1814-46b6-862c-abdbbc7df892") }
MongoDB server version: 5.0.3
=====
Warning: the "mongo" shell has been superseded by "mongosh",
which delivers improved usability and compatibility. The "mongo" shell has been deprecated and will be removed in
an upcoming release.
We recommend you begin using "mongosh".
For installation instructions, see
https://docs.mongodb.com/mongodb-shell/install/
=====
---
The server generated these startup warnings when booting:
  2021-10-16T16:16:06.591+02:00: 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()
---
> ■
```

- >db; Nos muestra la base de datos en la que estamos.

```
> db
test
>
```

- >show dbs; Nos muestra las base de datos que tenemos.

```
> show dbs
admin      0.000GB
bdp01     0.000GB
config    0.000GB
local     0.000GB
prueba    0.000GB
test      0.000GB
>
```

- >use nombreDB; Cambiaremos a la base de datos del nombre que pongamos o si no existe la creara.

```
> use bdp01
switched to db bdp01
> ■
```

- >show collections; Nos muestra las colecciones que tenemos en esa base de datos.

```
> show collections
inventory
>
```

- >db.nombreColección.insertOne({}); Inserta un documento JSON

```
> db.coleccion01.insertOne({nombre: "Pepe", edad:20})
{
  "acknowledged" : true,
  "insertedId" : ObjectId("616bf25a8413abd649750932")
}
```

- >db.nombreColección.insertMany([,]); Inserta varios documentos en forma de Array

```
> db.coleccion01.insertMany(
...   [
...     { item: "canvas", qty: 100, tags: ["cotton"], size: { h: 28, w: 35.5, uom: "cm" } },
...     { item: "folder", qty: 90, tags: ["cotton", "paper"], size: { h: 20, w: 37.5, uom: "cm" } },
...     { item: "pen", qty: 10, tags: ["wooden", "grafito"], size: { h: 8, w: 10, uom: "cm" } },
...     { item: "tablet", qty: 12, tags: ["metal", "pastic"], size: { h: 30, w: 45.5, uom: "cm" } }
...   ]
... )
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("616bf32e4032e31048e68021"),
    ObjectId("616bf32e4032e31048e68022"),
    ObjectId("616bf32e4032e31048e68023"),
    ObjectId("616bf32e4032e31048e68024")
  ]
}
```

- >db.nombreColección.find(); Nos muestra todos los documentos introducidos en la colección. Si introducimos un campo en concreto nos mostrará todos los documentos coincidentes en ese campo

```
> db.coleccion01.find()
{ "_id" : ObjectId("616bf25a8413abd649750932"), "nombre" : "Pepe", "edad" : 20 }
{ "_id" : ObjectId("616bf32e4032e31048e68021"), "item" : "canvas", "qty" : 100, "tags" : [ "cotton" ], "size" : { "h" : 28, "w" : 35.5, "uom" : "cm" } }
{ "_id" : ObjectId("616bf32e4032e31048e68022"), "item" : "folder", "qty" : 90, "tags" : [ "cotton", "paper" ], "size" : { "h" : 20, "w" : 37.5, "uom" : "cm" } }
{ "_id" : ObjectId("616bf32e4032e31048e68023"), "item" : "pen", "qty" : 10, "tags" : [ "wooden", "grafito" ], "size" : { "h" : 8, "w" : 10, "uom" : "cm" } }
{ "_id" : ObjectId("616bf32e4032e31048e68024"), "item" : "tablet", "qty" : 12, "tags" : [ "metal", "pastic" ], "size" : { "h" : 30, "w" : 45.5, "uom" : "cm" } }
```

- >db.nombreColección.drop(); Eliminamos la colección

```
> show collections
coleccion01
inventory
> db.coleccion01.drop()
true
> show collections
inventory
>
```

- >db.nombreColección.deleteMany({}); Borraremos todos los documentos de la colección. Si especificamos el campo eliminará los documentos con ese campo.

```
> db.coleccion01.deleteMany({})
{ "acknowledged" : true, "deletedCount" : 4 }
>
```


Nuestra Base de Datos

Nuestra base de datos va a guardar la información de los jugadores de un videojuego Online.

De cada jugador guardaremos su nombre del juego “nickName”, la región “rgn” en la que juega que consistirá en el server al que se conecta “Server” y el país “Country”. Su nacionalidad “nat”, equipo en el que juega “Team”, edad “age”, mando con el que juega “Controller”, y la configuración que tiene en el juego “Settings”

```
db.playersList.insertMany(  
  [  
    {nickName:"", rgn: {Server: "", Country: ""}, nat:"", team:"",  
    age: , controller:"", Setting: {cameraFov:, deadzone:, Sensitivity:}},  
  ]  
)
```

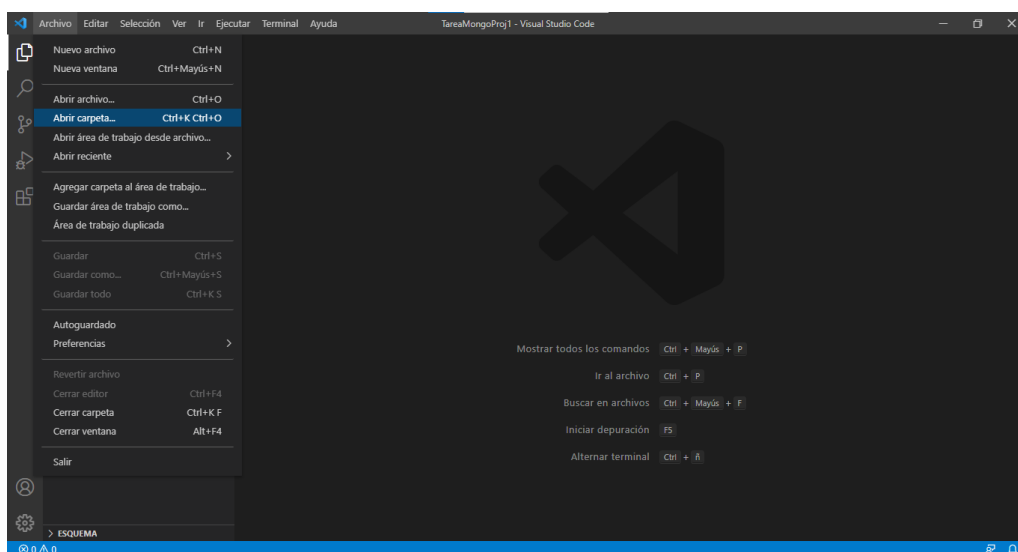
Para empezar, crearemos una carpeta con el nombre del proyecto en mi caso

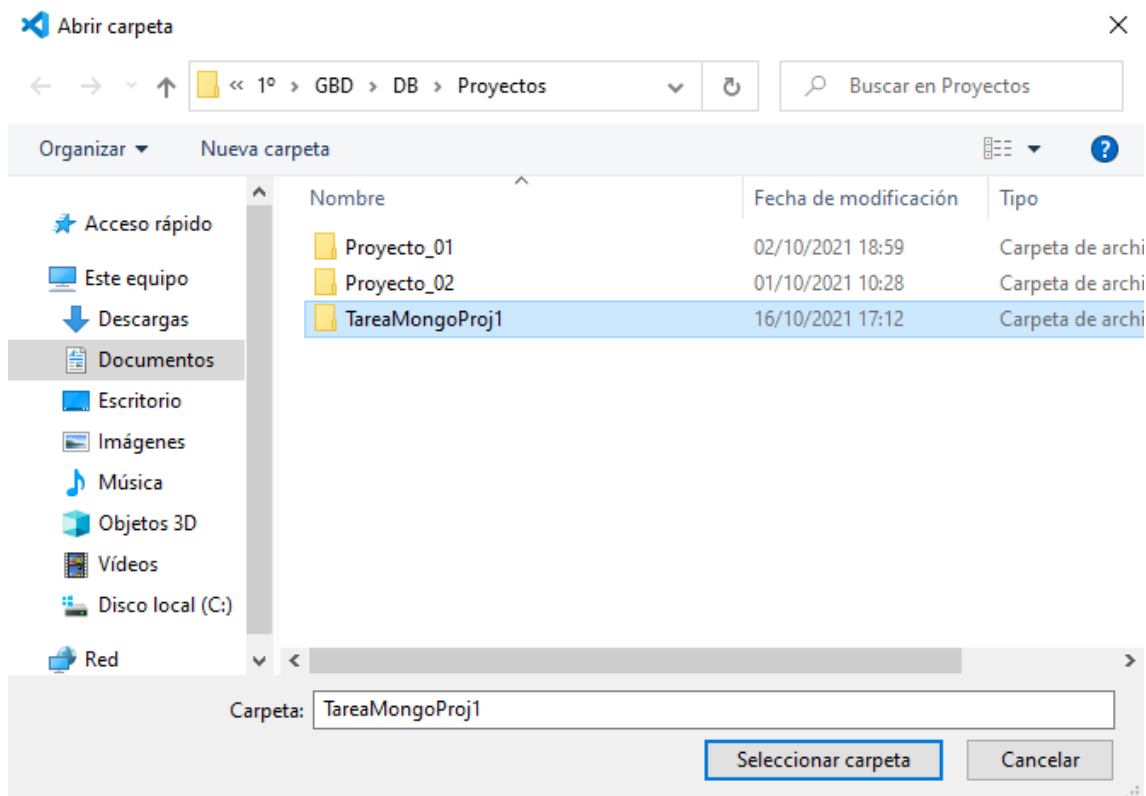
TareaMongoProj1

Dentro de esta carpeta crearemos dos carpetas con el nombre **doc, src** y un archivo README.md

En la carpeta **doc** guardaremos los documentos explicativos de la base de datos y en la carpeta **src** guardaremos los documentos .js que insertaremos en la base de datos

Una vez hecho esto abriremos VS code y abriremos la carpeta del proyecto





Dentro de **src** crearemos dos documentos **colecciones.js** y **enunciados.js**

Ahora abriremos nuestra Windows Shell y ejecutaremos mongo

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

PS C:\Users\carlo> mongosh
Current Mongosh Log ID: 616c05546bc66787a13f43ab
Connecting to:      mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000
Using MongoDB:      5.0.3
Using Mongosh:      1.0.7

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

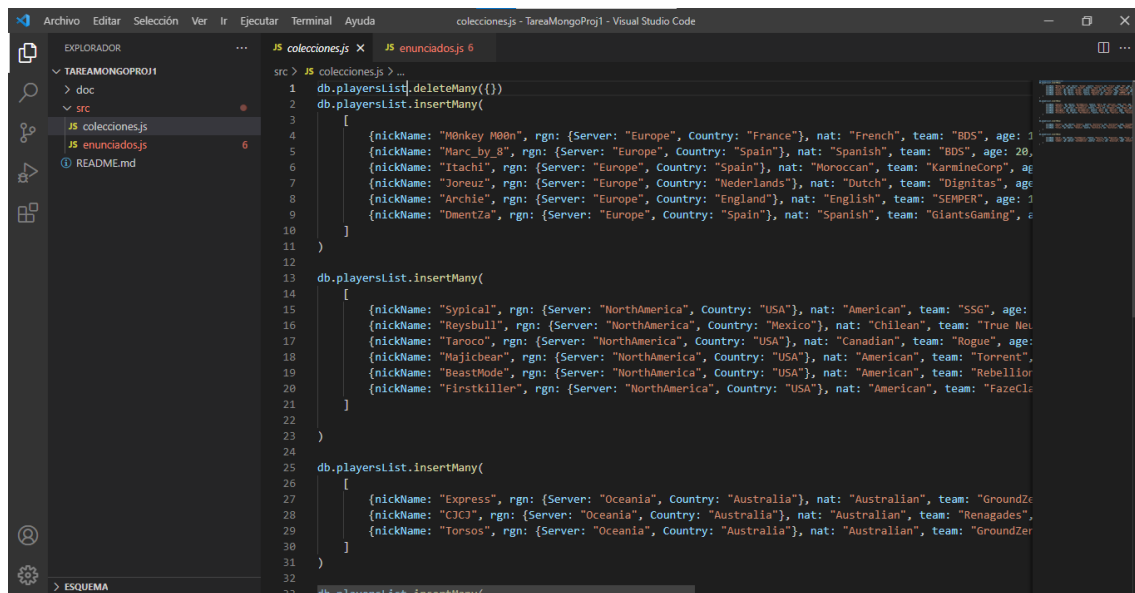
-----
The server generated these startup warnings when booting:
  2021-10-16T16:16:06.591+02:00: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted
-----

Warning: Found ~/.mongorc.js, but not ~/.mongoshrc.js. ~/.mongorc.js will not be loaded.
You may want to copy or rename ~/.mongorc.js to ~/.mongoshrc.js.
test>
```

Y crearemos la base de datos OnlineVideogame

```
test> use OnlineVideogame
switched to db OnlineVideogame
OnlineVideogame>
```

En VS code crearemos las colecciones que insertaremos en la base de datos



```
1 db.playersList.deleteMany({})
2 db.playersList.insertMany(
3   [
4     {nickName: "M0nkey M00n", rgn: {Server: "Europe", Country: "France"}, nat: "French", team: "BDS", age: 1},
5     {nickName: "Marc_by_8", rgn: {Server: "Europe", Country: "Spain"}, nat: "Spanish", team: "BDS", age: 20},
6     {nickName: "Itachi", rgn: {Server: "Europe", Country: "Spain"}, nat: "Moroccan", team: "KarmineCorp", age: 1},
7     {nickName: "Joneuz", rgn: {Server: "Europe", Country: "Nederlands"}, nat: "Dutch", team: "Dignitas", age: 1},
8     {nickName: "Archie", rgn: {Server: "Europe", Country: "England"}, nat: "English", team: "SEMPER", age: 1},
9     {nickName: "DmentZa", rgn: {Server: "Europe", Country: "Spain"}, nat: "Spanish", team: "GiantsGaming", age: 1}
10  ]
11 )
12
13 db.playersList.insertMany(
14   [
15     {nickName: "Sypical", rgn: {Server: "NorthAmerica", Country: "USA"}, nat: "American", team: "SSG", age: 1},
16     {nickName: "Reysbull", rgn: {Server: "NorthAmerica", Country: "Mexico"}, nat: "Chilean", team: "True Neutral", age: 1},
17     {nickName: "Taroco", rgn: {Server: "NorthAmerica", Country: "USA"}, nat: "Canadian", team: "Rogue", age: 1},
18     {nickName: "Majicbear", rgn: {Server: "NorthAmerica", Country: "USA"}, nat: "American", team: "10rrent", age: 1},
19     {nickName: "BeastMode", rgn: {Server: "NorthAmerica", Country: "USA"}, nat: "American", team: "Rebeller", age: 1},
20     {nickName: "Firstkiller", rgn: {Server: "NorthAmerica", Country: "USA"}, nat: "American", team: "FazeClash", age: 1}
21  ]
22 )
23
24 db.playersList.insertMany(
25   [
26     {nickName: "Express", rgn: {Server: "Oceania", Country: "Australia"}, nat: "Australian", team: "GroundZer", age: 1},
27     {nickName: "CJCI", rgn: {Server: "Oceania", Country: "Australia"}, nat: "Australian", team: "Renagades", age: 1},
28     {nickName: "Torsos", rgn: {Server: "Oceania", Country: "Australia"}, nat: "Australian", team: "GroundZer", age: 1}
29  ]
30 )
31
32
33
```

Dentro de la DB crearemos la colección playersList que será la colección en la que guardaremos toda la lista de jugadores.

Para cargar el archivo .js en la base de datos usaremos el comando load y la dirección del archivo.

```
OnlineVideogame> load("colecciones.js")
true    73.7 kB
```

Si usamos el comando db.playersList.find() comprobaremos que todos los documentos se han cargado correctamente.

Las consultas e inserts se encuentran en los .js.