

Registro y uso de Mongo Atlas

IMPORTAR/EXPORTAR BASES DE DATOS A ATLAS

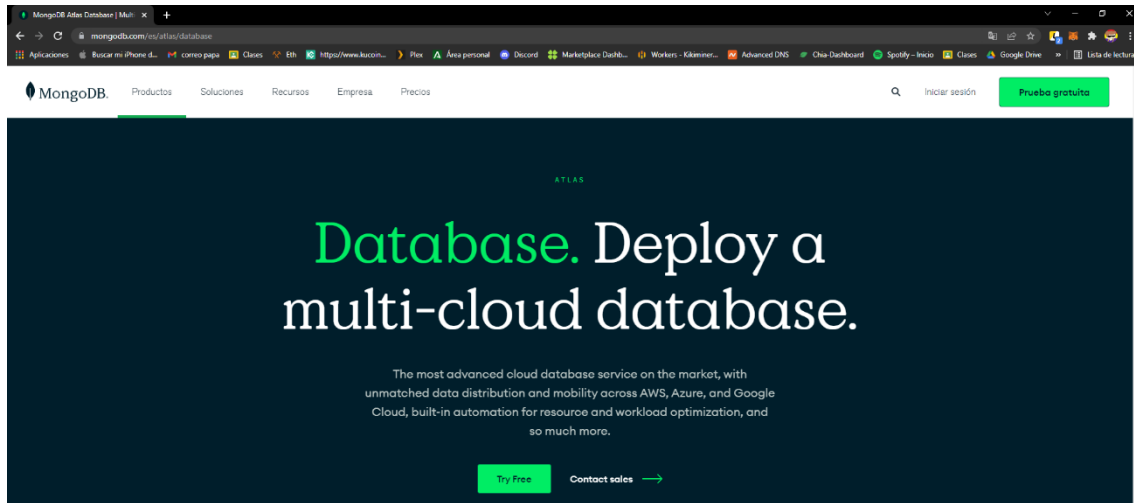
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MONGO ATLAS | 1º DAM

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1. Registro en MongoAtlas

Para registrarnos en MongoAtlas, tendremos que ir a su [página oficial](https://www.mongodb.com/atlas/database) y realizar los siguientes pasos:



Creamos una cuenta o iniciamos sesión con google:

A screenshot of the MongoDB Atlas login and sign-up form. On the left, under the MongoDB logo, is the heading 'Log in to your account'. Below it is a 'Log in with Google' button. Further down is an 'Email Address' input field. At the bottom left is a 'Next' button. On the right, there are four input fields: 'Email Address' (with the value 'fbuiper386a@g.educaand.es'), 'First Name' (with the value 'Francisco'), 'Last Name' (with the value 'Buiza'), and 'Password' (with masked characters). Each of these fields has a green checkmark to its right. Below the 'Email Address' field is a link that says 'Don't have an account? Sign Up', where 'Sign Up' is circled in red. At the bottom, there is a 'Sign up' button (circled in red) and a link that says 'Have an account? Log in now'. A password requirements box is also visible, stating: 'Your password must: • Contain at least 8 characters • Contain unique characters, numbers, or symbols • Not contain your email address'.



Great, now verify your email



Check your inbox at <fbuiper386a@g.educaand.es> and click the verification link inside to complete your registration. This link will expire shortly, so verify soon!

Don't see an email? Check your spam folder.

Link expired? [Resend verification email](#)

Ahora tenemos que verificar el correo entrando en el enlace que nos han enviado a nuestra bandeja:




Email Address Verification



Verify Email

Rellenamos el siguiente formulario:

Welcome to Atlas! 

Tell us a few things about yourself and your project.



What is your goal today?

Your answer will help us guide you to successfully getting started with MongoDB Atlas.

- ☐ Explore what I can build
- ☐ Build a new application
- ☐ Migrate an existing application
- ☒ Learn MongoDB

What type of application are you building?

Content Management

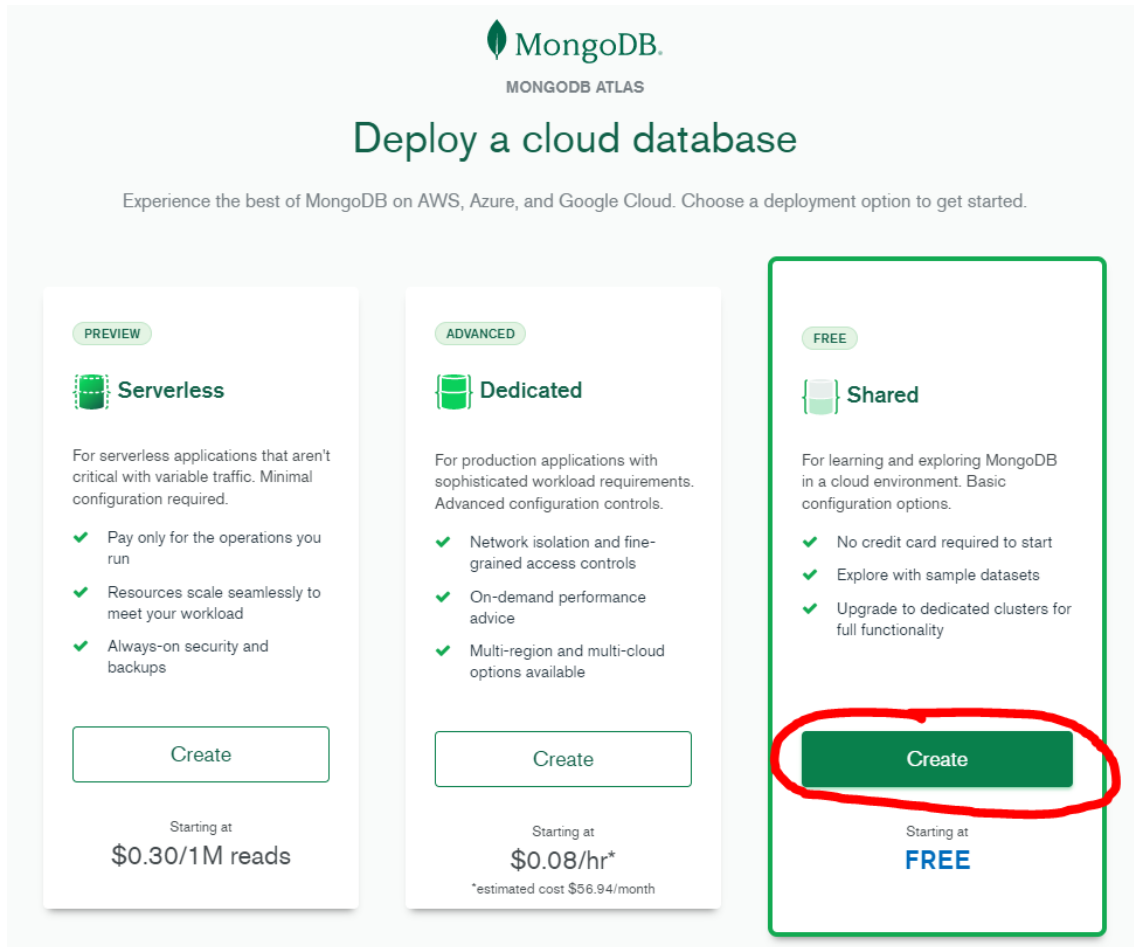
What is your preferred language?

We'll use this to customize code samples and content we share with you. You can always change this later.

JS JavaScript

Finish

Ahora tenemos que elegir nuestro plan. Como el presupuesto no da para mucho, vamos a elegir la opción gratuita:



MongoDB.
MONGODB ATLAS

Deploy a cloud database

Experience the best of MongoDB on AWS, Azure, and Google Cloud. Choose a deployment option to get started.

PREVIEW

Serverless

For serverless applications that aren't critical with variable traffic. Minimal configuration required.

- ✓ Pay only for the operations you run
- ✓ Resources scale seamlessly to meet your workload
- ✓ Always-on security and backups

Create

Starting at
\$0.30/1M reads

ADVANCED

Dedicated

For production applications with sophisticated workload requirements. Advanced configuration controls.

- ✓ Network isolation and fine-grained access controls
- ✓ On-demand performance advice
- ✓ Multi-region and multi-cloud options available

Create

Starting at
\$0.08/hr*
*estimated cost \$56.94/month

FREE

Shared

For learning and exploring MongoDB in a cloud environment. Basic configuration options.

- ✓ No credit card required to start
- ✓ Explore with sample datasets
- ✓ Upgrade to dedicated clusters for full functionality

Create

Starting at
FREE

Cuando elijamos la opción, le damos al botón de crear clúster.

Una vez creado, nos saldrá una configuración rápida, donde podremos crear usuarios para conectarnos a las bases de datos en la nube. Vamos a ignorarlo y vamos a añadir más abajo, en la opción de añadir IPs, la IP 0.0.0.0 para poder conectarnos desde cualquier IP:

Set your network security with any of the following options

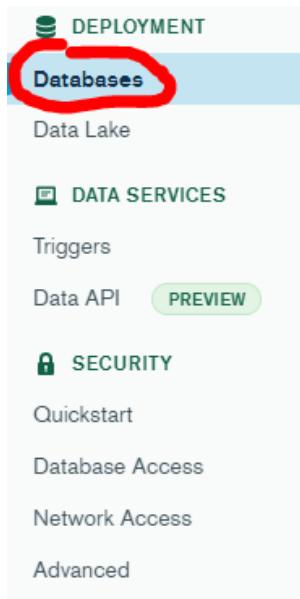
Only an IP address you add to your Access List will be able to connect to your project's clusters. You can manage existing IP entries via the [Network Access Page](#).

IP Address	Description		
<input type="text" value="Enter IP Address"/>	<input type="text" value="Enter description"/>	<input type="button" value="Add Entry"/>	<input type="button" value="Add My Current IP Address"/>

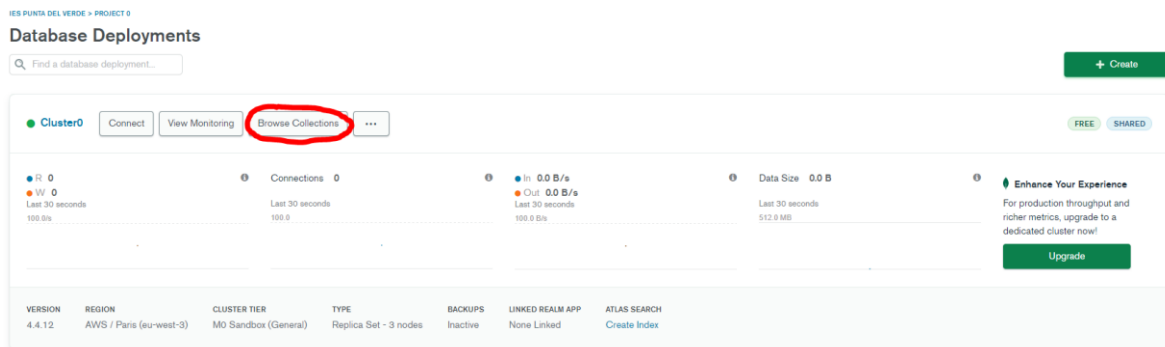
IP Access List	Description	
0.0.0.0/0	0	<input type="button" value="REMOVE"/>

2. Crear una colección en MongoDB

Nos vamos al apartado de Databases:



Una vez dentro, pulsamos en browser collections:

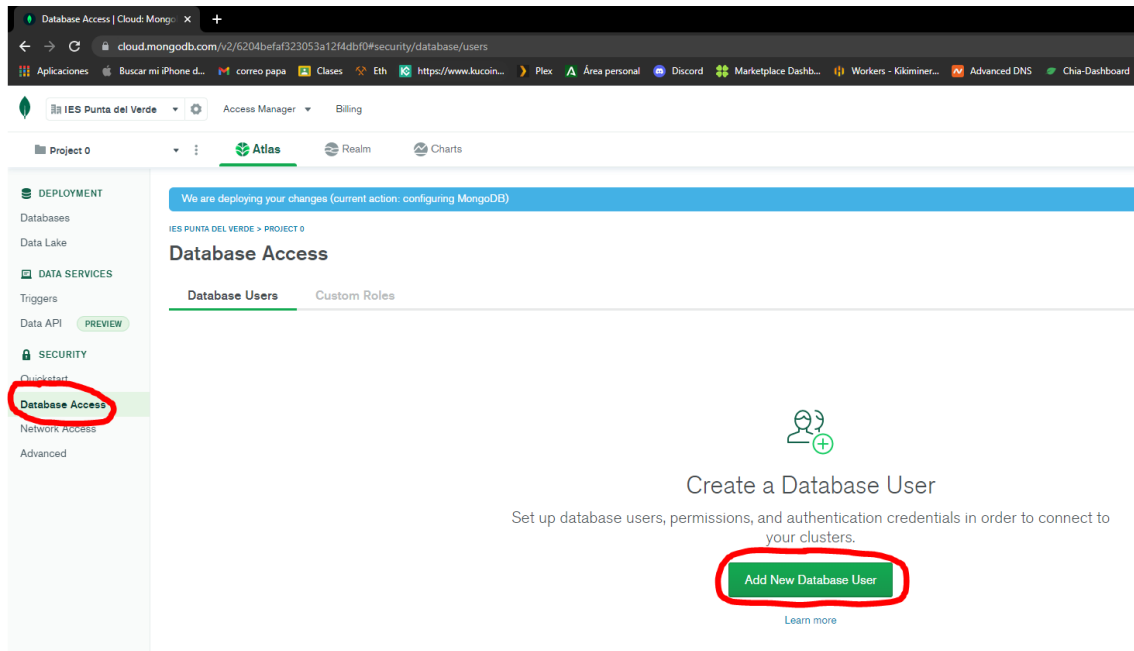


Ahora creamos una base de datos y una colección:

The image shows a 'Create Database' modal dialog box. It has a title bar with a close button (X). The form contains two input fields: 'Database name' with the value 'ventas' and 'Collection name' with the value 'articulos'. Below these is a section for 'Additional Preferences' with a checkbox for 'Capped Collection' which is currently unchecked. At the bottom right, there are two buttons: 'Cancel' and 'Create'.

3. Administración de usuarios en MongoAtlas

Vamos a crear un usuario para acceder a nuestra base de datos:



Voy a crear un usuario con los siguientes privilegios:

franbuiper

..... SHOW

🔍 Autogenerate Secure Password Copy

Database User Privileges

Configure role based access control by assigning database users a mix of one built-in role, multiple custom roles, and multiple specific privileges. A user will gain access to all actions within the roles assigned to them, not just the actions those roles share in common. **You must choose at least one role or privilege.** [Learn more about roles.](#)

Built-in Role

Select one [built-in role](#) for this user.

Add Built In Role

Custom Roles

Select your [pre-defined custom role\(s\)](#). Create a custom role in the [Custom Roles](#) [tab](#).

Specific Privileges

1 SELECTED

Select multiple privileges and what database and collection they are associated with. Leaving collection blank will grant this role for all collections in the database.

readWrite

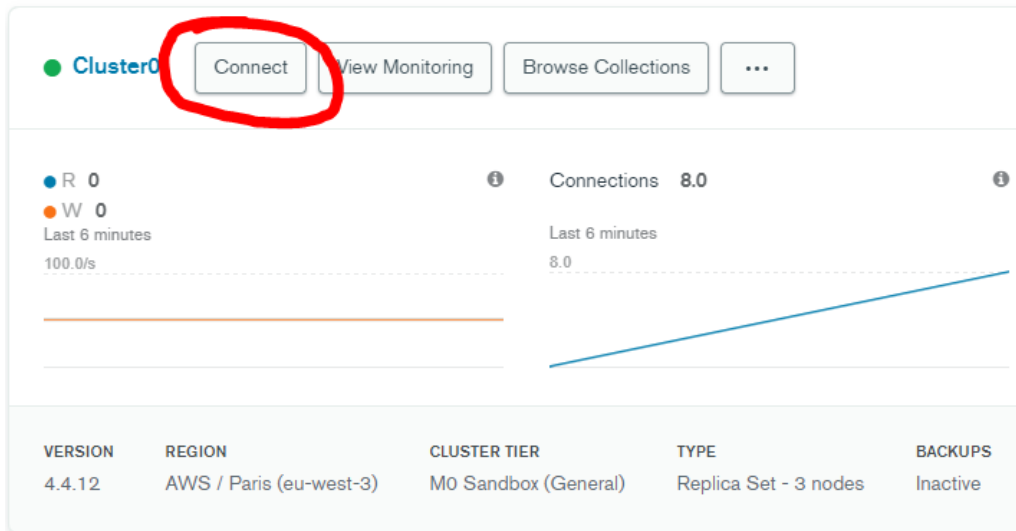
@

ventas

articulos

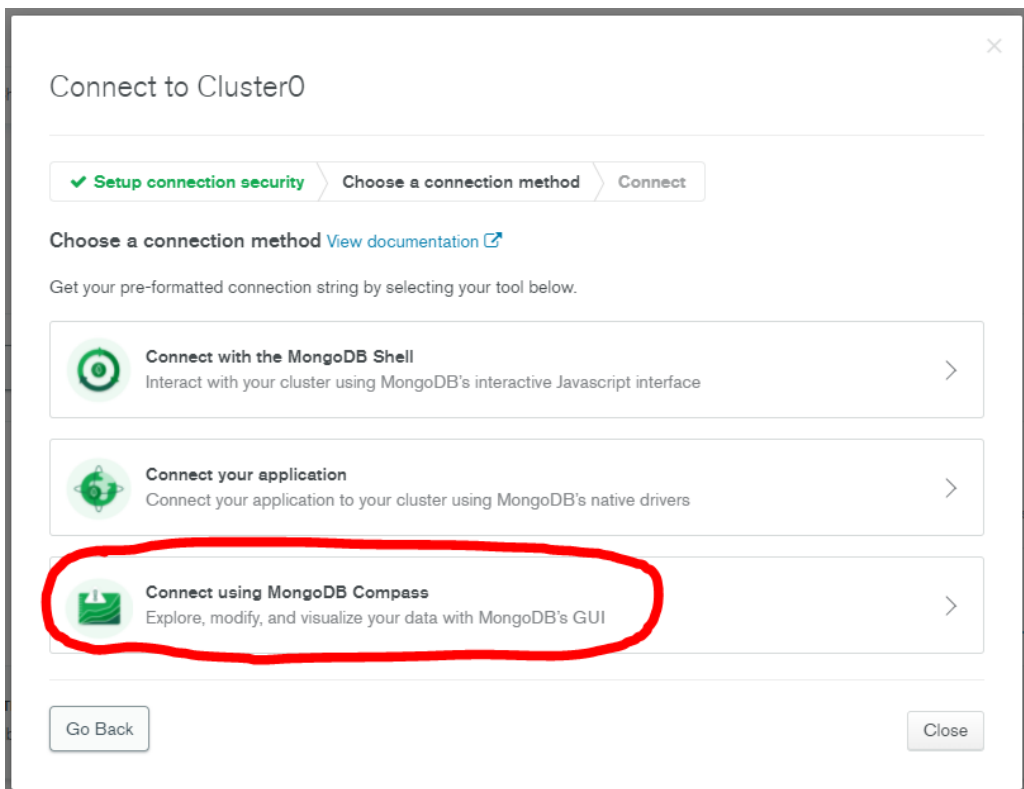
Add Specific Privilege

Una vez creado el usuario, vamos a conectarnos a nuestra base de datos desde Compass. Para ello, nos vamos a nuestras bases de datos, y le damos a connect:



The screenshot shows the MongoDB Atlas console for a cluster named 'Cluster0'. At the top, there are buttons for 'Connect', 'View Monitoring', 'Browse Collections', and a menu icon. The 'Connect' button is circled in red. Below the buttons, there are two line graphs: one for 'R 0' (Read operations) and one for 'W 0' (Write operations), both showing 'Last 6 minutes' data. To the right, there is a 'Connections' graph showing a steady increase from 8.0 to 8.0. Below the graphs, there is a table with the following data:

VERSION	REGION	CLUSTER TIER	TYPE	BACKUPS
4.4.12	AWS / Paris (eu-west-3)	M0 Sandbox (General)	Replica Set - 3 nodes	Inactive



The screenshot shows the 'Connect to Cluster0' dialog box. It has a progress bar with three steps: 'Setup connection security' (completed), 'Choose a connection method' (current), and 'Connect'. Below the progress bar, there is a section titled 'Choose a connection method' with a link to 'View documentation'. The text says: 'Get your pre-formatted connection string by selecting your tool below.' There are three options listed:

- Connect with the MongoDB Shell: Interact with your cluster using MongoDB's interactive Javascript interface
- Connect your application: Connect your application to your cluster using MongoDB's native drivers
- Connect using MongoDB Compass: Explore, modify, and visualize your data with MongoDB's GUI

The 'Connect using MongoDB Compass' option is circled in red. At the bottom, there are 'Go Back' and 'Close' buttons.

Elegimos MongoDB Compass y nos saldrá la siguiente ventana:

Cogemos el enlace y lo copiamos en nuestro Compass:

The screenshot shows the 'Connect to Cluster0' dialog in MongoDB Compass. It has a close button (X) in the top right. Below the title, there are three steps: 'Setup connection security' (checked), 'Choose a connection method' (checked), and 'Connect'. Under 'Choose a connection method', there are two buttons: 'I do not have MongoDB Compass' and 'I have MongoDB Compass' (which is highlighted with a green border). Step 1, 'Choose your version of Compass:', has a dropdown menu set to '1.12 or later' and a link to 'See your Compass version in "About Compass"'. Step 2, 'Copy the connection string, then open MongoDB Compass.', shows a text box with the connection string: `mongodb+srv://franbuiper:<password>@cluster0.if9bw.mongodb.net/test`. Below the text box, it says: 'You will be prompted for the password for the **franbuiper** user's (Database User) username. When entering your password, make sure that any special characters are [URL encoded](#).' There is a copy icon to the right of the text box.

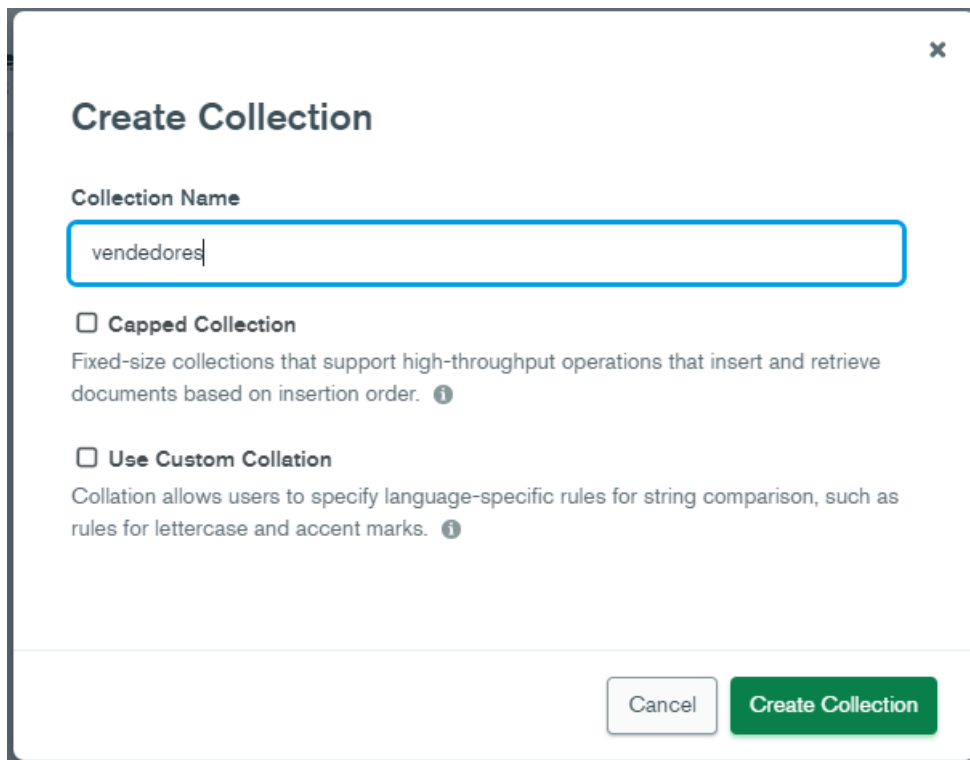
The screenshot shows the 'New Connection' dialog in MongoDB Compass. It has a 'FAVORITE' button with a star icon. Below the title, it says 'Fill in connection fields individually'. There is a section 'Paste your connection string (SRV or Standard)' with an information icon. Below this is a text box containing the connection string: `mongodb+srv://franbuiper:<password>@cluster0.if9bw.mongodb.net/ventas`. To the right of the text box is a green 'Connect' button, which is circled in red.

Pegamos el enlace, cambiamos el <password> por nuestra contraseña y le damos a Connect:

The screenshot shows the MongoDB Compass interface after a successful connection. At the top, there is a 'Create database' button, a 'View' button, and a 'Sort by' dropdown menu set to 'Database Name'. Below this, there is a table with one row: 'ventas'. The table has three columns: 'Storage size:', 'Collections:', and 'Indexes:'. The values for 'ventas' are: '4.10 kB', '1', and '1' respectively.

Como podemos ver, nos hemos podido conectar correctamente.

Ya podemos crear colecciones e introducir información desde nuestro Compass hasta la nube:



Create Collection

Collection Name

vendedores

☐ Capped Collection

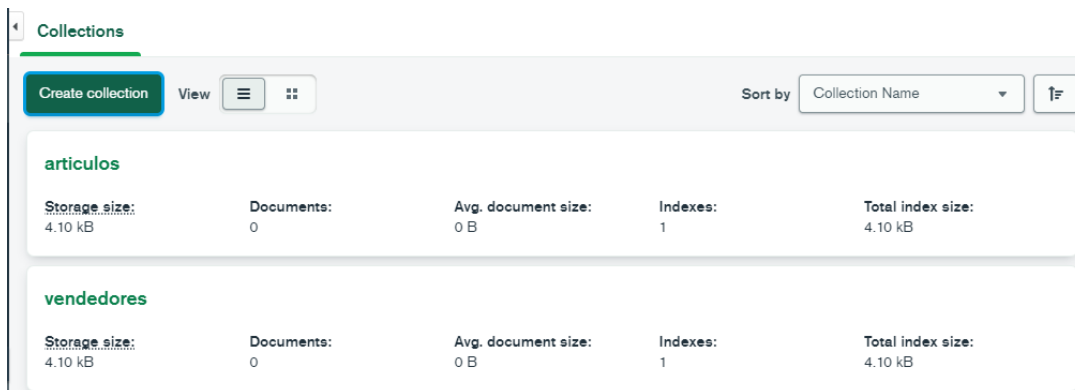
Fixed-size collections that support high-throughput operations that insert and retrieve documents based on insertion order. ⓘ

☐ Use Custom Collation

Collation allows users to specify language-specific rules for string comparison, such as rules for lettercase and accent marks. ⓘ

Cancel Create Collection

Podemos ver como se crea tanto en el Compass como en la nube:



Collection Name	Storage size	Documents	Avg. document size	Indexes	Total index size
articulos	4.10 kB	0	0 B	1	4.10 kB
vendedores	4.10 kB	0	0 B	1	4.10 kB

Cluster0

Overview

Real Time

Me

DATABASES: 1 COLLECTIONS: 2

+ Create Database

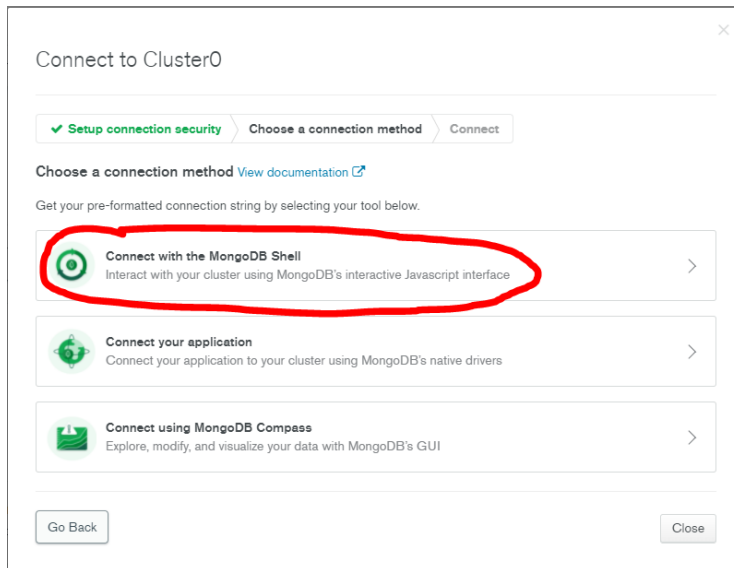
Q NAMESPACES

▼ ventas

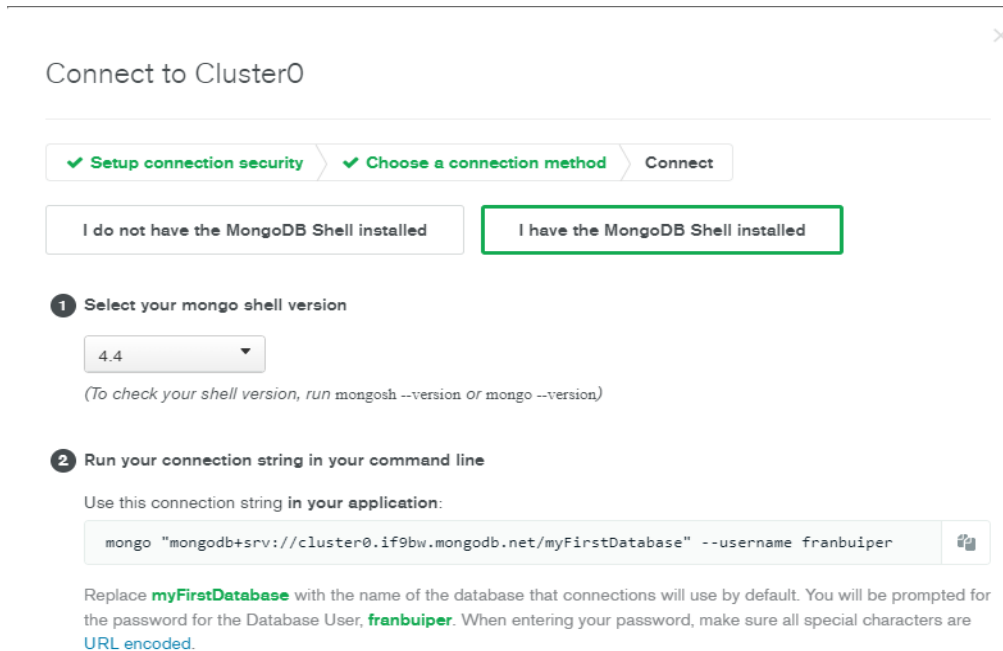
articulos

vendedores

Ahora vamos a ver otra forma de conectarnos. Vamos a conectarnos desde la Shell:



Copiamos el siguiente comando:



Ahora tenemos que entrar en la powershell y ejecutar el comando que hemos copiado. Antes de copiarlo, debemos cambiar la base de datos a la que nos queremos conectar:

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

PS C:\Users\Francisco> mongo "mongodb+srv://cluster0.if9bw.mongodb.net/ventas" --username franbuiper
MongoDB shell version v5.0.5
Enter password:
connecting to: mongodb://cluster0-shard-00-02.if9bw.mongodb.net:27017,cluster0-shard-00-00.if9bw.mongodb.net:27017,cluster0-shard-00-01.if9bw.mongodb.net:27017/ventas?authSource=admin&compressors=disabled&gssapiServiceName=mongodb&replicaSet=atlas-tadvds-shard-0&ssl=true
Implicit session: session { "id" : UUID("002f57f1-e5e9-4f85-ae73-e5250074dbf4") }
MongoDB server version: 4.4.12
WARNING: shell and server versions do not match
=====
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.
For installation instructions, see
https://docs.mongodb.com/mongodb-shell/install/
=====
WARNING: some history file lines were truncated at 4095 bytes.
MongoDB Enterprise atlas-tadvds-shard-0:PRIMARY>
```

Ya estamos dentro de la consola de Mongo en la nube. Todo lo que hagamos se realizará en la nube.

Vamos a ver algunos comandos de ejemplo:

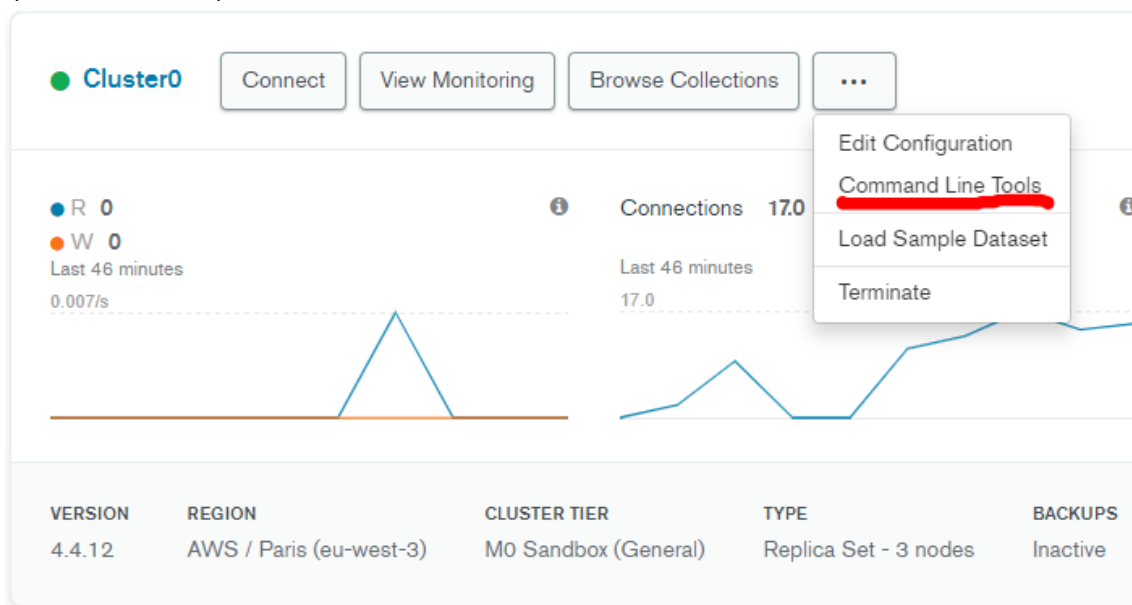
```
MongoDB Enterprise atlas-tadvds-shard-0:PRIMARY> use ventas
switched to db ventas
MongoDB Enterprise atlas-tadvds-shard-0:PRIMARY> show collections
articulos
vendedores
MongoDB Enterprise atlas-tadvds-shard-0:PRIMARY>
```

Como podemos ver, salen nuestras colecciones.

Ya podemos hacer inserts, consultas, etc, dentro de nuestra base de datos ventas.

4. Importar / Exportar bases de datos a nuestro MongoAtlas

Vamos a importar una base de datos que tengamos a nuestro Mongo Atlas. Podemos ver los comandos que necesitamos aquí:



Data Import and Export Tools

Replace **PASSWORD** with the password for the admin user, **DATABASE** with the name of the database you wish to import/export to your cluster, and **COLLECTION** with the name of the collection you wish to import/export to your cluster. Replace **FILETYPE** with "json" or "csv" to specify the file type. Where applicable, replace **FILENAME** with the location and name of the output file (for export) or data source (for import).

NOTE: When exporting or importing CSV data, an additional `--fields` flag is often required. See documentation for the specific tool for additional details.

[mongoimport](#) | imports content from an Extended JSON, CSV, or TSV export

```
mongoimport --uri mongodb+srv://admin:<PASSWORD>@cluster0.if9bw.mongodb.net/<DATABASE>
> --collection <COLLECTION> --type <FILETYPE> --file <FILENAME>
```

[mongoexport](#) | produces a JSON or CSV export of data stored in a MongoDB instance

```
mongoexport --uri mongodb+srv://admin:<PASSWORD>@cluster0.if9bw.mongodb.net/<DATABASE>
> --collection <COLLECTION> --type <FILETYPE> --out <FILENAME>
```

Para esta tarea, voy a crear un usuario admin, con todos los privilegios, igual que hemos creado el anterior usuario.

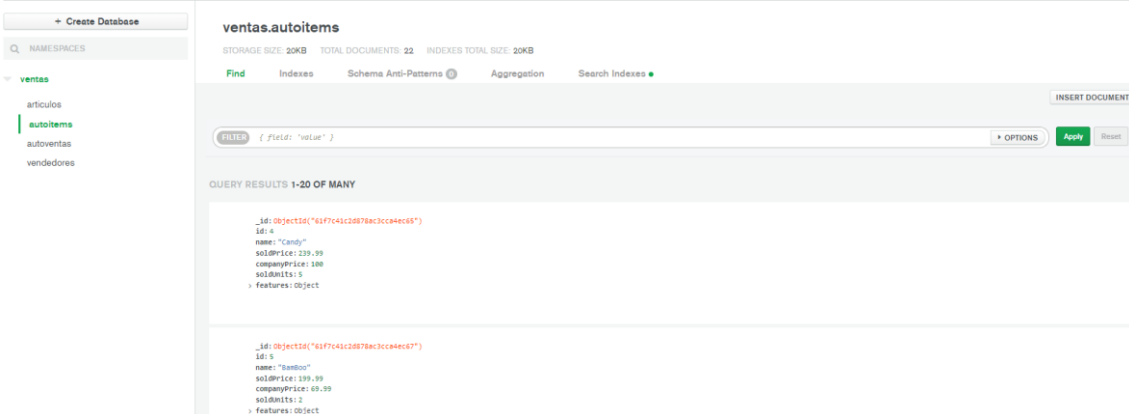
Primero voy a exportar las colecciones locales que tengo en mi MongoDB:

```
PS C:\Users\Francisco> mongoexport --collection=autoitems --out=c:\users\Francisco\Desktop\autoitems.json
2022-02-10T09:39:02.846+0100    connected to: mongodb://localhost/
2022-02-10T09:39:02.876+0100    exported 22 records
PS C:\Users\Francisco> mongoexport --collection=autoventas --out=c:\users\Francisco\Desktop\autoventas.json
2022-02-10T09:39:50.260+0100    connected to: mongodb://localhost/
2022-02-10T09:39:50.300+0100    exported 10 records
PS C:\Users\Francisco>
```

Una vez exportadas, las voy a importar al Mongo Atlas con los siguientes comandos:

```
PS C:\Users\Francisco> mongoimport --uri mongodb+srv://admin:admin@cluster0.if9bw.mongodb.net/ventas --collection
autoitems --type=json --file c:\users\Francisco\Desktop\autoitems.json
2022-02-10T09:43:07.124+0100    connected to: mongodb+srv://[**REDACTED**]@cluster0.if9bw.mongodb.net/ventas
2022-02-10T09:43:07.295+0100    22 document(s) imported successfully. 0 document(s) failed to import.
PS C:\Users\Francisco> mongoimport --uri mongodb+srv://admin:admin@cluster0.if9bw.mongodb.net/ventas --collection
autoventas --type=json --file c:\users\Francisco\Desktop\autoventas.json
2022-02-10T09:43:23.578+0100    connected to: mongodb+srv://[**REDACTED**]@cluster0.if9bw.mongodb.net/ventas
2022-02-10T09:43:23.719+0100    10 document(s) imported successfully. 0 document(s) failed to import.
PS C:\Users\Francisco>
```

Ahora vamos a meternos en el Atlas para comprobar que todo ha salido bien:



The screenshot shows the MongoDB Atlas web interface. On the left, a sidebar lists the database 'ventas' and its collections: 'articulos', 'autoitems' (highlighted), 'autoventas', and 'vendedores'. The main panel displays the 'ventas.autoitems' collection. At the top, it shows 'STORAGE SIZE: 20KB', 'TOTAL DOCUMENTS: 22', and 'INDEXES TOTAL SIZE: 20KB'. Below this, there are tabs for 'Find', 'Indexes', 'Schema', 'Anti-Patterns', 'Aggregation', and 'Search Indexes'. The 'Find' tab is active, showing a filter bar with the query '{ field: "value" }'. Below the filter, it says 'QUERY RESULTS 1-20 OF MANY'. Two document snippets are visible, each with fields like '_id', 'name', 'soldPrice', 'companyPrice', 'soldUnits', and 'features'.

Como podemos ver, se nos han creado las dos colecciones nuevas, con su respectiva información.