

3 Desplegar un cluster Atlas

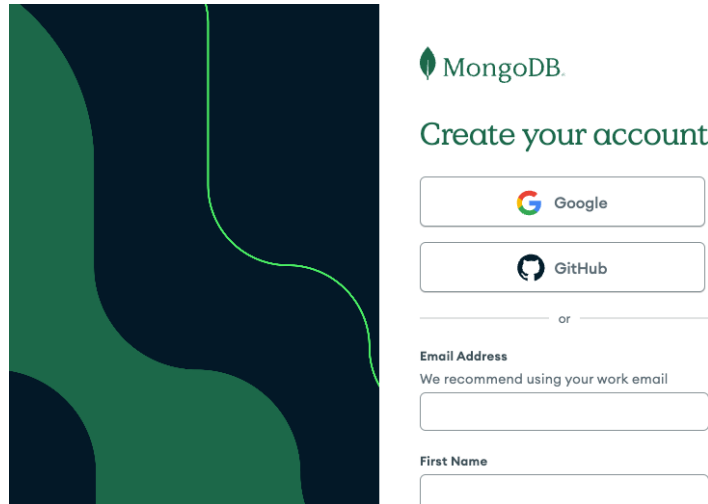
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networks



Cluster MongoDB Atlas


Creación de cuenta en Atlas


<https://account.mongodb.com/>



MongoDB

Create your account

 Google

 GitHub

or

Email Address
We recommend using your work email

First Name



Cluster MongoDB Atlas

Selección de cluster

Deploy a cloud database

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

Serverless

For application development and testing, or workloads 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
\$0.10/1M 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

Cluster MongoDB Atlas

Selección de proveedor cloud

Serverless

Dedicated

FREE Shared

For learning and exploring MongoDB in a sandbox environment. Basic configuration controls.

No credit card required to start. Upgrade to dedicated clusters for full functionality. Explore with sample datasets. Limit of one free cluster per project.

Cloud Provider & Region

AWS, Paris (eu-west-3)

aws

Google Cloud

Azure

★ Recommended region ⓘ

📦 Dedicated tier region ⓘ

NORTH AMERICA

🇺🇸 Oregon (us-west-2) ★

🇺🇸 N. Virginia (us-east-1) ★

🇺🇸 Ohio (us-east-2) ★ 📦

🇺🇸 N. California (us-west-1) 📦

EUROPE

🇫🇷 Paris (eu-west-3) ★

🇩🇪 Frankfurt (eu-central-1)


🇮🇪 Ireland (eu-west-1) ★

AUSTRALIA

🇦🇺 Sydney (ap-southeast-2) ★

🇭🇰 Hong Kong (ap-east-1) ★

🇸🇬 Singapore (ap-southeast-1) ★

 **mongoDB**®

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Cluster MongoDB Atlas

Selección de opciones y despliegue

Cluster Tier

M0 Sandbox (Shared RAM, 512 MB Storage)
Encrypted

Additional Settings

MongoDB 5.0, No Backup

Cluster Name

ClusterTest

One time only: once your cluster is created, you won't be able to change its name.

ClusterTest

Cluster names can only contain ASCII letters, numbers, and hyphens.

FREE

Free forever! Your M0 cluster is ideal for experimenting in a limited sandbox. You can upgrade to a production cluster anytime.

[Back](#)

Create Cluster



Cluster MongoDB Atlas

Autenticación de conexiones vía usuario

ITWEBLEARNING > PROJECT 0

Security Quickstart

To access data stored in Atlas, you'll need to create users and set up network security controls. [Learn more about security setup](#)

✓ How would you like to authenticate your connection?

Your first user will have permission to read and write any data in your project.

Username and Password

Certificate

Create a database user using a username and password. Users will be given the *read and write to any database privilege* by default. You can update these permissions and/or create additional users later. Ensure these credentials are different to your MongoDB Cloud username and password. You can manage existing users via the [Database Access Page](#).

Username

tenantadmin

Password

pOUtQGOfCOUqDGK

Autogenerate Secure Password

Copy

Create User



Cluster MongoDB Atlas

”Whitelist” de conexiones entrantes al cluster

✓ Where would you like to connect from?

Enable access for any network(s) that need to read and write data to your cluster.

My Local Environment
Use this to add network IP addresses to the IP Access List. This can be modified at any time.

Cloud Environment
Use this to configure network access between Atlas and your cloud or on-premise environment. Specifically, set up IP Access Lists, Network Peering, and Private Endpoints.

ADVANCED

Add entries to your IP Access List

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	
159.147.204.149/32	My IP Address	<input type="button" value="REMOVE"/>



Cluster MongoDB Atlas

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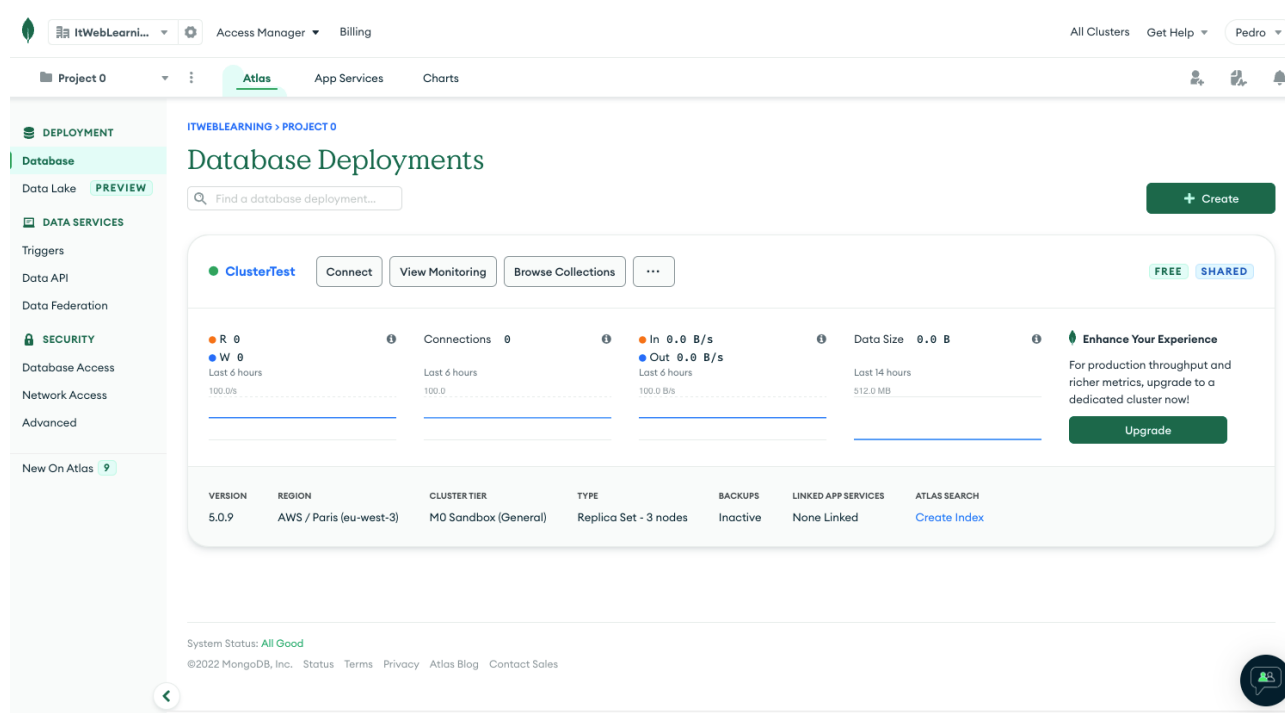
[Back](#)

Create Cluster



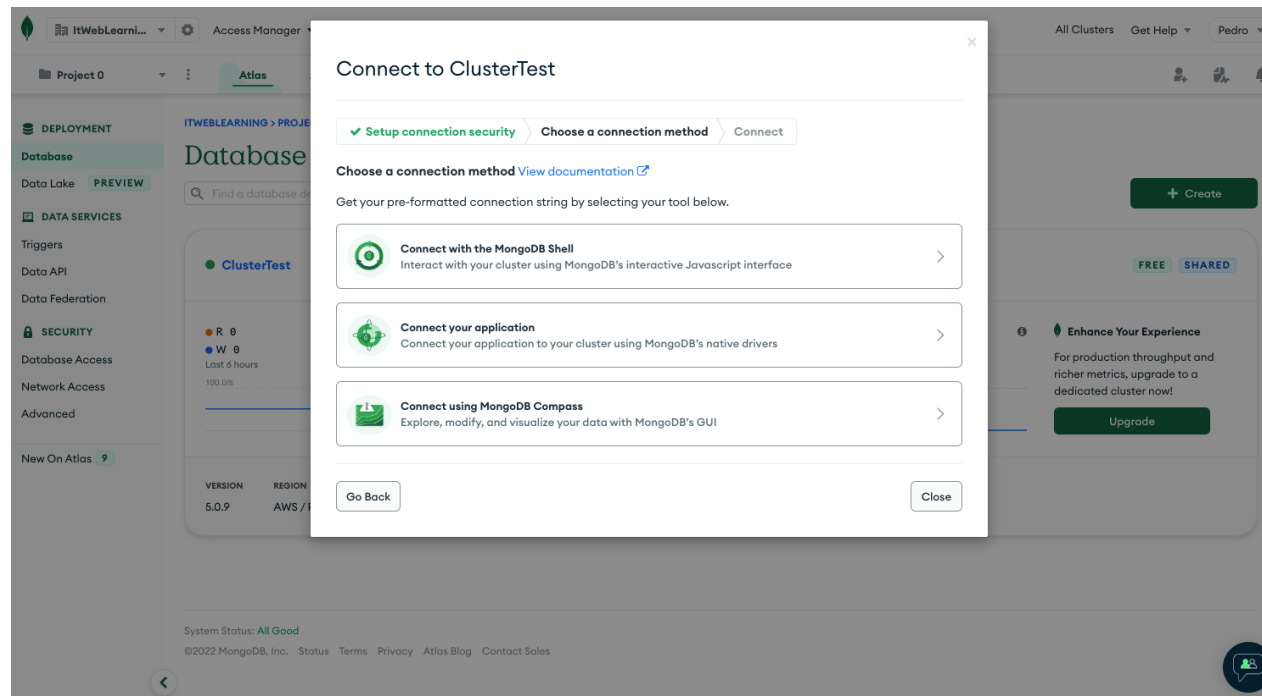
Cluster MongoDB Atlas

Una vez finalizado el proyecto tendremos el cluster disponible, organizado a nivel de “proyecto”.



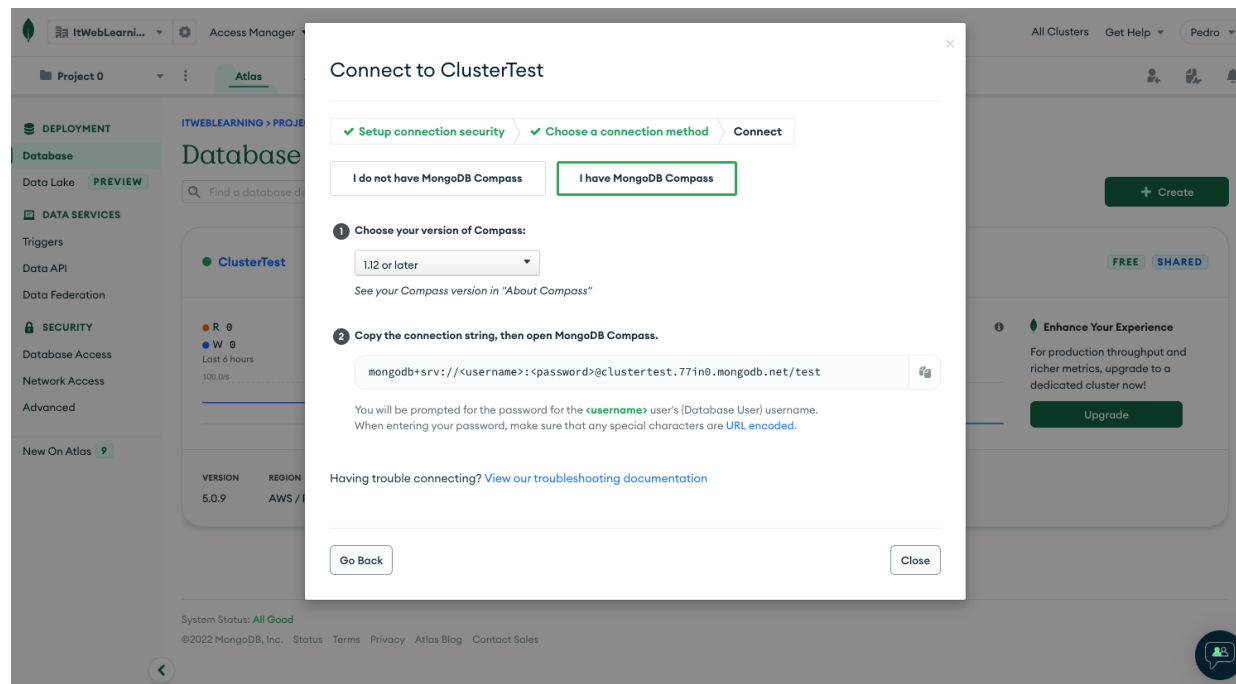
Conexión al cluster con MongoDB Compass

El cluster proporciona múltiples formas de conexión



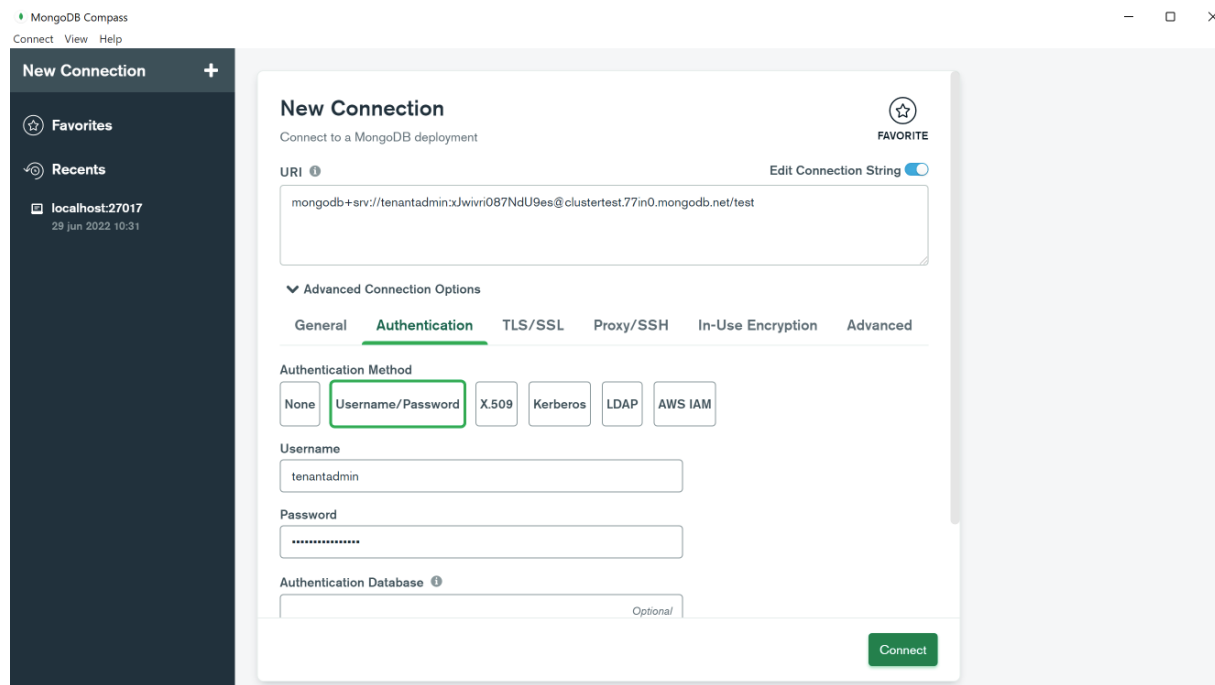
Conexión al cluster con MongoDB Compass

Para MongoDB Compass proporciona directamente la URI



Conexión al cluster con MongoDB Compass

En MongoCompass se añade la URI con los datos de autenticación



The screenshot shows the 'New Connection' dialog in MongoDB Compass. The 'Authentication' tab is selected, and the 'Username/Password' method is chosen. The URI field contains a connection string with authentication details. The 'Connect' button is visible at the bottom right.

MongoDB Compass
Connect View Help

New Connection +

Favorites

Recents

localhost:27017
29 Jun 2022 10:31

New Connection FAVORITE

Connect to a MongoDB deployment

URI ⓘ Edit Connection String ☒

mongodb+srv://tenantadmin:Jwivn087NdU9es@clustertest.77in0.mongodb.net/test

▼ Advanced Connection Options

General **Authentication** TLS/SSL Proxy/SSH In-Use Encryption Advanced

Authentication Method

Username

tenantadmin

Password

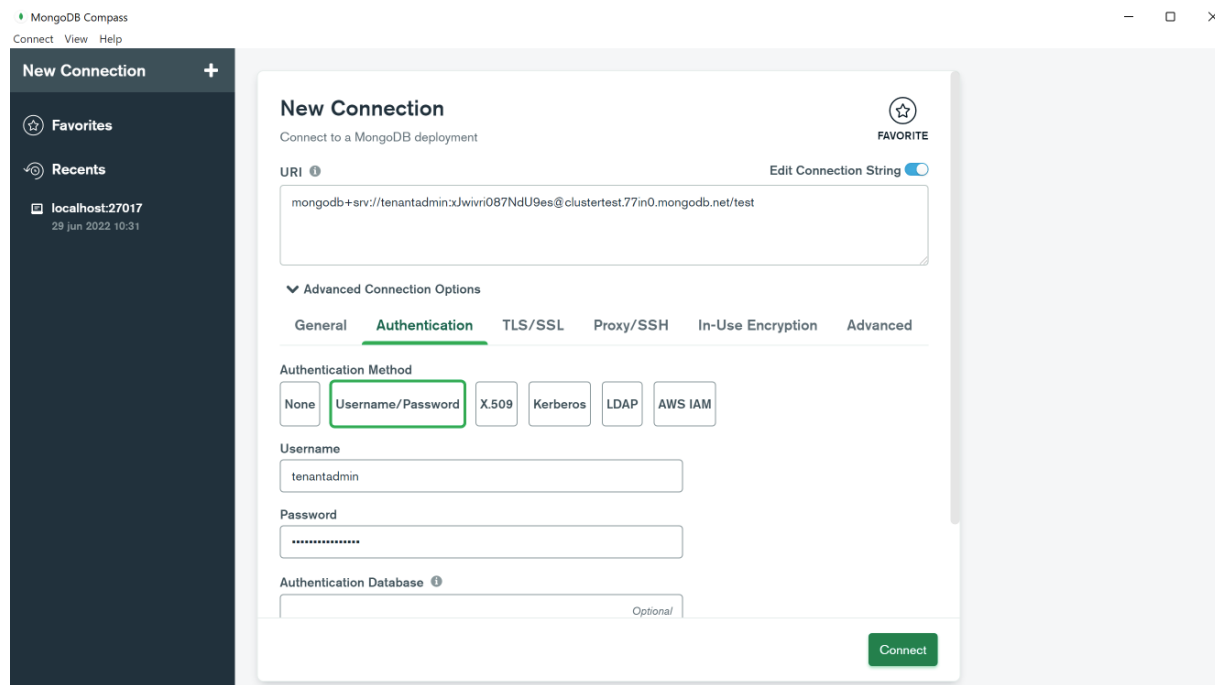
.....

Authentication Database ⓘ

Optional

Conexión al cluster con MongoDB Compass

En MongoCompass se añade la URI con los datos de autenticación



The screenshot shows the 'New Connection' dialog in MongoDB Compass. The 'Authentication' tab is selected, and the 'Username/Password' authentication method is chosen. The URI field contains the connection string: `mongodb+srv://tenantadmin:Jwivn087NdU9es@clustertest.77in0.mongodb.net/test`. The Username field is filled with 'tenantadmin' and the Password field is masked with dots. The Authentication Database field is empty and marked as optional. A green 'Connect' button is at the bottom right.

MongoDB Compass

Connect View Help

New Connection +

Favorites

Recents

localhost:27017
29 Jun 2022 10:31

New Connection

Connect to a MongoDB deployment

FAVORITE

URI ⓘ Edit Connection String ☒

mongodb+srv://tenantadmin:Jwivn087NdU9es@clustertest.77in0.mongodb.net/test

Advanced Connection Options

General Authentication TLS/SSL Proxy/SSH In-Use Encryption Advanced

Authentication Method

None Username/Password X.509 Kerberos LDAP AWS IAM

Username

tenantadmin

Password

.....

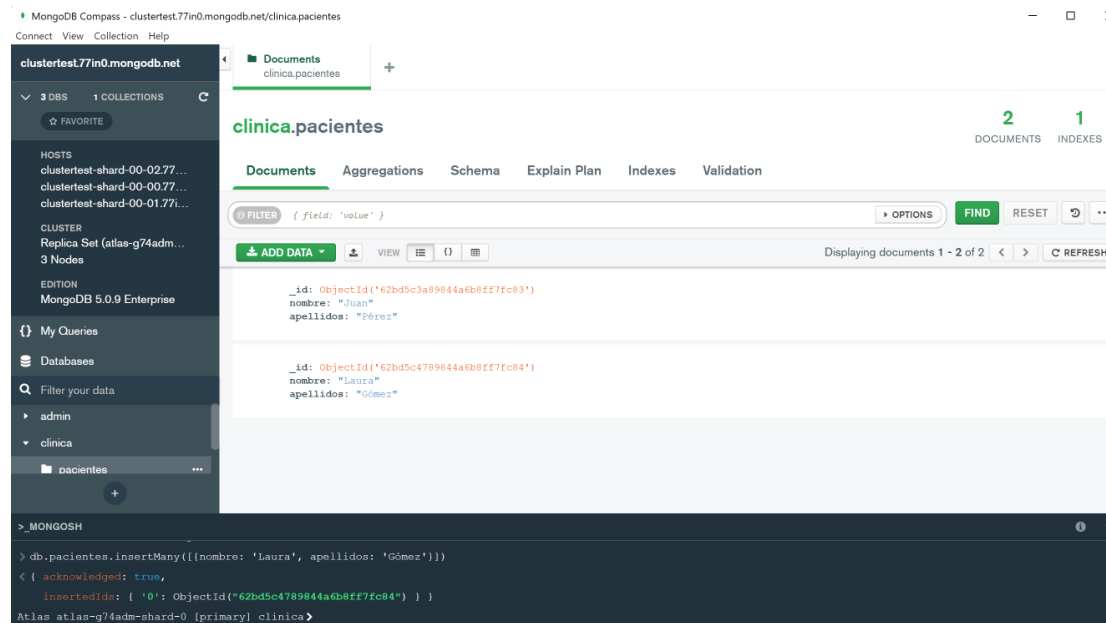
Authentication Database ⓘ

Optional

Connect

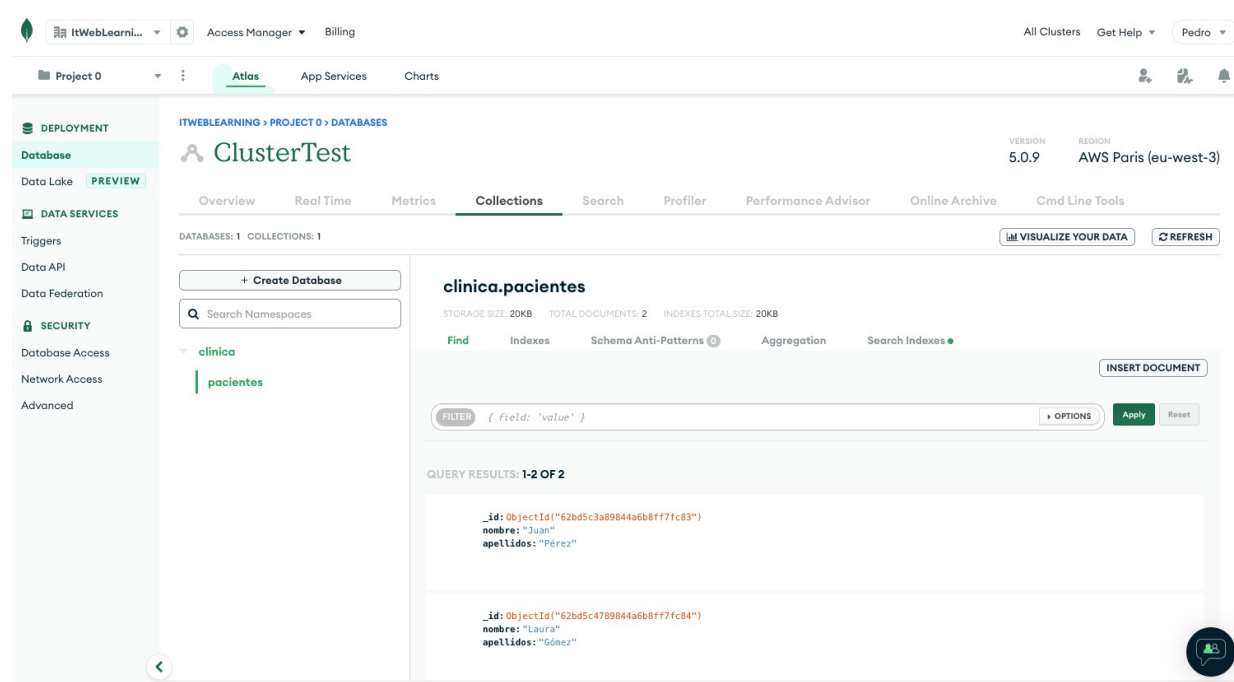
Conexión al cluster con MongoDB Compass

Una vez conectados se trabaja de la misma forma que con un cluster on premise



Browse collections en la consola Atlas

Atlas también permite trabajar directamente con los datos de las bases de datos y colecciones directamente desde la consola.



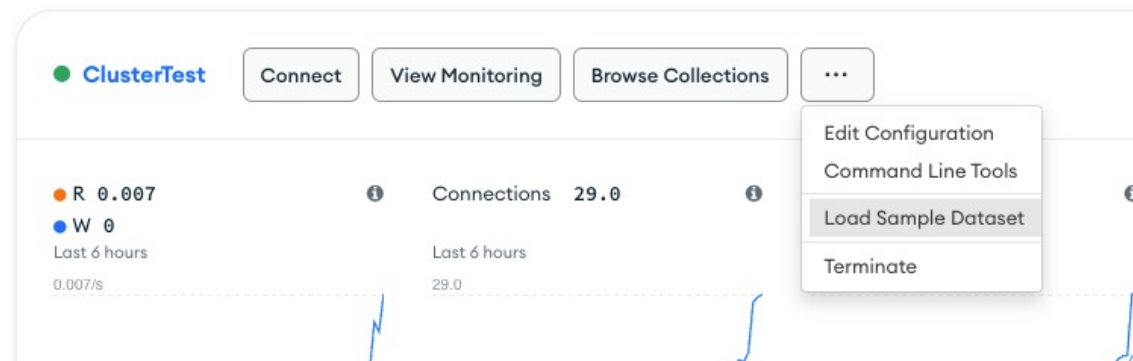
Datos de ejemplo

Atlas dispone de datos de ejemplo para cargar en el cluster

ITWEBLEARNING > PROJECT 0

Database Deployments

Find a database deployment...



Índices

MongoDB dispone de los siguientes tipos

- Simples (un solo campo)
- Compuestos (compuestos)
- Únicos (anteriores para valores únicos de campo)
- Multikey (en campos de tipo array)
- Texto
- Wildcard
- Geo
- Hashed



Aggregation en MongoDB

<https://www.mongodb.com/docs/manual/aggregation/>

Pipe de etapas de transformación de datos que se ejecuta en memoria

```
db.<coleccion>.aggregate(  
  [  
    {etapa1} // empleo de operadores de aggregation  
    {etapa2},  
    ...  
  ], {allowDiskUse: true} // opciones  
)
```



Aggregation en MongoDB

Etapas

...

`{$operatorEtapa: {$operator, $operator, ...}}`

...

- Tendremos un resultado final al concluir el pipe que se puede o bien devolver en la operación que solicita la agregación o bien se puede escribir en una colección diferente.
- Mantiene inmutable la colección.

Aggregation en MongoDB

\$lookup permite realizar un determinado tipo de join en MongoDB (left outer)

```
{ $lookup: {  
    from: <colección-externa>,  
    localField: <campo-de-la-coleccion>  
    foreignField: <campo-de-la-colección-externa>  
    as: <nombre del campo de salida (array)>  
}}
```

Gracias por tu atención

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