

Activitat 2 (Connexió Java-Mongodb)



Marc Miquel
2n DAM

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1. Disseny de la BBDD

El nom de la col·lecció de la meua base de dades es: reserves

Aquesta col·lecció emmagatzema les reserves fetes pels clients.

Camps:

- _id: ObjectId
- dataReserva: Date → Servira per ordenar les reserves
- clientNom: String → Es el nom del client que fa la reserva
- restaurantNom: String → Es el nom del restaurant on es fa la reserva
- nombrePersones: Number → Nombre de persones de la reserva
- estat: String (confirmada, cancel·lada, pendent) → Estat de la reserva

El disseny de la base de dades és el següent:

```
{  
  "_id": ObjectId,  
  "dataReserva": Date,  
  "clientNom": String,  
  "restaurantNom": String,  
  "nombrePersones": Number,  
  "estat": String  
}
```

2. CREACIÓ DE LA BBDD

He creat la bbdd amb el nom de gestioRestaurants i la col·lecció reserves, tot seguit he importat el fitxer .json que he generat amb els 25 registres, tot aquest procés és idèntic al que he fet a la tasca 1.

cluster0.7bfaucb.mongodb.net > gestioRestaurants > reserves [Open MongoDB shell](#)

Documents 25 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#) [Explain](#) [Reset](#) [Find](#) [Options](#)

[ADD DATA](#) [EXPORT DATA](#) [UPDATE](#) [DELETE](#) 25 1 - 25 of 25

```
_id: ObjectId('6963de68c158d0a848f45a48')
dataReserva: 2024-12-01T19:00:00.000+00:00
clientNom: "Anna"
restaurantNom: "El Racó"
nombrePersones: 2
estat: "confirmada"
```

```
_id: ObjectId('6963de68c158d0a848f45a49')
dataReserva: 2024-12-02T20:00:00.000+00:00
clientNom: "Marc"
restaurantNom: "La Piazza"
nombrePersones: 4
estat: "pendent"
```

```
_id: ObjectId('6963de68c158d0a848f45a4a')
dataReserva: 2024-12-03T21:00:00.000+00:00
clientNom: "Laura"
restaurantNom: "Can Toni"
nombrePersones: 3
estat: "confirmada"
```

```
_id: ObjectId('6963de68c158d0a848f45a4b')
dataReserva: 2024-12-04T19:30:00.000+00:00
clientNom: "Jordi"
```

Per accedir des de la línia d'ordres (mongosh) i fer algunes consultes hem d'anar en el Atlas, ens tornem a dirigir al botó de connect i escollim l'opció de "shell"

Connect to Cluster0

Set up connection security Choose a connection method Connect

Connect to your application

Drivers
Access your Atlas data using MongoDB's native drivers (e.g. Node.js, Go, etc.)

Access your data through tools

Compass
Explore, modify, and visualize your data with MongoDB's GUI

Shell
Quickly add & update data using MongoDB's Javascript command-line interface

MongoDB for VS Code
Work with your data in MongoDB directly from your VS Code environment

Atlas SQL
Easily connect SQL tools to Atlas for data analysis and visualization

En el meu cas ja el tinc instal·lat així que selecciono el camp i copio l'enllaç.

Connect to Cluster0

Set up connection security Choose a connection method Connect

I don't have the MongoDB Shell installed I have the MongoDB Shell installed

1. Select your mongo shell version

To check your Mongo shell version, run:
mongosh --version or mongo --version

mongosh (2.0 or later)

2. Run your connection string in your command line

Use this connection string in your application

```
mongosh "mongodb+srv://cluster0.7bfaucb.mongodb.net/" --apiVersion 1 --username marc
```

You will be prompted for the password for the Database User, **marc**. When entering your password, make sure all special characters are [URL encoded](#).

RESOURCES

[Add Data in the Shell](#) [Access your Database Users](#)
[Troubleshoot Connections](#)

Go Back Done

Ara hem d'anar a la cmd del sistema i enganxar l'enllaç. Ens demanara una contrasenya.

```
Microsoft Windows [Versión 10.0.19045.5854]
(c) Microsoft Corporation. Todos los derechos reservados.

C:\Users\User>mongosh "mongodb+srv://cluster0.7bfaucb.mongodb.net/" --apiVersion 1 --username marc
Enter password: ****
Current Mongosh Log ID: 69651d6e4cb644b9761e2620
Connecting to:      mongodb+srv://<credentials>@cluster0.7bfaucb.mongodb.net/?appName=mongosh+2.5.10
Using MongoDB:      8.0.17 (API Version 1)
Using Mongosh:      2.5.10

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

To help improve our products, anonymous usage data is collected and sent to MongoDB periodically (https://www.mongodb.com/legal/privacy-policy).
You can opt-out by running the disableTelemetry() command.

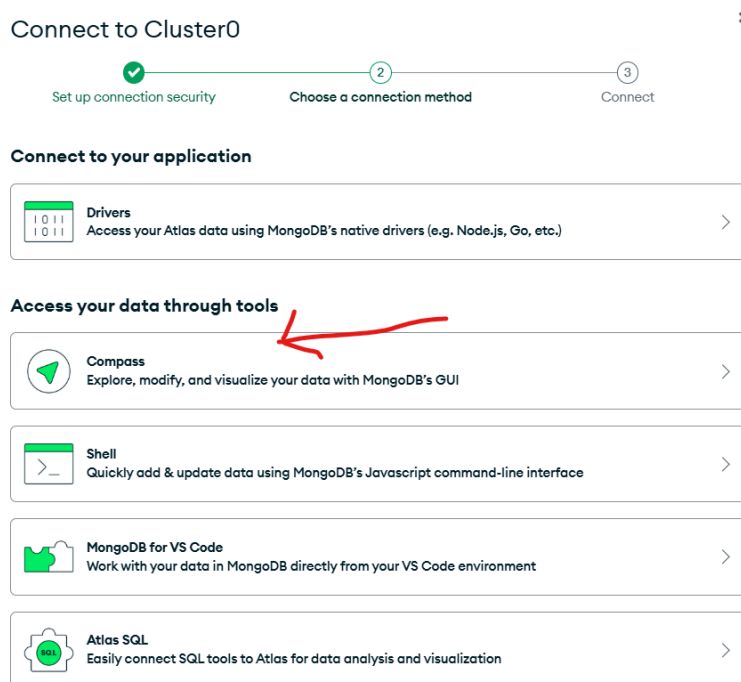
Atlas atlas-syjn7s-shard-0 [primary] test>
```

Aquí deixo unes consultes en línia de comandes

```
Atlas atlas-syjn7s-shard-0 [primary] test> use gestioRestaurants
switched to db gestioRestaurants
Atlas atlas-syjn7s-shard-0 [primary] gestioRestaurants> db.reserves.find()
[
  {
    _id: ObjectId('6963de68c158d0a848f45a52'),
    dataReserva: ISODate('2024-12-11T20:00:00.000Z'),
    clientNom: 'Eva',
    restaurantNom: 'La Piazza',
    nombrePersones: 4,
    estat: 'confirmada'
  },
  {
    _id: ObjectId('6963de68c158d0a848f45a53'),
    dataReserva: ISODate('2024-12-12T21:00:00.000Z'),
    clientNom: 'Pol',
    restaurantNom: 'Can Toni',
    nombrePersones: 2,
    estat: 'confirmada'
  },
  {
    _id: ObjectId('6963de68c158d0a848f45a59'),
    dataReserva: ISODate('2024-12-18T21:30:00.000Z'),
    clientNom: 'Albert',
    restaurantNom: 'Can Toni',
    nombrePersones: 3,
  }
]
```

```
Type "it" for more
Atlas atlas-syjn7s-shard-0 [primary] gestioRestaurants> db.reserves.find({ restaurantNom: "El Racó" })
[
  {
    _id: ObjectId('6963de68c158d0a848f45a60'),
    dataReserva: ISODate('2024-12-25T20:30:00.000Z'),
    clientNom: 'Joel',
    restaurantNom: 'El Racó',
    nombrePersones: 5,
    estat: 'confirmada'
  },
  {
    _id: ObjectId('6963de68c158d0a848f45a4e'),
    dataReserva: ISODate('2024-12-07T19:00:00.000Z'),
    clientNom: 'Clara',
    restaurantNom: 'El Racó',
    nombrePersones: 4,
    estat: 'confirmada'
  },
  {
    _id: ObjectId('6963de68c158d0a848f45a51'),
    dataReserva: ISODate('2024-12-10T19:30:00.000Z'),
    clientNom: 'Oriol',
  }
]
```

Per accedir des del Compass ho farem bastant similar que com ho he fet per la línia de comandes, en el cluster anirem al botó de connect i seleccionarem l'opció de Compass.



En el meu cas com que ja tinc el Compass en el meu ordinador selecciono l'opció de la dreta, després copio l'enllaç.

Connect to Cluster0

✓

✓

3

Set up connection security

Choose a connection method

Connect

Connecting with MongoDB Compass

I don't have MongoDB Compass installed

I have MongoDB Compass installed

1. Choose your version of Compass

1.38 or later

See your Compass version in "About Compass"

2. Copy the connection string, then open MongoDB Compass

Use this connection string in your application

mongodb+srv://marc:<db_password>@cluster0.7bfaucb.mongodb.net/

Replace <db_password> with the password for the marc user. Ensure any options are URL encoded. You can edit your database user password in Database Access.

RESOURCES

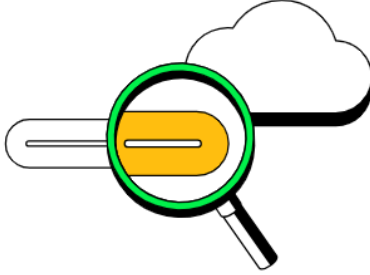
Connect with Compass

Access your Database Users

Import and Export Data

Troubleshoot Connections

Ara anem al Compass, hem de crear una nova conexcio



Welcome to MongoDB Compass

To get started, connect to an existing server or

+ Add new connection

New to Compass and don't have a cluster?

If you don't already have a cluster, you can create one for free using MongoDB Atlas

CREATE FREE CLUSTER

Cliquem al botó i enganxem l'enllaç, hem de modificar l'enllaç i posar la contrasenya que tinguem, després cliquem al botó verd, save & connect

New Connection

Manage your connection settings

URI ⓘ

Edit Connection String 

mongodb+srv://marc:****@cluster0.7bfaucb.mongodb.net/

Name

cluster0.7bfaucb.mongodb.net

Color

No Color

☐ Favorite this connection

Favoriting a connection will pin it to the top of your list of connections

> Advanced Connection Options

How do I find my connection string in Atlas?

If you have an Atlas cluster, go to the Cluster view. Click the 'Connect' button for the cluster to which you wish to connect. [See example](#)

How do I format my connection string?

[See example](#)

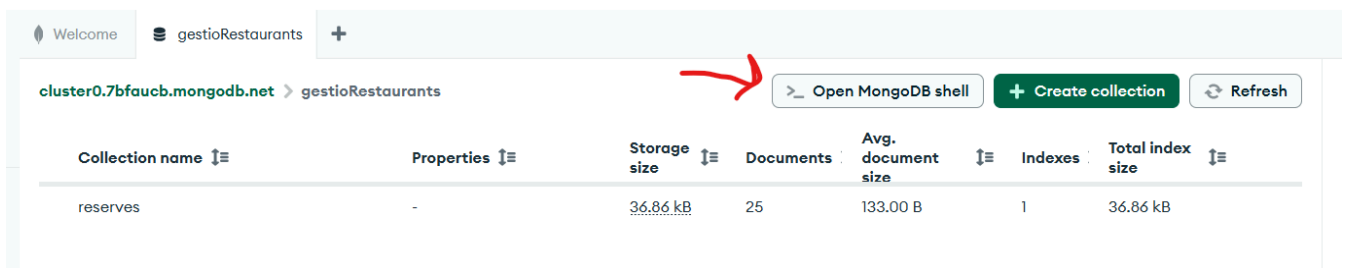
Cancel

Save

Connect

Save & Connect

Ara ja estem dintre del Compass, per fer consultes tenim que anar a la base de dades i obrir el MongoDB Shell



cluster0.7bfaucb.mongodb.net > gestioRestaurants

> Open MongoDB shell + Create collection Refresh

Collection name	Properties	Storage size	Documents	Avg. document size	Indexes	Total index size
reserves	-	36.86 kB	25	133.00 B	1	36.86 kB

Aquí deixo unes consultes.

```
> db.Entrades.find({
  nomAlumne: "Laura",
  completa: true
})
< {
  _id: ObjectId('695d24f48d4456fc539d1985'),
  nomAlumne: 'Laura',
  cognom1: 'Martínez',
  cognom2: 'Soler',
  dataEntradaTasca: '2025-12-10T09:30:00Z',
  completa: true,
  observacions: 'Tasca entregada abans de la data límit'
}
Tasques >
```

```
> db.Entrades.find({
  completa: false
}).sort({
  nomAlumne: 1
})
< {
  _id: ObjectId('695d24f48d4456fc539d1986'),
  nomAlumne: 'Pol',
  cognom1: 'García',
  cognom2: 'López',
  dataEntradaTasca: '2025-12-12T14:15:00Z',
  completa: false,
  observacions: 'Falten alguns exercicis'
}
Tasques >
```