

# TAREA PARA BD07

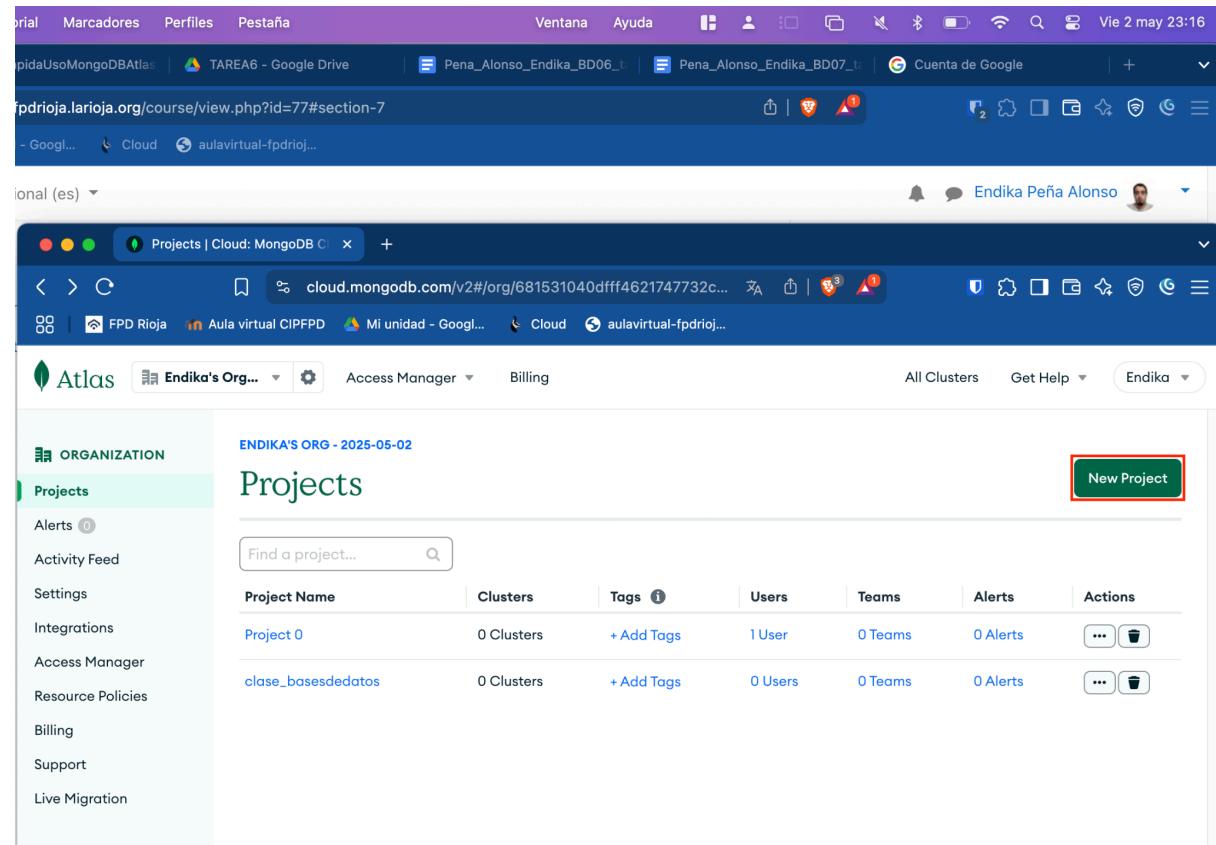
Bases de datos no relacionales

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# Proceso de creación de un proyecto

Una vez iniciado sesión podemos irnos a proyectos y pulsar sobre nuevo proyecto, debemos darle un nombre.



The screenshot shows a web browser window with a purple header bar containing links like 'Marcadores', 'Perfiles', and 'Pestaña'. Below the header, there's a toolbar with icons for file operations and a timestamp 'Vie 2 may 23:16'. The main content area displays a MongoDB Cloud interface. On the left, a sidebar titled 'ORGANIZATION' lists 'Projects', 'Alerts (0)', 'Activity Feed', 'Settings', 'Integrations', 'Access Manager', 'Resource Policies', 'Billing', 'Support', and 'Live Migration'. The main content area is titled 'ENDIKA'S ORG - 2025-05-02' and shows a table of existing projects:

Project Name	Clusters	Tags	Users	Teams	Alerts	Actions
Project 0	0 Clusters	+ Add Tags	1 User	0 Teams	0 Alerts	[...] [Delete]
clase_basesdedatos	0 Clusters	+ Add Tags	0 Users	0 Teams	0 Alerts	[...] [Delete]

A prominent green button labeled 'New Project' is located in the top right corner of the main content area. The URL in the browser's address bar is 'cloud.mongodb.com/v2#/org/681531040dfff4621747732c...'. The overall theme is light blue and white.

The screenshot shows a web browser window with multiple tabs open. The main tab displays the MongoDB Atlas 'Create a Project' interface. The left sidebar shows navigation options like Projects, Alerts, Activity Feed, Settings, Integrations, Access Manager, Resource Policies, Billing, Support, and Live Migration. The main content area has two tabs: 'Name Your Project' (selected) and 'Add Members'. Under 'Name Your Project', there is a text input field containing 'nombrebasedatos'. Below it, there is a section for 'Add Tags (Optional)' with a note about labeling projects. At the bottom, there is a table with columns 'Key', 'Value', and 'Actions'.

Después de darle nombre debemos asignar los permisos y terminar dándole a crear.

The screenshot shows a web browser window with the following details:

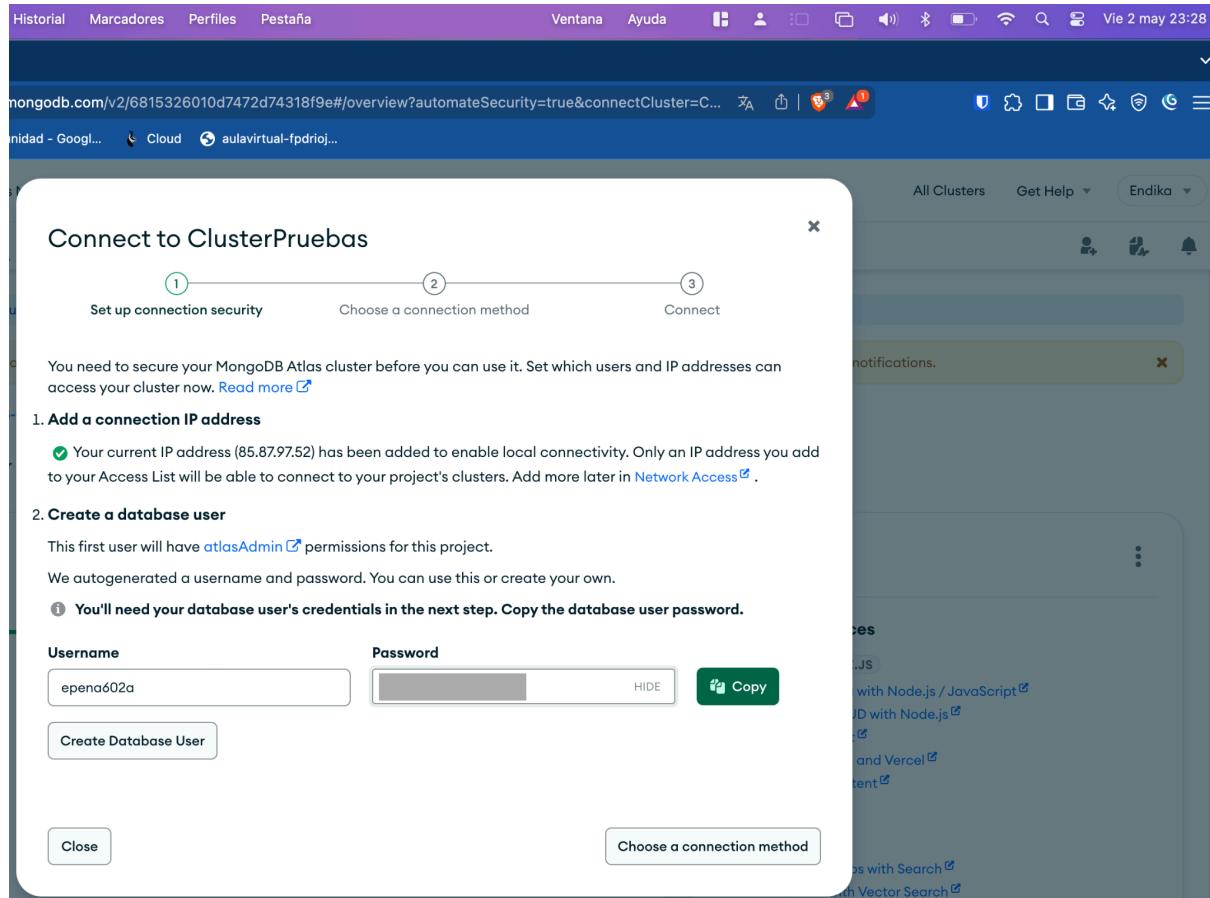
- Address Bar:** cloud.mongodb.com/v2#/org/681531040dff4621747732c...
- Header:** Ventana, Ayuda, Pestaña, Compartir, E.
- Left Sidebar (Organization):** Projects (selected), Alerts, Activity Feed, Settings, Integrations, Access Manager, Resource Policies, Billing, Support, Live Migration.
- Main Content:**
  - Create a Project:** Step 1: Name Your Project (checked), Step 2: Add Members.
  - Add Members and Set Permissions:** Invite new or existing users via email address... (Input field).
  - Permissions:** Give your members access permissions below.
    - epena602a@fpdrioja.com (you)** assigned as **Project Owner**.
  - Buttons:** Back, Cancel, Create Project.
- Right Sidebar (Project Member Permissions):**
  - Project Owner:** Has full administration access.
  - Project Cluster Manager:** Can update clusters.
  - Project Data Access Admin:** Can access and modify a cluster's data and indexes, and kill operations.
  - Project Data Access Read/Write:** Can access a cluster's data and indexes, and modify data.
  - Project Data Access Read Only:** Can access a cluster's data only.

Para la creación de la base de datos previamente debemos crear un cluster.

The screenshot shows a web browser window with the following details:

- Address Bar:** cloud.mongodb.com/v2#/clusters/starterTemplates
- Header:** Ventana, Ayuda, Pestaña.
- Main Content:**
  - Deploy your cluster:** Use a template below or set up advanced configuration options. You can also edit these configuration options once the cluster is created.
  - M10:** \$0.09/hour. Dedicated cluster for development environments and low-traffic applications. Storage: 10 GB, RAM: 2 GB, vCPU: 2 vCPUs.
  - Flex:** From \$0.011/hour. Up to \$30/month. For application development and testing, with on-demand burst capacity for unpredictable traffic. Storage: 5 GB, RAM: Shared, vCPU: Shared.
  - Free:** For learning and exploring MongoDB in a cloud environment. Storage: 512 MB, RAM: Shared, vCPU: Shared.
- Bottom Bar:** Free forever! Your free cluster is ideal for experimenting in a limited sandbox. You can upgrade to a production cluster anytime.
- Configurations:** Name: ClusterPruebas.
- Quick setup:** Automate security setup (checked), Preload sample dataset (checked).

Al crear el cluster nos dará un usuario password para poder conectarnos.



# Creación de la base de datos

Primer debemos ir a los clusters y pulsamos sobre browse collections

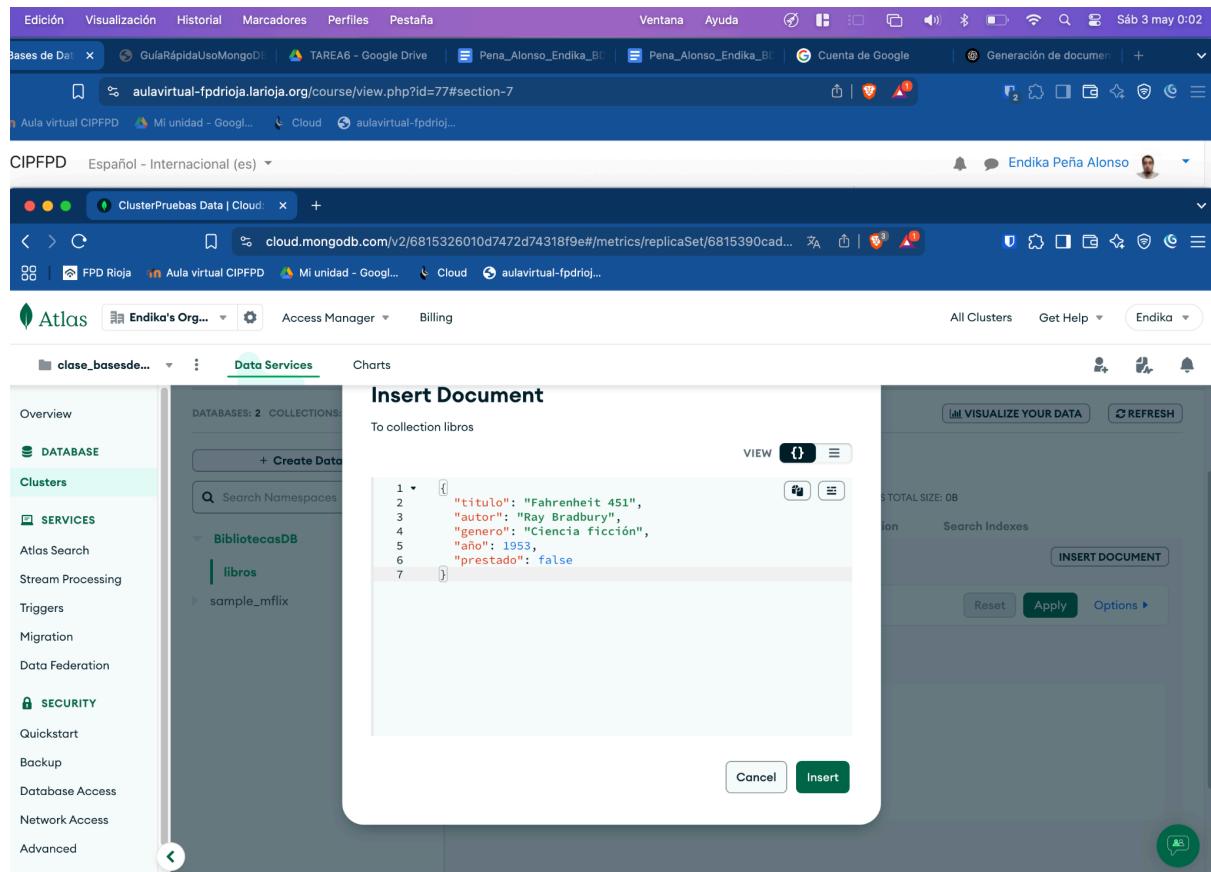
The screenshot shows the MongoDB Cloud interface. At the top, there's a navigation bar with tabs like 'Iniciación', 'Visualización', 'Historial', 'Marcadores', 'Perfiles', and 'Pestaña'. Below the navigation bar is a toolbar with icons for search, refresh, and various system functions. The main content area is titled 'Clusters' and shows a message: 'Sample dataset successfully loaded. Access it in [Collections](#) or by connecting with the MongoDB Shell.' There are four cards: 'ClusterPruebas' (status: FREE), 'Visualize Your Data' (with R/W metrics), 'Connections' (status: 2.0), and 'Data Size' (status: 135.15 MB / 512.00 MB). Below these cards is a table with columns: VERSION, REGION, TYPE, BACKUPS, LINKED APP SERVICES, ATLAS SQL, and ATLAS SEARCH.

The screenshot shows the MongoDB Atlas interface. A modal window titled 'Create Database' is open. In the 'Database name' field, 'BibliotecasDB' is entered. In the 'Collection name' field, 'libros' is entered. Under 'Additional Preferences', 'Clustered Index Collection' is selected. In the 'Index keys' section, there is a JSON object: { "\_id": 1 }. The 'Index name' field is empty. At the bottom right of the modal are 'Cancel' and 'Create' buttons.

The screenshot shows the MongoDB Atlas interface with the 'Collections' tab selected for the 'BibliotecasDB.libros' collection. The collection is labeled as 'CLUSTERED'. It shows storage details: STORAGE SIZE: 4KB, LOGICAL DATA SIZE: 0B, TOTAL DOCUMENTS: 0, and INDEXES TOTAL SIZE: 0B. Below this, there are tabs for Find, Indexes, Schema Anti-Patterns, Aggregation, and Search Indexes. A search bar at the top says 'Generate queries from natural language in Compass'. At the bottom, there is a 'Filter' dropdown and a text input 'Type a query: { field: 'value' }'. A large green button at the bottom right says 'INSERT DOCUMENT'.



## Insertando documentos



The screenshot shows the MongoDB Atlas interface. On the left, there's a sidebar with various options like Overview, Clusters, Services, Security, etc. The main area shows two databases: 'BibliotecasDB' and 'sample\_mflix'. Under 'BibliotecasDB', there are two collections: 'libros' and 'sample\_mflix'. A modal window titled 'Insert Document' is open, showing a JSON document intended for the 'libros' collection. The document is as follows:

```
1  {
2     "titulo": "Fahrenheit 451",
3     "autor": "Ray Bradbury",
4     "genero": "Ciencia ficción",
5     "año": 1953,
6     "prestado": false
7 }
```

At the bottom of the modal are 'Cancel' and 'Insert' buttons. To the right of the modal, there's a preview area showing 'TOTAL SIZE: 0B' and an 'INSERT DOCUMENT' button.

Hacemos lo mismo con 5, lo repetimos todas las veces.

The screenshot shows the MongoDB Compass interface. On the left, a sidebar menu includes 'Overview', 'DATABASE', 'Clusters', 'SERVICES', 'Migration', 'Data Federation', 'SECURITY', and 'Advanced'. The 'DATABASE' section is selected, showing 'BIBLIOTECASDB' with 'libros' and 'sample\_mflix' collections. The main panel displays the 'libros' collection with 5 documents. The first document's details are shown in a preview pane:

```
_id: ObjectId('68153ff57c82474b02e57273')
titulo: "1984"
autor: "George Orwell"
genero: "Distopía"
año: 1949
prestado: true
```

Below this, another document is partially visible:

```
_id: ObjectId('6815414d7c82474b02e572e8')
titulo: "Un mundo feliz"
autor: "Huxley, Aldous"
```

# Búsquedas

## Libros del género Distopía

The screenshot shows the MongoDB Compass interface running in a browser window. The title bar indicates it's on a Mac OS X system. The main interface displays a database named 'BibliotecasDB' with a collection called 'libros'. A search bar at the top right shows the query '{genero: "Distopía"}'. The results pane shows two documents matching the query:

```
_id: ObjectId('68153ff57c82474b02e57273')
titulo: "1984"
autor: "George Orwell"
genero: "Distopía"
año: 1949
prestado: true

_id: ObjectId('6815414d7c82474b02e572e8')
titulo: "Un mundo feliz"
autor: "Huxley, Aldous"
```

## Libros publicados antes del año 2000

The screenshot shows a web browser window with two tabs. The top tab is titled 'Curso: Bases de Datos' and displays a URL from 'fpdrioja.larioja.org'. The bottom tab is titled 'ClusterPruebas Data | Cloud:' and displays a URL from 'cloud.mongodb.com'. Both tabs show a list of items, likely database clusters or namespaces.

The main content area is the MongoDB Compass interface. On the left, there's a sidebar with sections for Overview, DATABASE, Clusters, SERVICES, SECURITY, and more. Under Clusters, 'BibliotecasDB' is selected, showing its namespaces: 'libros' and 'sample\_mflix'. The right panel shows the 'libros' namespace with a document titled 'BibliotecasDB.libros' (CLUSTERED). A query is being run: 'Find {año: {\$lt: 2000}}'. The results section shows two documents:

```
_id: ObjectId('68153ff57c82474b02e57273')
titulo : "1984"
autor : "George Orwell"
genero : "Distopía"
año : 1949
prestado : true

_id: ObjectId('6815414d7c82474b02e572e8')
titulo : "1984"
autor : "George Orwell"
genero : "Distopía"
año : 1949
prestado : true
```

## Libros que están prestados

The screenshot shows a web browser with two tabs open. The top tab is titled "Bases de Datos" and displays a course page from "aulavirtual-fpdrioja.org". The bottom tab is titled "ClusterPruebas Data | Cloud" and shows the MongoDB Atlas interface for a database named "clase\_basesde...". The left sidebar of the Atlas interface lists "DATABASES", "Clusters", "SERVICES", and "SECURITY". The main panel shows a collection named "BibliotecasDB" with sub-collections "libros" and "sample\_mflix". The "Find" tab is selected, and a query filter is applied: "{prestado: true}". The results show two documents: one for "1984" by George Orwell and another for "Distopía" by George Orwell. The results are displayed in a table with columns for \_id, título, autor, genero, año, and prestado.

_id	título	autor	genero	año	prestado
ObjectId('68153ff57c82474b02e57273')	"1984"	"George Orwell"	"Distopía"	1949	true
ObjectId('6815415c7c82474b02e572ed')	"Distopía"	"George Orwell"	"Distopía"	1949	true

## Libros de un autor específico

The screenshot shows a web browser window with two tabs open. The top tab is a course page from 'aulavirtual-fpdrioja...' with the URL <https://aulavirtual-fpdrioja.org/course/view.php?id=77#section-7>. The bottom tab is 'ClusterPruebas Data | Cloud:' with the URL <https://cloud.mongodb.com/v2/6815326010d7472d74318f9e#/met...>. Below the tabs is the MongoDB Compass interface for the 'BibliotecasDB' database. The left sidebar shows the database structure with 'libros' and 'sample\_mflix' collections. The main pane displays a query result for books by 'George Orwell'. The first document in the results is:

```
_id: ObjectId('68153ff57c82474b02e57273')
título: "1984"
autor: "George Orwell"
genero: "Distopía"
año: 1949
prestado: true
```

Below the results, it says 'QUERY RESULTS: 1-3 OF 3'.

## Actualizar el estado de "prestado" a false

The screenshot shows the MongoDB Compass interface. On the left, the sidebar lists databases (clase\_basesde...), services (Atlas Search, Stream Processing, Triggers, Migration, Data Federation), security (Quickstart, Backup, Database Access, Network Access, Advanced), and system status (All Good). The main area shows the 'Data Services' tab selected for the 'BibliotecasDB' database. The 'libros' collection is selected. A document is being edited, showing fields: \_id, titulo, autor, genero, año, and prestado. The 'prestado' field is currently set to true. A yellow message box at the bottom indicates 'Document modified.' with 'CANCEL' and 'UPDATE' buttons.

Otras alternativas es usar un cliente como Compass

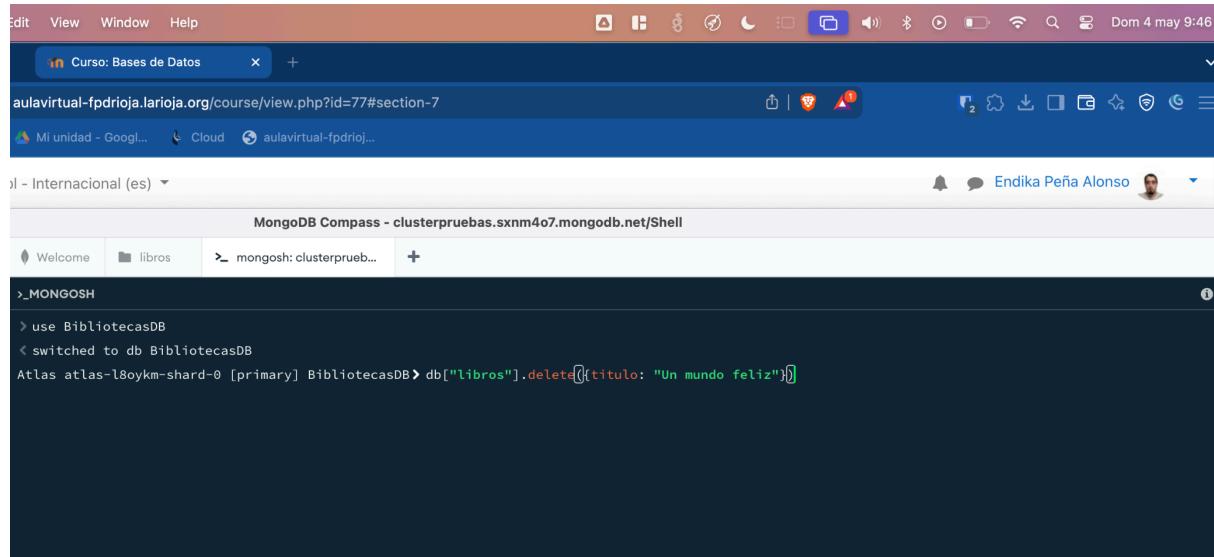
The screenshot shows the MongoDB website's "MongoDB Compass Download (GUI)" page. On the left, there is a sidebar with links: MongoDB Atlas, MongoDB Enterprise Advanced, MongoDB Community Edition, Tools (highlighted in green), MongoDB Shell, MongoDB Compass (GUI) (highlighted in green), Atlas CLI, Atlas Kubernetes Operator, and MongoDB CLI for. The main content area features the MongoDB logo and the title "MongoDB Compass Download (GUI)". Below the title, there is a descriptive text: "Easily explore and manipulate your database with Compass, the GUI for MongoDB. Intuitive and flexible, Compass provides detailed schema visualizations, real-time performance metrics, sophisticated querying abilities, and much more." At the bottom, there is another note: "Please note that MongoDB Compass comes in three versions: a full version with all features, a read-only version without write or delete capabilities, and an isolated edition, whose sole network connection is to the MongoDB instance."

O también podemos usar el cliente de Robo3T Studio

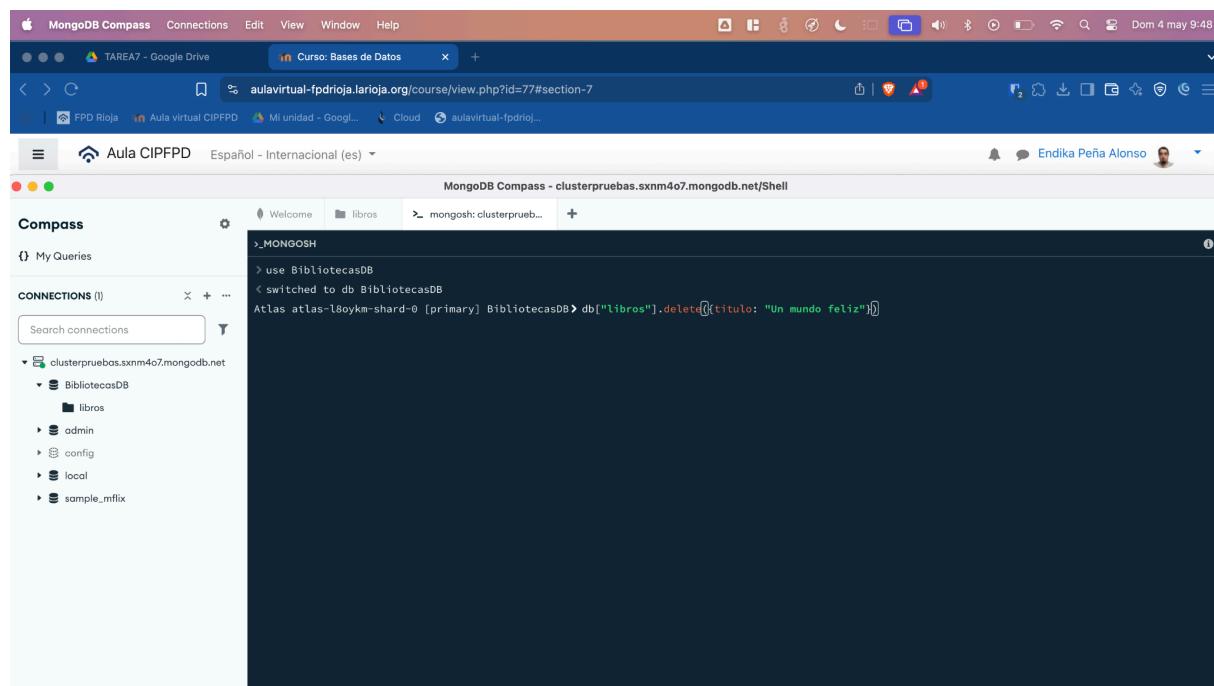
The screenshot shows the Robo 3T website's homepage, which has now become the Studio 3T homepage. It features the Studio 3T logo and the text "Robo 3T is now Studio 3T". Below this, it says "Studio 3T Free edition extends and replaces Robo 3T with:". A bulleted list follows: • Easy MongoDB Connections Manager • IntelliShell with fast auto-completion • Dark theme, with multiple customizations ... and much, much more. At the bottom, there is a green button with the text "Download Studio 3T today".

## Eliminar un libro por título

Realizado desde mongo compass cliente para hacer consultas sobre mongo.



```
>_MONGOSH
> use BibliotecasDB
< switched to db BibliotecasDB
Atlas atlas-l8oykm-shard-0 [primary] BibliotecasDB> db["libros"].delete({titulo: "Un mundo feliz"})
```



```
>_MONGOSH
> use BibliotecasDB
< switched to db BibliotecasDB
Atlas atlas-l8oykm-shard-0 [primary] BibliotecasDB> db["libros"].delete({titulo: "Un mundo feliz"})
```