

Tarea S5.01. Consultas con MongoDB

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Descripción

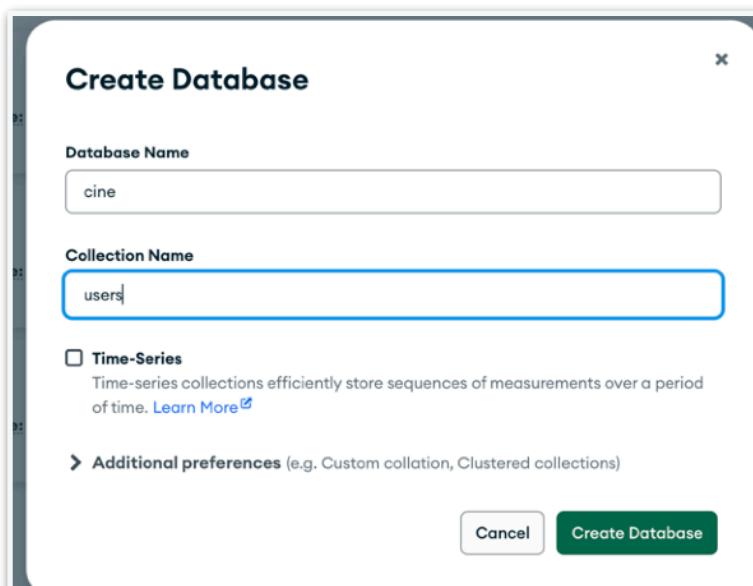
Trabajaremos con una base de datos que contiene colecciones relacionadas con una aplicación de entretenimiento cinematográfico:

- users: Almacena información de usuarios/as, incluyendo nombres, emails y contraseñas cifradas.
- theatres: Contiene datos de cines, como ID, ubicación (dirección y coordenadas geográficas).
- sesiones: Guarda sesiones de usuario, incluyendo ID de usuario y tokens JWT para la autenticación.
- movies: Incluye detalles de películas, como trama, géneros, duración, elenco, comentarios, año de lanzamiento, directores, clasificación y premios.
- comments: Almacena comentarios de usuarios/as sobre películas, con información del autor/a del comentario, ID de la película, texto del comentario y la fecha.

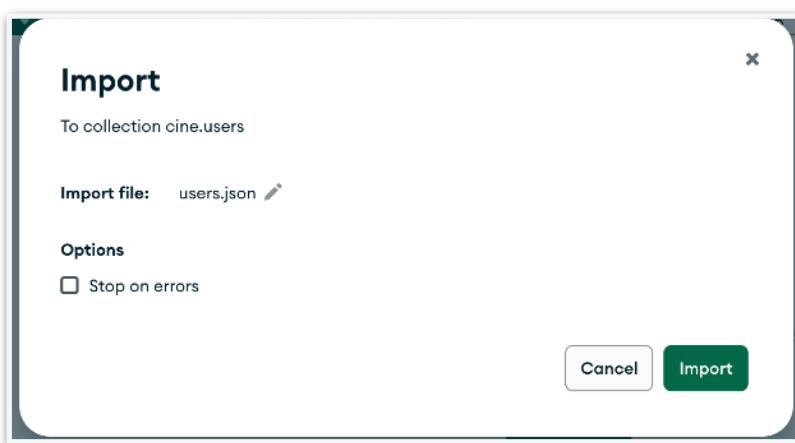
Realizarás algunas consultas que te pide el cliente/a, quien está midiendo si serás capaz o no de hacerte cargo de la parte analítica del proyecto vinculado con su base de datos.

Nivel 1

Crea una base de datos con MongoDB utilizando como colecciones los archivos adjuntos.



The screenshot shows the MongoDB Compass interface. On the left, the connection tree shows 'localhost:27017' with databases 'admin', 'cine', 'config', and 'local'. The 'users' database under 'cine' is selected. The main area is titled 'Documents 0' and shows a message: 'This collection has no data. It only takes a few seconds to import data from a JSON or CSV file.' A green 'Import data' button is at the bottom.



The screenshot shows the MongoDB Compass interface with the 'users' collection now containing four documents. The documents are:

```

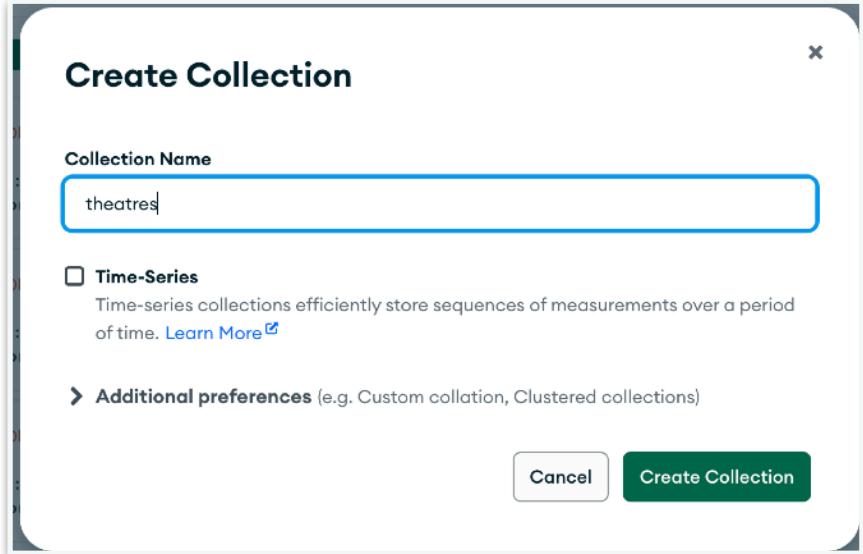
_id: ObjectId('59b99db4cf9a34dc7885b6')
name: "Ned Stark"
email: "sean_beanygameofthron.es"
password: "$2b$12$UREFwsR0yFCRqGNK0Lz00HM/jLhgUCNNIj9RJaqMUQ74crLj1Vu"

_id: ObjectId('59b99db4cf9a34dc7885b7')
name: "Robert Baratheon"
email: "mark_addy@gameofthron.es"
password: "$2b$12$yGqxLG9LZpXA2xVdhuPnS0Zd.VURVkj7wgOLY3pn0s7u2S1Z032y"

_id: ObjectId('59b99db5cf9a34dc7885b8')
name: "Jaime Lannister"
email: "nikola_j_coster-waldau@ganeofthron.es"
password: "$2b$12$6vz7wiw0.EI5Rilvq1zUc./9480gb1uPtXcahDxIadgyC3PS8XCUK"

_id: ObjectId('59b99db5cf9a34dc7885b9')
name: "Catelyn Stark"
email: "michelle_fairley@ganeofthron.es"
password: "$2b$12$fiatHSSh1zKNFX2i/FTEreWGjxoJxvmV7XL.qlfqCr8CwOxK.mZWS"

```



Compass

localhost:27017 > cine > theatres

Documents 0 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query +](#)

[ADD DATA](#) [EXPORT DATA](#) [UPDATE](#) [DELETE](#)

This collection has no data
It only takes a few seconds to import data from a JSON or CSV file.

[Import data](#)

Connections (2)

- localhost:27017
 - admin
 - cine
 - theatres
 - ...
 - users
- config
- local

Compass

localhost:27017 > cine > theatres

Documents 1,6K Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query +](#)

[ADD DATA](#) [EXPORT DATA](#) [UPDATE](#) [DELETE](#)

1 - 25 of 1564

_id: ObjectId('59a47286cfa9a3a73e51e72c')
theaterId: 1000
location: Object

_id: ObjectId('59a47286cfa9a3a73e51e72d')
theaterId: 1003
location: Object

_id: ObjectId('59a47286cfa9a3a73e51e72e')
theaterId: 1008
location: Object

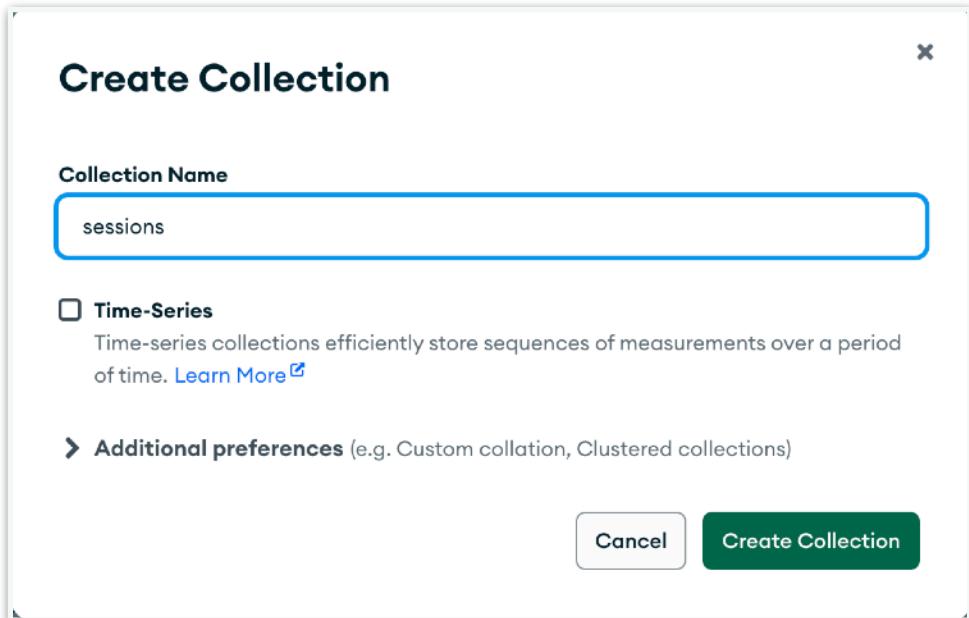
_id: ObjectId('59a47286cfa9a3a73e51e72f')
theaterId: 1004
location: Object

_id: ObjectId('59a47286cfa9a3a73e51e730')
theaterId: 1002
location: Object

Objects

Connections (2)

- localhost:27017
 - admin
 - cine
 - theatres
 - ...
 - users
- config
- local



Compass

localhost:27017 > cine > sessions

Documents 0 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#).

[ADD DATA](#) [EXPORT DATA](#) [UPDATE](#) [DELETE](#)

This collection has no data

It only takes a few seconds to import data from a JSON or CSV file.

[Import data](#)

Search connections: MongoDB, localhost:27017, admin, cine, sessions, theaters, users, config, local.

Compass

localhost:27017 > cine > sessions

Documents 1 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query](#).

[ADD DATA](#) [EXPORT DATA](#) [UPDATE](#) [DELETE](#)

```
_id: ObjectId('5a97f9c91c807bb9c6eb5fb4')
user_id: "t3qulfem@kwivv5.6ur"
jwt: "eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJXQ1OjE1MTk5MDkzMjEsIn5IZiI6M..."
```

Open MongoDB shell

Search connections: MongoDB, localhost:27017, admin, cine, sessions, theaters, users, config, local.

Create Collection

Collection Name

Time-Series
Time-series collections efficiently store sequences of measurements over a period of time. [Learn More](#)

➤ **Additional preferences** (e.g. Custom collation, Clustered collections)

[Cancel](#) [Create Collection](#)

Compass

My Queries

CONNECTIONS (2)

- Search connections
- MongoDB
- localhost:27017
 - admin
 - cine
 - movies
 - sessions
 - theaters
 - users
 - config
 - local

localhost:27017 > cine > movies

Documents 0 Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query +](#). [Explain](#)

+ ADD DATA EXPORT DATA UPDATE DELETE 25 0 - 0 of 0

This collection has no data
It only takes a few seconds to import data from a JSON or CSV file.

[Import data](#)

Compass

My Queries

CONNECTIONS (2)

- Search connections
- MongoDB
- localhost:27017
 - admin
 - cine
 - movies
 - sessions
 - theaters
 - users
 - config
 - local

localhost:27017 > cine > movies

Documents 23.5K Aggregations Schema Indexes 1 Validation

Type a query: { field: 'value' } or [Generate query +](#). [Explain](#)

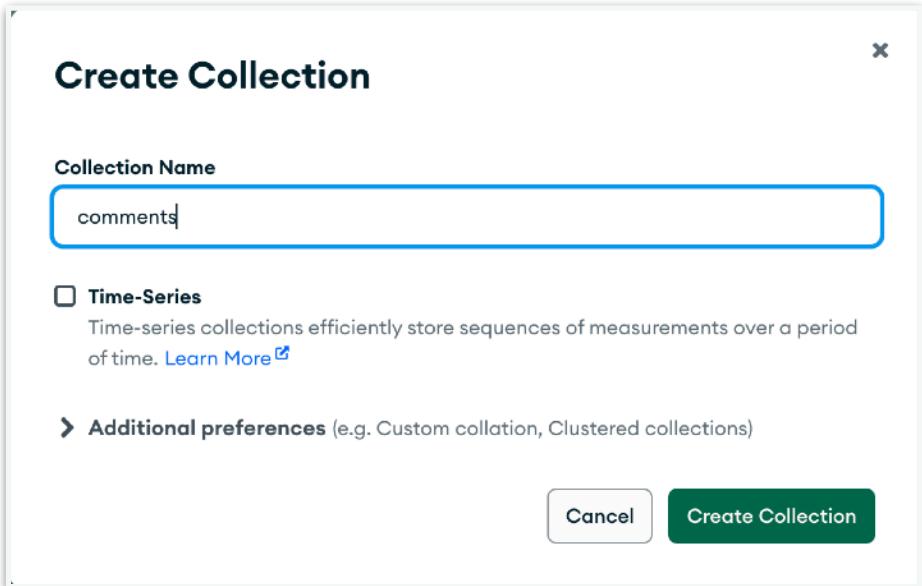
+ ADD DATA EXPORT DATA UPDATE DELETE 25 1 - 25 of 23535

```

{
  "_id": ObjectId('573a1390f29313caabcd4135'),
  "plot": "Three men hammer on an anvil and pass a bottle of beer around.",
  "genres": [
    "Action"
  ],
  "runtime": 1,
  "cast": [
    {
      "name": "John Smith"
    }
  ],
  "num_mflix_comments": 1,
  "title": "Blacksmith Scene",
  "fullplot": "A stationary camera looks at a large anvil with a blacksmith behind it...",
  "countries": [
    "USA"
  ],
  "released": "1893-05-09T00:00:00.000+00:00",
  "directors": [
    {
      "name": "John Smith"
    }
  ],
  "rated": "UNRATED",
  "awards": {
    "nominations": 0
  },
  "lastupdated": "2015-08-26 00:03:50.133000000",
  "year": 1893,
  "imdb": {
    "url": "http://www.imdb.com/title/tt0000000/"
  },
  "type": "movie",
  "tomatoes": {
    "score": 0,
    "critics": 0,
    "audience": 0
  }
}

```

Import completed.
23539 documents imported.



Compass

localhost:27017 > cine > comments

Documents 0 Aggregations Schema Indexes 1 Validation

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

[ADD DATA](#) [EXPORT DATA](#) [UPDATE](#) [DELETE](#)

25 0 - 0 of 0

This collection has no data
It only takes a few seconds to import data from a JSON or CSV file.

[Import data](#)

Compass

localhost:27017 > cine > comments

Documents 50.3K Aggregations Schema Indexes 1 Validation

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

[ADD DATA](#) [EXPORT DATA](#) [UPDATE](#) [DELETE](#)

25 1 - 25 of 50304

```
_id: ObjectId('5a9427648b0beeb6b69579cc')
name: "Andrea Lee"
email: "andrea_le@fakegmail.com"
movie_id: ObjectId('573a1398f29313caab418c')
text: "Rem officiis eaque repellendus amet eos doloribus. Porro dolor volupta.."
date: 2012-03-26T23:20:16.899+00:00
```

```
_id: ObjectId('5a9427648b0beeb6b69579cf')
name: "Greg Powell"
email: "greg_powell@fakegmail.com"
movie_id: ObjectId('573a1398f29313caab41b1')
text: "Tenetur dolorum molestiae ea. Eligendi praesentium unde quod porro. Co.."
date: 1987-02-10T00:29:36.899+00:00
```

```
_id: ObjectId('5a9427648b0beeb6b69579d0')
name: "Talisa Maegyr"
email: "ona_chaplin@gamelofthron.es"
movie_id: ObjectId('573a1398f29313caab41b1')
text: "Rem itaque ad sit rem voluptatibus. Ad fugiat maxime illum optio iure .."
date: 1998-08-22T11:45:03.899+00:00
```

Tenetur dolorum molestiae ea. Eligendi praesentium unde quod porro. Commodo ni placeat rerum vero cupiditate neque. Dolor nihil vero animi.

Import completed.
50304 documents imported.

Schema users:

This screenshot shows the MongoDB Compass interface for the 'users' collection. The left sidebar lists collections: admin, cine, comments, movies, sessions, theaters, and users. The main area displays the schema for the '_id', 'email', 'name', and 'password' fields. The '_id' field is of type objectid. The 'email' field is of type string, with a list of sample values including dominic_carter@gameofthrones.es, kristoffer_hivju@gameofthrones.es, iain_glen@gameofthrones.es, lena_headley@gameofthrones.es, michael_moore@fakegmail.com, melissa_young@fakegmail.com, mercedes_tyler@fakegmail.com, jose_hall@fakegmail.com, andrea_le@fakegmail.com, sophie_turner@gameofthrones.es, taylor_scott@fakegmail.com, and shawn_mccormick@fakegmail.com. The 'name' field is of type string, with a list of sample values including Ellaria Sand, Stannis Baratheon, Teresa Thomas, Qyburn, Richard Schmidt, Lisa Russo, Jerry Cabrera, April Cole, Denise Davidson, Jaime Lannister, Tormund Giantsbane, Jason Hernandez, Kristen Schmidt, Talisa Maegyr, Maester Luwin, Daario Naharis, Gendry, Mercedes Tyler, Daniel Simmons, and Mace Tyrell. The 'password' field is of type string, with sample values including \$2b\$12\$OumeM9/x5dBn5RLd/5QUNu8pozsvbhJtLs2S02JqCwzubbbBK902, \$2b\$12\$abcnl3CdUTfq2Ez5f0bOEtsM6hIok6jsPMytXnVlwZGtEaHtpohsy, and \$2b\$12\$FExjg7CLhNCaoUsB9seub6macHzkJCFZBheMc6CeIKOZfeTKPBM.

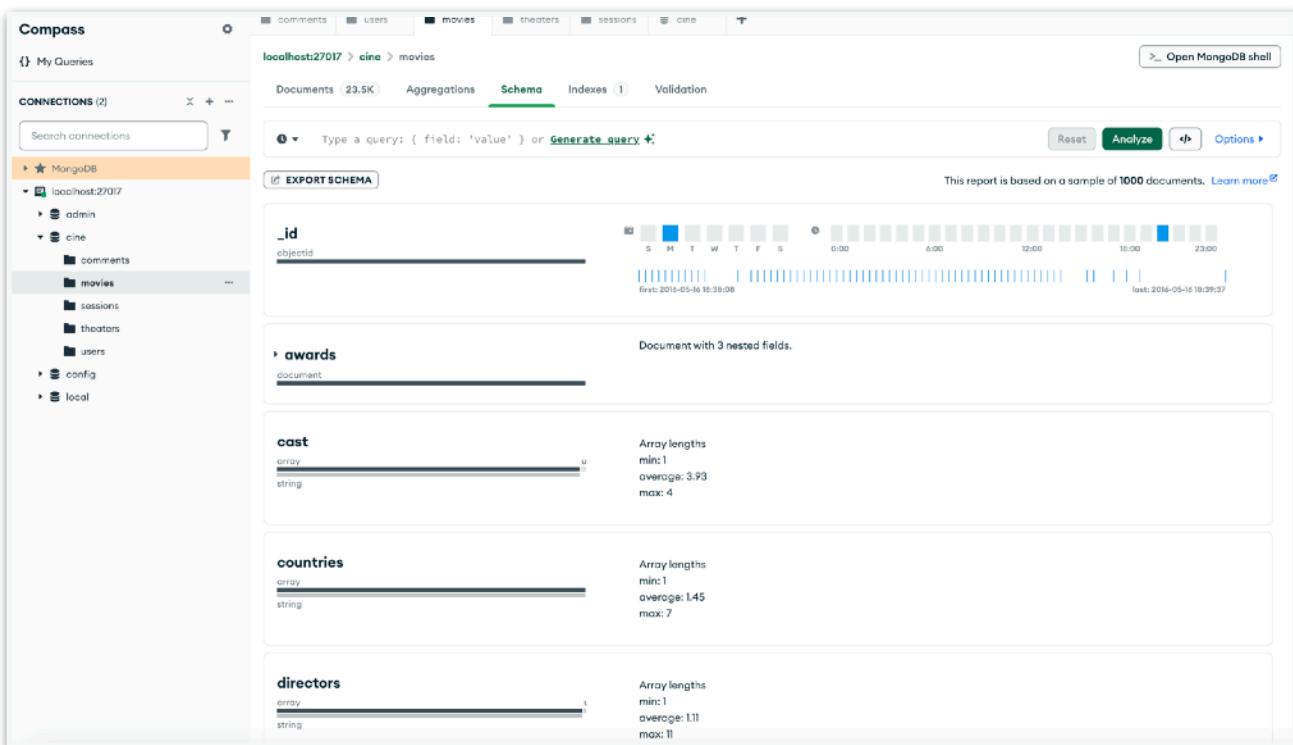
Schema theaters:

This screenshot shows the MongoDB Compass interface for the 'theaters' collection. The left sidebar lists collections: admin, cine, comments, movies, sessions, theaters, and users. The main area displays the schema for the '_id', 'location', and 'theaterId' fields. The '_id' field is of type objectid. The 'location' field is of type document, described as a 'Document with 2 nested fields'. The 'theaterId' field is of type int32, with sample values including 107, 2726, 120, 775, 871, 1190, 947, 2885, 2776, 364, 126, 2781, 1904, 352, 106, and 190.

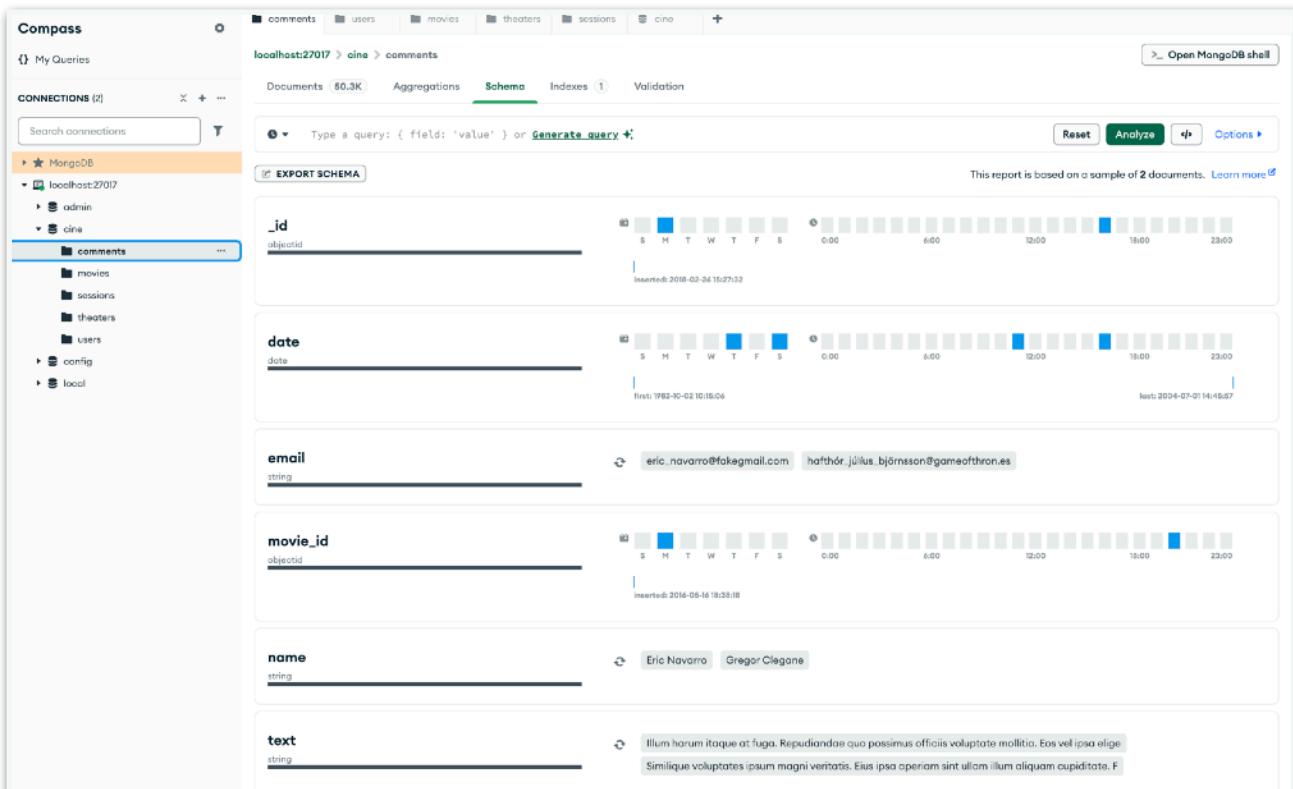
Schema sessions:

This screenshot shows the MongoDB Compass interface for the 'sessions' collection. The left sidebar lists collections: admin, cine, comments, movies, sessions, theaters, and users. The main area displays the schema for the '_id', 'jwt', and 'user_id' fields. The '_id' field is of type objectid, with an inserted timestamp of 2018-03-01T02:02:01. The 'jwt' field is of type string, with a sample value eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9eyJ0YXQiOjE1MTk5MDkzMjEsIm5iZlI6MTUxOTkwOTMyMSwianRpIjoiNjJZDA. The 'user_id' field is of type string, with a sample value t3quifeem@kwiv5.6ur.

Schema movies:



Schema comments:



Ejercicio 1

- Muestra los 2 primeros comentarios que aparecen en la base de datos:

localhost:27017 > cine > comments

Documents 50.3K Aggregations Schema Indexes Validation

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

Project { field: 0 }

Sort { field: -1 } or [[{'field': -1}]]

Max Time MS 60000

Collation { locale: 'simple' }

Skip 0 Limit 2

Index Hint { field: -1 }

[ADD DATA](#) [EXPORT DATA](#) [UPDATE](#) [DELETE](#)

25 1-2 of 2

`_id: ObjectId('5a9427648b0beebe69579cc')
name: 'Andrea Le'
email: 'andrea_le@fakegmail.com'
movie_id: ObjectId('573a1390f29313caabcd418c')
text: 'Rem officiis eaque repellendus amet eos doloribus. Porro dolor volupta...'
date: 2012-03-26T23:20:16.000+00:00`

`_id: ObjectId('5a9427648b0beebe69579cf')
name: 'Greg Powell'
email: 'greg_powell@fakegmail.com'
movie_id: ObjectId('573a1390f29313caabcd41b1')
text: 'Tenetur dolorum molestiae ea. Eligendi praesentium unde quod porro. Co...'
date: 1987-02-10T00:29:36.000+00:00`

```
> db.comments.find().limit(2)
< {
  _id: ObjectId('5a9427648b0beebe69579cc'),
  name: 'Andrea Le',
  email: 'andrea_le@fakegmail.com',
  movie_id: ObjectId('573a1390f29313caabcd418c'),
  text: 'Rem officiis eaque repellendus amet eos doloribus. Porro dolor voluptatum voluptates neque culpa molestias. Voluptate unde nulla temporibus ullam.',
  date: 2012-03-26T23:20:16.000Z
}
{
  _id: ObjectId('5a9427648b0beebe69579cf'),
  name: 'Greg Powell',
  email: 'greg_powell@fakegmail.com',
  movie_id: ObjectId('573a1390f29313caabcd41b1'),
  text: 'Tenetur dolorum molestiae ea. Eligendi praesentium unde quod porro. Comodi nisi sit placeat rerum vero cupiditate neque. Dolorum nihil vero animi.',
  date: 1987-02-10T00:29:36.000Z
}
cine>
```

- ¿Cuántos usuarios tenemos registrados? - 185 usuarios

localhost:27017 > cine > users

Documents 185 Aggregations Schema Indexes Validation

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

[ADD DATA](#) [EXPORT DATA](#) [UPDATE](#) [DELETE](#)

25 1-25 of 185

`_id: ObjectId('59b99db4cf9a34dc7885b6')
name: 'Ned Stark'
email: 'sean.bean@ganeofthron.es'
password: '$2b$12$UEFawsRUoyF8CRqGNkDz0DHM/jLhgUCNN1J9RJAqMUQ74crLJ1vu'`

`_id: ObjectId('59b99db4cf9a34dc7885b7')
name: 'Robert Baratheon'
email: 'mark.addy@ganeofthron.es'
password: '$2b$12$yQexLG9L2pxA2xVdhuFnS0Zd.VURVkc7wg0LY3pn067u251Z032y'`

`_id: ObjectId('59b99db5cf9a34dc7885b8')
name: 'Jaime Lannister'
email: 'nikolaj_coster-waldau@ganeofthron.es'
password: '$2b$12$6vz7wiw0.EI58ilvq1zUc./9480gbluPtXcahOxIadgyC3PS8XCUK'`

Screenshots of MongoDB Compass showing the aggregation pipeline and output preview.

Aggregation Pipeline:

```

1. Stage 1: $count
2. Stage 2: $count
  
```

Output Preview (Stage 1):

```

string: 185
  
```

MongoDB Compass - localhost:27017/Shell

```

>_MONGOSH
> db["users"].find()
<
> db.users.countDocuments()
< 0
> use cine
< switched to db cine
> db.users.countDocuments()
< 185
cine>
  
```

- ¿Cuántos cines existen en el estado de California? - **169 cines**

Screenshots of MongoDB Compass showing the aggregation pipeline and output preview.

Aggregation Pipeline:

```

1. Stage 1: $match
2. Stage 2: $count
  
```

Output Preview (Stage 1):

```

_id: ObjectId('59a47286cfa9a3a73e51e72e')
theaterId: 1009
location: Object
  
```

Output Preview (Stage 2):

```

numero cines California: 169
  
```

```

already on db cine
db.theaters.aggregate([
  { $match: { "location.address.state": "CA" } },
  { $count: "total_cines" }
])
{
  total_cines: 169
}
cine> |

```

- ¿Cuál fue el primer usuario en registrarse? - **Ned Stark**

The screenshot shows the Compass MongoDB interface. On the left, the connection tree is visible with 'localhost:27017' selected, showing databases like admin, cine, and users. The 'Aggregations' tab is active under the 'users' collection. The pipeline consists of two stages:

```

1. Stage 1: $sort
  {
    "_id": 1
  }

  Output preview after $sort stage (Sample of 10 documents):
  _id: ObjectId('59b99db4cfa9a34dcd7885b6')
  name: 'Ned Stark'
  email: 'sean_bean@gameofthron.es'
  password: '$2b$12$UREFwsRUoyF0CRqGNK0Lz00HM/jLhgUCNNIJ9RJAqMUQ74crlJ1Vu'

  _id: ObjectId('59b99db4cfa9a34dcd7885b7')
  name: 'Robert Baratheon'
  email: 'mark_addy@gameofthron.es'
  password: '$2b$12$yGxvLG9LZpX2xVdhupnS0Zd...'

2. Stage 2: $limit
  /**
   * Provide the number of documents to limit
   */
  1

  Output preview after $limit stage (Sample of 1 document):
  _id: ObjectId('59b99db4cfa9a34dcd7885b6')
  name: 'Ned Stark'
  email: 'sean_bean@gameofthron.es'
  password: '$2b$12$UREFwsRUoyF0CRqGNK0Lz00HM/jLhgUCNNIJ9RJAqMUQ74crlJ1Vu'

```

```

> db.users.aggregate([ { '$sort': { '_id: 1 } }, { '$limit': 1 } ])
< {
  _id: ObjectId('59b99db4cfa9a34dcd7885b6'),
  name: 'Ned Stark',
  email: 'sean_bean@gameofthron.es',
  password: '$2b$12$UREFwsRUoyF0CRqGNK0Lz00HM/jLhgUCNNIJ9RJAqMUQ74crlJ1Vu'
}
cine> |

```

- ¿Cuántas películas de comedia existen en la base de datos? - 7024

The screenshot shows the MongoDB Aggregations interface. At the top, there are tabs for 'Documents' (23.5K), 'Aggregations' (selected), 'Schema', 'Indexes' (1), and 'Validation'. Below the tabs are buttons for '\$match' (highlighted in blue), '\$count' (highlighted in green), 'SAVE', 'CREATE NEW', 'EXPORT TO LANGUAGE', 'Generate aggregation', 'Explain', 'Run', and 'Options'. The main area is divided into two stages:

- Stage 1: \$match**

```
1 /**
2  * query: The query in MQL.
3 */
4 {
5   genres: "Comedy"
6 }
```

Output preview after \$match stage (Sample of 10 documents):


```
_id: ObjectId('573a1390f29313caabcd4883')
plot: "Cartoon figures announce, via comic
      strip balloons, that they will mov...
  > genres: Array (3)
  > runtime: 7
  > cast: Array (1)
  > num_mflix_comments: 1
  > poster: "https://m.media-
amazon.com/images/M/MVSBYZg2NjNhNT...
...  
_id: ObjectId('573a1390f29313caabcd50e5')
plot: "The cartoonist, Winsor McCay, brings
      the Dinosaurus back to life in th...
  > genres: Array (3)
  > runtime: 12
  > cast: Array (3)
  > num_mflix_comments: 1
  > poster: "https://m.media-
amazon.com/images/M/MV5BMTQxNzI4OD...
```
- Stage 2: \$count**

```
1 /**
2  * Provide the field name for the count.
3 */
4 'numero_peliculas_Comedy'
```

Output preview after \$count stage (Sample of 1 document):


```
numero_peliculas_Comedy: 7024
```

 (This result is circled in red)

```
> db.movies.aggregate([
  { $match: { genres: "Comedy" } },
  { $count: "numero_peliculas_Comedy" }
])
< {
  'numero_peliculas_Comedy': 7024
}
cine>
```

Ejercicio 2

Muéstrame todos los documentos de las películas producidas en 1932, pero que el género sea drama o estén en francés.

Documents 23.5K Aggregations Schema Indexes 1 Validation

\$match \$match

Untitled - modified SAVE + CREATE NEW EXPORT TO LANGUAGE PREVIEW STAGES TEXT WIZARD

Stage 1 Smatch

```
1 /*  
2 * query: The query in MQL.  
3 */  
4 {  
5   year: 1932  
6 }  
7
```

Output preview after \$match stage (Sample of 10 documents)

```
_id: ObjectId('573a1391f29313caabcd9458')  
plot: "A young artist draws a face at a canvas on his easel. Suddenly the mou..."  
runtime: 55  
rated: "UNRATED"  
cast: Array (4)  
num_flix_comments: 1  
poster: "https://m.media-amazon.com/images/M/MVSBNTQ1NTMzMTQtODIyYS00MTAxLWE1NT..."  
title: "The Blood of a Poet"  
lastupdated: "2015-09-16 13:13:05.537000000"  
languages: Array (1)  
released: 2010-05-20T00:00:00.000+00:00  
directors: Array (1)  
writers: Array (1)  
awards: Object  
year: 1932  
imdb: Object  
countries: Array (1)  
type: "movie"  
tomatoes: Object
```

```
_id: ObjectId('573a1392f29313caabcd99a3')  
plot: "Junta is hated by the people in the village where she lives, especially..."  
genres: Array (3)  
runtime: 85  
cast: Array (4)  
poster: "https://m.media-amazon.com/images/M/MVSBNTQ1NTMzMTQtODIyYS00MTAxLWE1NT..."  
title: "The Blue Light"  
fullplot: "Junta is hated by the people in the village where she lives, especially..."  
languages: Array (2)  
released: 1934-05-08T00:00:00.000+00:00  
directors: Array (2)  
writers: Array (2)  
awards: Object  
lastupdated: "2015-08-03 01:02:12.350000000"  
year: 1932  
imdb: Object
```

Stage 2 Smatch

```
1 {  
2   $or: [  
3     { genres: "Drama" },  
4     { languages: "French" }  
5   ]  
6 }  
7
```

Output preview after \$match stage (Sample of 10 documents)

```
_id: ObjectId('573a1391f29313caabcd9458')  
plot: "A young artist draws a face at a canvas on his easel. Suddenly the mou..."  
runtime: 55  
rated: "UNRATED"  
cast: Array (4)  
0: "Enrique Rivero"  
1: "Elizabeth Lee Miller"  
2: "Miguel Angel Solá"  
3: "Pilar García..."  
genres: Array (3)  
0: "Drama"  
1: "Fantasy"  
2: "Mystery"  
runtime: 85  
cast: Array (4)
```

Documents 23.5K Aggregations Schema Indexes 1 Validation

\$match \$match Edit Explain Export Run Options

ALL RESULTS

Showing 1–18 count results

```
_id: ObjectId('573a1391f29313caabcd9458')  
plot: "A young artist draws a face at a canvas on his easel. Suddenly the mou..."  
runtime: 55  
rated: "UNRATED"  
cast: Array (4)  
num_flix_comments: 1  
poster: "https://m.media-amazon.com/images/M/MVSBNTQ1NTMzMTQtODIyYS00MTAxLWE1NT..."  
title: "The Blood of a Poet"  
lastupdated: "2015-09-16 13:13:05.537000000"  
languages: Array (1)  
released: 2010-05-20T00:00:00.000+00:00  
directors: Array (1)  
writers: Array (1)  
awards: Object  
year: 1932  
imdb: Object  
countries: Array (1)  
type: "movie"  
tomatoes: Object
```

```
_id: ObjectId('573a1392f29313caabcd99a3')  
plot: "Junta is hated by the people in the village where she lives, especially..."  
genres: Array (3)  
runtime: 85  
cast: Array (4)  
poster: "https://m.media-amazon.com/images/M/MVSBNTQ1NTMzMTQtODIyYS00MTAxLWE1NT..."  
title: "The Blue Light"  
fullplot: "Junta is hated by the people in the village where she lives, especially..."  
languages: Array (2)  
released: 1934-05-08T00:00:00.000+00:00  
directors: Array (2)  
writers: Array (2)  
awards: Object  
lastupdated: "2015-08-03 01:02:12.350000000"  
year: 1932  
imdb: Object
```

Export Pipeline To Language

My Pipeline

```
Shell
year: 1932
}
},
{
$match: {
$or: [
{
genres: "Drama"
},
{
languages: "French"
}
]
```

Exported Pipeline

```
Python
[
{
"$match": {
"year": 1932
}
}, {
"$match": {
"$or": [
{
"genres": "Drama"
}
]
}
}
```

Include Import Statements

Include Driver Syntax

Close

```
>_MONGOSH
>use cine
< switched to db cine
>db.movies.aggregate([
{
  $match: {
    year: 1932
  }
},
{
  $match: {
    $or: [
      {
        genres: "Drama"
      },
      {
        languages: "French"
      }
    ]
  }
}
])
<{
  _id: ObjectId('573a1391f29313caabcd9458'),
  plot: 'A young artist draws a face at a canvas on his easel. Suddenly the mouth on the drawing comes into life and starts talking. The artist tries to wipe it off, but fails. The drawing continues to talk and tell stories. The artist becomes increasingly disturbed by the conversation and tries to silence it again, but the drawing becomes more and more lifelike and threatening. The artist's mind begins to merge with the drawing, and he starts to feel like he is becoming part of it. He tries to run away, but the drawing chases him down and attacks him. In the end, the artist is killed by the drawing, which has become a powerful entity in its own right. The movie ends with a dark and twisted twist ending where the artist's soul is trapped in the drawing forever, unable to escape.', 
  runtime: 55,
  rated: 'UNRATED',
  cast: [
    'Enrique Rivero',
    'Elizabeth Lee Miller',
    'Pauline Carton',
    'Odette Talazac'
  ],
  num_mflix_comments: 1,
  poster: 'https://m.media-amazon.com/images/M/MV5BVWY30DE5ZWEtYileYi00NjA4LTk4ZWYtMzBhZDE5MjY0YTxxXkEyXkFqcGdeQXVyNzT4MDNyMTU@.V1.SY1600.SX677.AL.jpg',
  ...]
```

Ejercicio 3

Muéstrame todos los documentos de películas estadounidenses que tengan entre 5 y 9 premios que fueron producidas entre 2012 y 2014.

The screenshot shows the Compass MongoDB interface with the following details:

- Connections:** localhost:27017 > cine > movies
- Aggregations:** Stage 1: `$_id: ObjectId('573a1390f29313caabcd4135')`, `plot: "Three men hammer on an anvil and pass a bottle of beer around."`, `genres: Array (1)`, `runtime: 1`, `cast: Array (2)`, `num_mflix_comments: 1`, `title: "Blacksmith Scene"`, `fullplot: "A stationary camera looks at a"`. Stage 2: `$_id: ObjectId('573a1390f29313caabcd42e8')`, `plot: "A group of bandits stage a brazen train hold-up, only to find a determined..."`, `genres: Array (2)`, `runtime: 11`, `cast: Array (4)`, `poster: "https://m.media-amazon.com/images/M/MV5BMHU3NjFSNz.."`. Stage 3: `$_id: ObjectId('573a13acf29313caabd23f34')`, `plot: "shaken by the death of his father and disheartened by his stalled career..."`, `imdb: Object`, `year: 2012`, `plot: "Young writer Sal Paradise has his life shaken by the arrival of free-spirited..."`.
- Output preview:** Sample of 10 documents for each stage.
- Buttons:** PREVIEW, STAGES, TEXT, WIZARD, RUN, Options.

The screenshot shows the Compass MongoDB interface with the following details:

- Aggregations:** Stage 1: `$_id: ObjectId('573a13acf29313caabd29366')`, `plot: "The manager of the negative assets sector of Life magazine, Walter Mitty..."`, `imdb: Object`, `year: 2013`, `plot: "When his job along with that of his co-worker are threatened, Walter Mitty..."`, `genres: Array (3)`, `rated: "PG"`, `metacritic: 54`, `title: "The Secret Life of Walter Mitty"`, `lastupdated: "2015-08-31 00:10:51.747000000"`, `languages: Array (3)`, `writers: Array (3)`, `type: "movie"`, `tomatoes: Object`, `poster: "https://m.media-amazon.com/images/M/MV5BODYwNDYxNDk1Nl5BNl5BanBnKkFtZT..."`, `num_mflix_comments: 1`, `released: 2013-12-25T00:00:00.000+00:00`, `awards: Object`, `countries: Array (2)`, `cast: Array (4)`, `directors: Array (1)`, `runtime: 114`. Stage 2: `$_id: ObjectId('573a13b5f29313caabd45772')`, `plot: "After their cave is destroyed, a caveman family must trek through an..."`, `genres: Array (3)`, `runtime: 98`, `metacritic: 55`, `rated: "PG"`, `cast: Array (4)`, `poster: "https://m.media-amazon.com/images/M/MV5BMTcyOTc20TA1Ml5BNl5BanBnKkFtZT..."`, `title: "The Croods"`, `fullplot: "The Croods is a prehistoric comedy adventure that follows the world's..."`, `languages: Array (1)`, `released: 2013-03-22T00:00:00.000+00:00`, `directors: Array (2)`.
- Results:** ALL RESULTS button circled in red, showing 1-20 count results.
- Buttons:** Explain, Export, Run, Options.

Export

Aggregation on cine.movies

Export results from the aggregation below

```
db.getCollection('movies').aggregate(  
[  
  { $match: { countries: 'USA' } },  
  {  
    $match: {  
      year: { $in: [2012, 2013, 2014] }  
    }  
  },  
  {  
    $match: {  
      'awards.wins': { $in: [5, 6, 7, 8, 9] }  
    }  
  }  
]
```

Export File Type

JSON

CSV

» Advanced JSON Format

Cancel

Export...

```
>_MONGOSH  
> use cine  
< switched to db cine  
> db.getCollection('movies').aggregate(  
[  
  { $match: { countries: 'USA' } },  
  {  
    $match: {  
      year: { $in: [2012, 2013, 2014] }  
    }  
  },  
  {  
    $match: {  
      'awards.wins': { $in: [5, 6, 7, 8, 9] }  
    }  
  }  
,  
  { maxTimeMS: 60000, allowDiskUse: true }  
>  
< {  
  _id: ObjectId('573a13acf29313caabd29366'),  
  fullplot: "The manager of the negative assets sector of Life magazine, Walter Mitty, has been working for sixteen years for the magazine and has a tedious life.",  
  imbd: {  
    rating: 7.4,  
    votes: 211230,  
    id: 359950  
  },  
  year: 2013,  
  plot: "When his job along with that of his co-worker are threatened, Walter takes action in the real world embarking on a global journey that turns into an adventure.",  
  genres: [  
    'Adventure',  
    'Comedy',  
    'Drama'  
  ],  
  rated: 'PG',  
  director: 'Mark...
```

Nivel 2

Ejercicio 1

Cuenta cuántos comentarios escribe un usuario que utiliza "GAMEOFTHRON.ES" como dominio de correo electrónico.

Varios usuarios utilizan dominio “gameofthron.es” y el numero total de sus comentarios es el siguiente: 22841

The screenshot shows the MongoDB Aggregations interface with two stages defined:

Stage 1: \$match

```
1 ▪ {  
2   email: { $regex: "gameofthron.es" }  
3 }  
4  
5  
6  
7  
8  
9  
10
```

Output preview after \$match stage (Sample of 10 documents)

```
_id: ObjectId('5a9427648b@beeb69579d0')  
name: "Talisa Maegyr"  
email: "oona_chaplin@gameofthron.es"  
movie_id: ObjectId('573a1390f29313caabcd41b...  
text: "Rem itaque ad sit rem voluptatibus.  
      Ad fugiat maxime illum optio iure..."  
date: 1998-08-22T11:45:03.000+00:00
```

Stage 2: \$count

```
1 ▪ /**  
2  * Provide the field name for the count.  
3  */  
4 'Comentarios gameofthron'  
5
```

Output preview after \$count stage (Sample of 1 document)

```
Comentarios gameofthron: 22841
```

```
>_MONGOSH  
> use cine  
< switched to db cine  
> db.comments.aggregate([  
    {  
        $match: {  
            email: { $regex: "gameofthron\\.es" }  
        }  
    },  
    {  
        $count: "Comentarios gameofthron"  
    }  
)  
< {  
    'Comentarios gameofthron': 22841  
}  
cine> |
```

Ejercicio 2

¿Cuántos cines existen en cada código postal situados dentro del estado Washington DC (DC)? - **existe 1 cine para cada código postal**

The screenshot shows the MongoDB aggregation pipeline interface. Stage 1 is a '\$match' stage with the query: 1 ▪ { 2 "location.address.state": "DC" 3 } 4. The output preview shows two documents: 1. `_id: ObjectId('59a47286cfa9a3a73e51e785')`
`theaterId : 1092`
▶ `location : Object` 2. `_id: ObjectId('59a47287cfa9a3a73e51ec33')`
`theaterId : 801`
▶ `location : Object`

ALL RESULTS

The screenshot shows the 'ALL RESULTS' section with three documents:

- `_id: ObjectId('59a47286cfa9a3a73e51e785')`
`theaterId : 1092`
▶ `location : Object`
 ▼ `address : Object`
 `street1 : "3100 14th St Nw"`
 `city : "Washington"`
 `state : "DC"`
 `zipcode : "20010"`
 ▶ `geo : Object`
- `_id: ObjectId('59a47287cfa9a3a73e51ec33')`
`theaterId : 801`
▶ `location : Object`
 ▼ `address : Object`
 `street1 : "4500 Wisconsin Ave Nw"`
 `city : "Washington"`
 `state : "DC"`
 `zipcode : "20016"`
 ▶ `geo : Object`
- `_id: ObjectId('59a47287cfa9a3a73e51ecd8')`
`theaterId : 8500`
▶ `location : Object`
 ▼ `address : Object`
 `street1 : "50 Massachusetts Avenue NE"`
 `street2 : null`
 `city : "Washington"`
 `state : "DC"`
 `zipcode : "20002"`
 ▶ `geo : Object`

Nivel 3

Ejercicio 1

Encuentra todas las películas dirigidas por John Landis con una puntuación IMDb (Internet Movie Database) de entre 7,5 y 8. - **resultado da 4 películas**

Stage 1 (\$match)

```
1 * /**
2 * query: The query in MQL.
3 */
4 * {
5   directors: "John Landis"
6 }
```

Output preview after \$match stage (Sample of 10 documents)

```
_id: ObjectId('573a1397f29313caabce6d94')
fullplot: "Faber College has one frat house so disreputable it will take anyone. ..."
  > imdb: Object
    year: 1978
    plot: "At a 1962 college, Dean Vernon Wormer is determined to expel the entir..."
```

```
_id: ObjectId('573a1397f29313caabce76f7')
plot: "Jake Blues, just out from prison, puts together his old band to save t..."
  > genres: Array (3)
    runtime: 133
    rated: "R"
  > cast: Array (4)
    num_mflix_comments: 1
```

Stage 2 (\$match)

```
1 * {
2   "imdb.rating": { "$gte": 7.5, "$lte": 8 }
3 }
```

Output preview after \$match stage (Sample of 4 documents)

```
_id: ObjectId('573a1397f29313caabce6d94')
fullplot: "Faber College has one frat house so disreputable it will take anyone. ..."
  > imdb: Object
    year: 1978
    plot: "At a 1962 college, Dean Vernon Wormer is determined to expel the entir..."
```

```
_id: ObjectId('573a1397f29313caabce76f7')
plot: "Jake Blues, just out from prison, puts together his old band to save t..."
  > genres: Array (3)
    runtime: 133
    rated: "R"
  > cast: Array (4)
    num_mflix_comments: 1
```

ALL RESULTS

```
_id: ObjectId('573a1397f29313caabce6d94')
fullplot: "Faber College has one frat house so disreputable it will take anyone. ..."
  > imdb: Object
    year: 1978
    plot: "At a 1962 college, Dean Vernon Wormer is determined to expel the entir..."
```

```
_id: ObjectId('573a1397f29313caabce76f7')
plot: "Jake Blues, just out from prison, puts together his old band to save t..."
  > genres: Array (3)
    runtime: 133
    rated: "R"
  > cast: Array (4)
    num_mflix_comments: 1
```

ALL RESULTS

```
_id: ObjectId('573a1397f29313caabce7d06')
fullplot: "Two American college students are on a walking tour of Britain and are..."  
imdb: Object  
year: 1981  
plot: "Two American college students on a walking tour of Britain are attacke..."  
genres: Array (2)  
rated: "R"  
metacritic: 60  
title: "An American Werewolf in London"  
lastupdated: "2015-09-13 00:39:32.820000000"  
languages: Array (1)  
writers: Array (1)  
type: "movie"  
tomatoes: Object  
poster: "https://m.media-amazon.com/images/M/MV5BNTYzMdk3MzIyNV5BMl5BanBnXkFtZT..."  
num_mflix_comments: 1  
released: 1981-08-21T00:00:00.000+00:00  
awards: Object  
countries: Array (2)  
cast: Array (4)  
directors: Array (1)  
runtime: 97

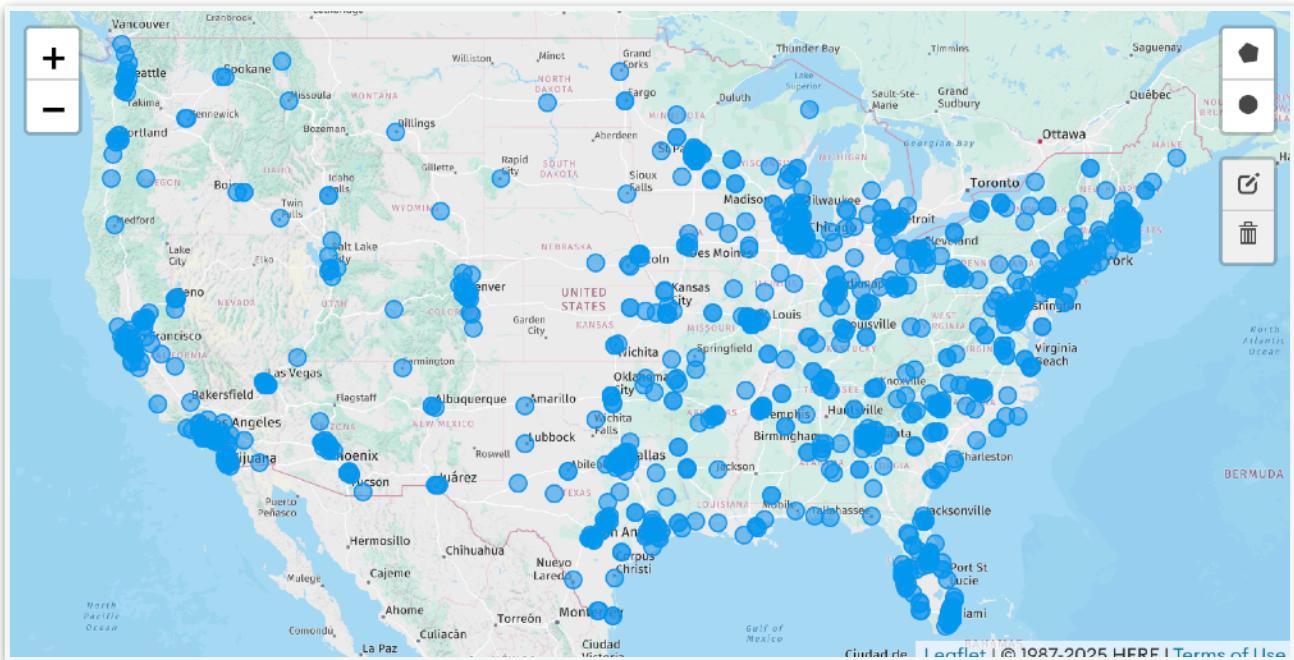
_id: ObjectId('573a1398f29313caabce8deb')
plot: "A snobbish investor and a wily street con artist find their positions ..."  
genres: Array (1)  
runtime: 116  
metacritic: 66  
rated: "R"  
cast: Array (4)  
poster: "https://m.media-amazon.com/images/M/MV5BYTEzMjBiMzkzMjQyMS00YzBhLTgzNW..."  
title: "Trading Places"  
fullplot: "Louis Winthorpe is a businessman who works for commodities brokerage f..."  
languages: Array (1)  
released: 1983-06-08T00:00:00.000+00:00  
directors: Array (1)  
writers: Array (2)  
awards: Object  
lastupdated: "2015-09-12 00:39:03.683000000"  
year: 1983  
imdb: Object  
countries: Array (1)  
type: "movie"
```

>_MONGOSH

```
> use cine
< switched to db cine
> db.movies.find(
  {
    directors: "John Landis",
    "imdb.rating": { $gte: 7.5, $lte: 8 }
  }
)
< {
  _id: ObjectId('573a1397f29313caabce6d94'),
  fullplot: "Faber College has one frat house so disreputable it will take an
imdb: {
  rating: 7.6,
  votes: 84834,
  id: 77975
},
year: 1978,
plot: 'At a 1962 college, Dean Vernon Wormer is determined to expel the ent
```

Ejercicio 2

Muestra en un mapa la ubicación de todos los teatros de la base de datos.



A screenshot of a web application interface. On the left, there is a sidebar with a tree view of database collections: localhost:27017, admin, cine, comments, movies, sessions, theaters, config, and local. The 'theaters' collection is currently selected. The main content area has two sections: 'address' (with a search bar containing 'document') and 'geo' (with a search bar containing 'coordinates'). Below these sections is a map of North America showing theater locations, which corresponds to the map above.