

# Nivel 1

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

| Collection name | Properties | Storage size | Documents | Avg. document size | Indexes | Total index size |
|-----------------|------------|--------------|-----------|--------------------|---------|------------------|
| comments        | -          | 4.10 kB      | 50K       | 284.00 B           | 1       | 4.10 kB          |
| movies          | -          | 4.10 kB      | 24K       | 1.60 kB            | 1       | 4.10 kB          |
| sessions        | -          | 4.10 kB      | 1         | 540.00 B           | 1       | 4.10 kB          |
| theaters        | -          | 4.10 kB      | 1.6K      | 223.00 B           | 1       | 4.10 kB          |
| users           | -          | 4.10 kB      | 185       | 159.00 B           | 1       | 4.10 kB          |

## Ejercicio 1

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

```
db.movies.find().sort({ _id: -1 }).limit(2)
```

```
[{"_id": "ObjectId('5d947206cf0da3a73e51e729')", "name": "Andrea", "email": "andrea@fakeemail.com", "movie_id": "ObjectId('573a380f2f2313acbd418c')", "text": "Quis officia deserunt mollit anim id est laborum. Porro dolor volupta...", "date": "2012-08-20T23:00:00.000Z"}, {"_id": "ObjectId('5d947206cf0da3a73e51e729')", "name": "Draig", "email": "draig@fakeemail.com", "movie_id": "ObjectId('573a380f2f2313acbd418c')", "text": "Iusto ut autem vel eum iure reprehenderit qui in ea voluptate sed quod non numquam eius modi tempora incidunt ut labore et dolore magni ducimus qui is now being published as, El genet! praesentium unde quod porro, Co...", "date": "1987-02-18T00:19:36.000Z"}]
```

¿Cuántos usuarios tenemos registrados?

```
db.users.count()
```

|     |
|-----|
| 185 |
|-----|

¿Cuántos cines existen en el estado de California?

```
db.theaters.find({ "location.state": "CA" })
```

|      |                  |
|------|------------------|
| 1008 | location: Object |
| 1009 | location: Object |
| 1010 | location: Object |

¿Cuál fue el primer usuario en registrarse?

The screenshot shows a MongoDB query interface with the following parameters:

- Project: { field: 0 }
- Sort: {"\_id": 1}
- Collation: { locale: 'simple' }
- Index Hint: { field: -1 }

Buttons at the top right include Explain, Reset, Find, Max Time MS (6000), Skip (0), Limit (1), and a Find button.

Below the controls, there are buttons for ADD DATA, EXPORT DATA, UPDATE, and DELETE. The results pane shows a single document:

```
_id: ObjectId('59b99db4cfa9a34cd7885b6')
name : "Ned Stark"
email : "sean_beatinggameofthron.es"
password : "$2b$12$UREFwsRuyF0CrqQHk0Lz08HM/jLhgUCNNI39R3AqMjQ74crlJ1Vu"
```

Pagination at the bottom indicates 25 results, page 1 of 1.

¿Cuántas películas de comedia existen en nuestra base de datos?

The screenshot shows a MongoDB query interface with the following parameters:

- Project: {"genres": "Comedy"}
- Sort: {}
- Collation: { locale: 'simple' }
- Index Hint: { field: -1 }

Buttons at the top right include Generate query, Explain, and Reset.

Below the controls, there are buttons for ADD DATA, EXPORT DATA, UPDATE, and DELETE. The results pane shows a single document:

```
_id: ObjectId('573a1390f29313caabcd4803')
plot : "Cartoon figures announce, via comic strip balloons, that they will mov..."
genres : Array (3)
  runtime : 7
```

Pagination at the bottom indicates 25 results, page 1 of 7024.

## Ejercicio 2

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

The screenshot shows a MongoDB query interface with the following parameters:

- Project: { field: 0 }
- Sort: {}
- Collation: { locale: 'simple' }
- Index Hint: { field: -1 }

Buttons at the top right include Options, Max Time MS (60000), Skip (0), Limit (0), and a Find button.

Below the controls, there are buttons for ADD DATA, EXPORT DATA, UPDATE, and DELETE. The results pane shows a single document:

```
_id: ObjectId('573a1397f29313caabce74d3')
plot : "The Tang emperor is betrayed by one of his generals, who installs hims..."
genres : Array (2)
  runtime : 95
  title : "The Shaolin Temple"
  num_mflix_comments : 3
  poster : "https://m.media-amazon.com/images/M/MVSB2WI4NjdINGETnExOS00MDY5LTk1Nj_"
  countries : Array (2)
    fullplot : "The Tang emperor is betrayed by one of his generals, who installs hims..."
    languages : Array (1)
    cast : Array (4)
    directors : Array (1)
    writers : Array (2)
    awards : Object
    lastupdated : "2015-09-07 01:10:10.813000000"
    year : 1982
    imbd : Object
    type : "movie"
    tomatoes : Object
```

Pagination at the bottom indicates 25 results, page 1 of 118.

### 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 a MongoDB query results interface. At the top, there are buttons for 'ADD DATA', 'EXPORT DATA', 'UPDATE', and 'DELETE'. On the right, there are buttons for 'Generate query', 'Explain', 'Reset', and 'Find'. Below these are pagination controls: '25' (selected), '1 - 25 of 166', and navigation arrows. The main area displays a single document in JSON format:

```
_id: ObjectId('573a13acf29313caabd29366')
fullplot: "The manager of the negative assets sector of Life magazine, Walter Mit..."
imdb: Object
year: 2013
plot: "When his job along with that of his co-worker are threatened, Walter t..."
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"
```

## Nivel 2

### Ejercicio 1

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

The screenshot shows a MongoDB query results interface. At the top, there are buttons for 'ADD DATA', 'EXPORT DATA', 'UPDATE', and 'DELETE'. On the right, there are buttons for 'Generate query', 'Explain', 'Reset', and 'Find'. Below these are pagination controls: '25' (selected), '1 - 25 of 22841', and navigation arrows. The main area displays two documents in JSON format:

```
_id: ObjectId('5a9427648b0beebeb69579d0')
name: "Talisa Maegyr"
email: "oona_chapling@gameofthron.es"
movie_id: ObjectId('573a1390f29313caabed41b1')
text: "Rem itaque ad sit rem voluptatibus. Ad fugiat maxime illum optio iure _"
date: 1998-08-22T11:45:03.000+00:00

_id: ObjectId('5a9427648b0beebeb69579d5')
name: "Petyr Baelish"
email: "aidan_gillen@gameofthron.es"
movie_id: ObjectId('573a1390f29313caabed4218')
text: "Quo deserunt ipsam ipsum. Tenerit eos nemo nam sint praesentium minus _"
date: 2001-07-13T19:25:09.000+00:00
```

### Ejercicio 2

¿Cuántos cines existen en cada código postal situados dentro del estado Washington DC (DC)?

The screenshot shows a MongoDB query results interface. At the top, there are buttons for 'ADD DATA', 'EXPORT DATA', 'UPDATE', and 'DELETE'. On the right, there are buttons for 'Generate query', 'Explain', 'Reset', and 'Find'. Below these are pagination controls: '25' (selected), '1 - 3 of 3', and navigation arrows. The main area displays three documents in JSON format:

```
_id: ObjectId('59a47286cfa9a3a73e51e785')
theaterId: 1092
location: Object

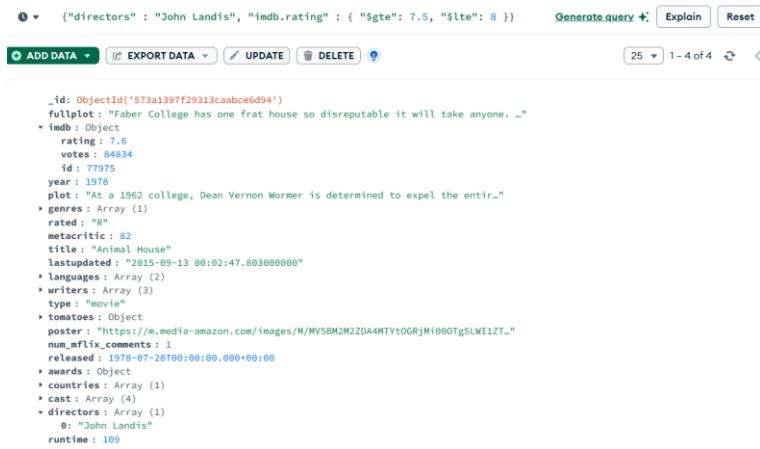
_id: ObjectId('59a47287cfa9a3a73e51ec33')
theaterId: 801
location: Object

_id: ObjectId('59a47287cfa9a3a73e51ecd8')
theaterId: 8500
location: 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.

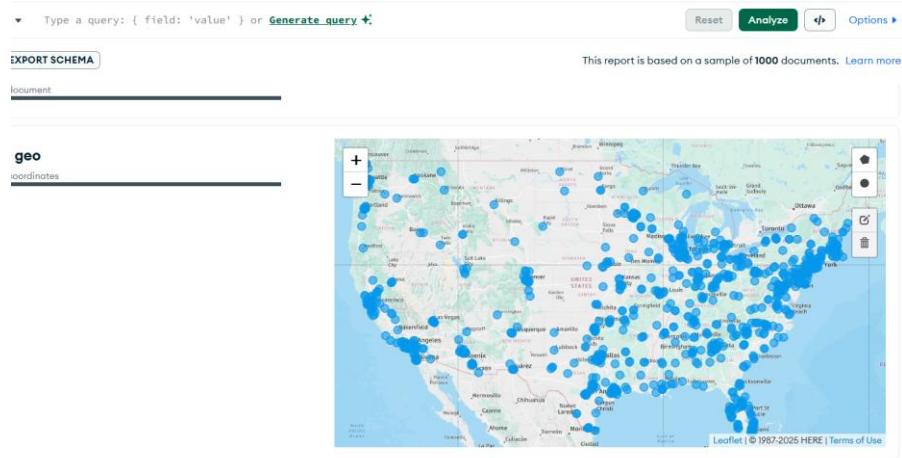


The screenshot shows a MongoDB query interface with the following details:

- Query: `{"directors": "John Landis", "imdb.rating": { "$gte": 7.5, "$lte": 8 }}`
- Results: One document is shown, representing the movie "Animal House".
- Document Fields:
  - `_id: ObjectId('573a1397f29313caabce6d94')`
  - `fulplot: "Faber College has one frat house so disreputable it will take anyone. ..."`
  - `imdb: Object
    - rating: 7.6
    - votes: 84634
    - id: 77975
    - year: 1978
    - plot: "At a 1962 college, Dean Vernon Wormer is determined to expel the entire ..."
    - genres: Array (1)
    - rated: "R"
    - metacritic: 82
    - title: "Animal House"
    - lastupdated: "2015-09-13 00:02:47.803000000"
    - languages: Array (2)
    - writers: Array (3)
    - type: "movie"
    - tomatoes: Object
    - poster: "https://m.media-amazon.com/images/M/MV5BM2M2DA4MTYtOGRjM10BOTg5LWI1ZT..."
    - num_flix_comments: 1
    - released: 1978-07-28T00:00:00.000+00:00`
  - `awards: Object`
  - `countries: Array (1)`
  - `cast: Array (4)`
  - `directors: Array (1)
    - 0: "John Landis"`
  - `runtime: 109`

### Ejercicio 2

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



**Nota:** Para mostrar las ubicaciones de los cines en el mapa, primero se creo un índice geoespacial.