

SPRINT 5

Nivel 1

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

The screenshot shows the MongoDB Compass interface with two main panes. The left pane displays the 'Databases' tab, listing three databases: admin, config, and local. The right pane displays the 'Collections' tab, listing five collections: comments, movies, sessions, theaters, and users. Below the interface, a terminal window shows the command to switch to the 'sprint5' database and the creation of the same five collections.

Local

Databases Performance

CREATE DATABASE

Database Name	Storage Size
admin	20.0KB
config	24.0KB
local	20.0KB

HOST
localhost:27017

CLUSTER
Standalone

EDITION
MongoDB 5.0.30 Community

Filter your data

> admin

> config

> local

+>_MONGOSH

> use sprint5

< 'switched to db sprint5'

sprint5>

Collections

CREATE COLLECTION

Collection Name	Documents	Avg. Doc.
comments	0	-
movies	0	-
sessions	0	-
theaters	0	-
users	0	-

+>_MONGOSH

> db.createCollection("comments")

< { ok: 1 }

> db.createCollection("movies")

< { ok: 1 }

> db.createCollection("sessions")

< { ok: 1 }

> db.createCollection("theaters")

< { ok: 1 }

> db.createCollection("users")

< { ok: 1 }

sprint5>

This collection has no data

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

Import Data

```
> _MONGOSH
> db.createCollection("comments")
< { ok: 1 }
> db.createCollection("movies")
```

Select File

/Users/minu/[PROJECT]/_2025/05_Data Analytics/_SPRINT 5/movies.js

Select Input File Type

JSON CSV

Options

Stop on errors

Importing documents... Stop 11,000 / ~22,336

CANCEL IMPORTING...

Importación de archivos: dentro de cada colección -> click CTA “Import data”, se abre una ventana y dónde puedo elegir el archivo. Repito dentro de cada colección.

_id	name	email	movie_id	text	date
ObjectId("5a9427648b0beebe69579cc")	Andrea Le	andrea_le@fakegmail.com	ObjectId("573a1390f29313caabcd41b1")	Rem officiis eaque repellendus amet eos doloribus. Porro dolor volupta...	2012-03-26T23:20:16.000+00:00
ObjectId("5a9427648b0beebe69579cf")	Greg Powell	greg_powell@fakegmail.com	ObjectId("573a1390f29313caabcd41b1")	Tenetur dolorum molestiae ea. Eligendi praesentium unde quod porro. Co...	1987-02-10T00:29:36.000+00:00
ObjectId("5a9427648b0beebe69579d0")	Talisa Maegyr	oona_chaplin@gameofthron.es	ObjectId("573a1390f29313caabcd41b1")		

Aquí ya vemos los documentos, importados correctamente.

Collection Name ▲	Documents	
comments	50,304	Vemos que hemos importado todos los archivos; rápidamente visualizamos la cantidad de documentos dentro de cada colección.
movies	23,539	
sessions	1	
theaters	1,564	
users	185	

Nivel 1 | Ejercicio 1

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

```
< 'switched to db sprint5'
> db.comments.find().limit(2).pretty()
< { _id: ObjectId("5a9427648b0beebeb69579cc"),
  name: 'Andrea Le',
  email: 'andrea_le@fakegmail.com',
  movie_id: ObjectId("573a1390f29313caabcd418c"),
  text: 'Rem officiis eaque repellendus amet eos doloribus. Porro dolor voluptatum voluptates ',
  date: 2012-03-26T23:20:16.000Z }
{ _id: ObjectId("5a9427648b0beebeb69579cf"),
  name: 'Greg Powell',
  email: 'greg_powell@fakegmail.com',
  movie_id: ObjectId("573a1390f29313caabcd41b1"),
  text: 'Tenetur dolorum molestiae ea. Eligendi praesentium unde quod porro. Commodo nisi sit ',
  date: 1987-02-10T00:29:36.000Z }
sprint5 >
```

Collection Name	Documents
comments	50,304
movies	23,539
sessions	1
theaters	1,564
users	185

¿Cuántos usuarios tenemos registrados?

185 usuarios.

Este dato lo podemos visualizar en el listado de colecciones, y también podemos averiguarlo con el comando countDocuments.

```
> MONGOSH
< { ok: 1 }
> db.createCollection("users")
< { ok: 1 }
> db.users.countDocuments()
< 185
sprint5 >
```

¿Cuál fue el primer usuario en registrarse? Ned Stark

```
> db.users.find().sort({ createdAt: 1 }).limit(1).pretty()
< { _id: ObjectId("59b99db4cfa9a34dcd7885b6"),
  name: 'Ned Stark',
  email: 'sean_bean@gameofthron.es',
  password: '$2b$12$UREFwsRUoyF0CRqGNK0Lz00HM/jLhgUCNNIj9RJAqMUQ74crlJ1Vu' }
```

¿Cuántos cines existen en el estado de California? 169

```
> db.theaters.countDocuments({ "location.address.state": "CA" })
< 169
```

¿Cuántas películas de comedia existen en nuestra base de datos? 7.024

```
> db.movies.countDocuments({genres:"Comedy"})
< 7024
```

Nivel 1 | Ejercicio 2

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

#Lógica:

- Busca (FIND) películas:
 - Año: 1932.
 - Que cumplan una de estas dos condiciones:
 - Género: drama
 - Ó
 - Idioma: Francés.

```
> db.movies.find({  
  year:1932, $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 it away with his hand, but when he looks...',  
  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/MV5BYWY30DE5ZWtEtYjlmYi00NjA4LTk4ZWYtMzBhZDE5MjY0YTYxXkEyXkFqcGdeQXVY...  
  title: 'The Blood of a Poet',  
  lastupdated: '2015-09-16 13:13:05.537000000',  
  languages: [ 'French' ],  
  released: 2010-05-20T00:00:00.000Z,  
  directors: [ 'Jean Cocteau' ],  
  writers: [ 'Jean Cocteau' ],  
  awards: { wins: 1, nominations: 0, text: '1 win.' },  
  year: 1932,  
  imdb: { rating: 7.5, votes: 3903, id: 21331 },  
  countries: [ 'France' ],  
  type: 'movie',  
  tomatoes:  
    { viewer: { rating: 3.9, numReviews: 2865, meter: 86 },  
      dvd: 2009-04-20T00:00:00.000Z  
    }  
  }  
}
```

```
{ _id: ObjectId("573a1392f29313caabcd99a3"),  
  plot: 'Junta is hated by the people in the village where she lives, especially by the women, who suspect her of being a witch. She is driven out of town, and takes to living in the mountains. Eventually she shares the secret of the blue light with the people.',  
  genres: [ 'Drama', 'Fantasy', 'Mystery' ],  
  runtime: 85,  
  cast:  
    [ 'Leni Riefenstahl',  
      'Mathias Wieman',  
      'Beni Fèhrer',  
      'Max Holzboer' ],  
  poster: 'https://m.media-amazon.com/images/M/MV5BNTQ1NTMzMTQtODIyYS00MTAxLWE1NTgtZGFkZTE2YmZkZmNjXkEyXkFqcGdeQXVY...  
  title: 'The Blue Light',  
  fullplot: 'Junta is hated by the people in the village where she lives, especially by the women, who suspect her of being a witch. She is driven out of town, and takes to living in the mountains. Eventually she shares the secret of the blue light with the people.',  
  languages: [ 'German', 'Italian' ],  
  released: 1934-05-08T00:00:00.000Z,  
  directors: [ 'Leni Riefenstahl', 'Bèla Balèzs' ],  
  writers: [ 'Bèla Balèzs', 'Leni Riefenstahl (story)' ],  
  awards: { wins: 1, nominations: 1, text: '1 win & 1 nomination.' },  
  lastupdated: '2015-08-03 01:02:12.350000000',  
  year: 1932,  
  imdb: { rating: 7, votes: 727, id: 22694 },  
  countries: [ 'Germany' ],  
  type: 'movie',  
  tomatoes:  
    { viewer: { rating: 3.7, numReviews: 325, meter: 61 },  
      dvd: 2006-08-22T00:00:00.000Z,  
      critic: { rating: 3.5, reviews: 1, meter: 58 }  
    }  
  }  
}
```

Nivel 1 | Ejercicio 3

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

#Lógica:

- películas estadounidenses (countries: "USA")
- que tengan entre 5 y 9 premios (awards.wins: greater-equal: 5, less-equal than: 9)
- producidas entre 2012 y 2014 (year: { \$gte: 2012, \$lte: 2014 })

```
> db.movies.find ({  
  countries: "USA",  
  "awards.wins": {$gte:5, $lte:9},  
  year: {$gte:2012, $lte:2014}  
})  
< { _id: ObjectId("573a13acf29313caabd29366"),  
  fullplot: 'The manager of the negative assets sector of Life magazine, Walter Mitty, not going anywhere but from his home to his job and vice-versa. He is anxious about the recently hired Cheryl Melhoff but he is too shy to invite her on a date to release its last printed edition and the loathsome manager of transition T. This has been the liaison between the magazine and the mysterious independent photojournalist Sean. Sean also suggests to the senior management the use of a negative that is missing. Walter has no means to contact Sean and finds a clue down in the beginning of an unbelievable adventure.',  
  imdb: { rating: 7.4, votes: 211230, id: 359950 },  
  year: 2013,  
  plot: 'When his job along with that of his co-worker are threatened, Walter's adventure more extraordinary than anything he could have ever imagined.',  
  genres: [ 'Adventure', 'Comedy', 'Drama' ],  
  rated: 'PG',  
  metacritic: 54,  
  title: 'The Secret Life of Walter Mitty',  
  lastupdated: '2015-08-31 00:10:51.747000000',  
  languages: [ 'English', 'Spanish', 'Icelandic' ],  
  writers:  
  [ 'Steve Conrad (screenplay)',  
    'Steve Conrad (screen story by)',  
    'James Thurber (based on the short story by)' ],  
  type: 'movie'
```

```
{ _id: ObjectId("573a13b5f29313caabd45772"),
  plot: 'After their cave is destroyed, a caveman family must trek through',
  genres: [ 'Animation', 'Adventure', 'Comedy' ],
  runtime: 98,
  metacritic: 55,
  rated: 'PG',
  cast:
    [ 'Nicolas Cage',
      'Emma Stone',
      'Ryan Reynolds',
      'Catherine Keener' ],
  poster: 'https://m.media-amazon.com/images/M/MV5BMTcyOTc20TA1Ml5BMl5BanB
  title: 'The Croods',
  fullplot: 'The Croods is a prehistoric comedy adventure that follows the
raveling across a spectacular landscape, the Croods discover an incredible
  languages: [ 'English' ],
  released: 2013-03-22T00:00:00Z,
  directors: [ 'Kirk De Micco', 'Chris Sanders' ],
  writers:
    [ 'Chris Sanders (screenplay)',
      'Kirk De Micco (screenplay)',
      'John Cleese (story)',
      'Kirk De Micco (story)',
      'Chris Sanders (story)' ],
  awards:
    { wins: 8,
      nominations: 39,
      text: 'Nominated for 1 Oscar. Another 7 wins & 39 nominations.' },
  lastupdated: '2015-09-10 17:45:48.560000000',
  year: 2013,
  imdb: { rating: 7.3, votes: 134568, id: 481499 },
  countries: [ 'USA' ],
  type: 'movie',
```

```
> db.movies.countDocuments({
  countries:"USA",
  "awards.wins": {$gte:5, $lte:9},
  year: {$gte:2012, $lte:2014}
})
< 166
```

Nos devuelve mucha cantidad de documentos, hacemos un count para saber cuántas películas cumplen esa condición. **166 películas.**

Nivel 2 | Ejercicio 1

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

#lógica:

- count comentarios.
- \$regex busca correos que terminen en @gameofthron.es (busca patrones que empiezen, terminen o contengan esa condición)
- \. es necesario para indicar un punto literal
- i hace la búsqueda insensible a mayúsculas/minúsculas

```
> db.comments.countDocuments ({
  email: { $regex: /@gameofthron\.es$/i }
})
< 22841
```

Nivel 2 | Ejercicio 2

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

#Lógica:

- match: cines que el estado es DC
- group: cines que tengan el mismo zip code.

```
> db.theaters.aggregate ([
  {
    $match: { "location.address.state": "DC" }
  },
  {
    $group: {
      _id:"$location.address.zipcode",
      total_teathers: { $sum:1 }
    }
  },
])
< { _id: '20010', total_teathers: 1 }
{ _id: '20016', total_teathers: 1 }
{ _id: '20002', total_teathers: 1 }
```

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.

#Lógica:

- Buscar (find)
- directors: John Landis
- imdb: gte: 7,5 - lte: 8

```
> 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 anyone. It has a second one ful',  
    can stand them except Dean Wormer. The dean enlists the help of the second frat to get the boys of Delta Ho',  
    oming parade to end all parades for all time.',  
    imdb: { rating: 7.6, votes: 84834, id: 77975 },  
    year: 1978,  
    plot: 'At a 1962 college, Dean Vernon Wormer is determined to expel the entire Delta Tau Chi Fraternity,',  
    genres: [ 'Comedy' ],  
    rated: 'R',  
    metacritic: 82,  
    title: 'Animal House',  
    lastupdated: '2015-09-13 00:02:47.803000000',  
    languages: [ 'English', 'Italian' ],  
    writers: [ 'Harold Ramis', 'Douglas Kenney', 'Chris Miller' ],  
    type: 'movie',  
    tomatoes:  
        { website: 'http://www.animalhouse.com/',  
            viewer: { rating: 3.8, numReviews: 184490, meter: 89 },  
            dvd: 1998-02-24T00:00:00.000Z,  
            critic: { rating: 7.7, numReviews: 46, meter: 91 },  
            lastUpdated: '2015-09-13T17:40:34.000Z',  
            consensus: 'The talents of director John Landis and Saturday Night Live\\\'s irrepressible John Belushi',  
            tinues to resonate.',  
            rotten: 4,  
            production: 'Universal Pictures',  
            fresh: 42 },  
    poster: 'https://m.media-amazon.com/images/M/MV5BM2M2ZDA4MTYt0GRjMi000Tg5LWI1ZTUtmjQxZTc2NWZjNDFkXkEyXkF',  
    num_mflix_comments: 1,  
    released: 1978-07-28T00:00:00.000Z,  
    awards: { wins: 2, nominations: 1, text: '2 wins & 1 nomination.' },  
    countries: [ 'USA' ],  
    cast:  
        [ 'Tom Hulce',  
        'Stephen Furst',  
        'Mark Metcalf',  
        'Mary Louise Weller' ],  
    directors: [ 'John Landis' ]},
```

```

{ _id: ObjectId("573a1397f29313caabce76f7"),
  plot: 'Jake Blues, just out from prison, puts together his old band to save the Catholic home where he and',
  genres: [ 'Action', 'Comedy', 'Crime' ],
  runtime: 133,
  rated: 'R',
  cast: [ 'John Belushi', 'Dan Aykroyd', 'James Brown', 'Cab Calloway' ],
  num_mflix_comments: 1,
  poster: 'https://m.media-amazon.com/images/M/MV5BYTdlMDExOGUtN2I3MS00MjY5LWE1NTAtYzc3MzIxN2M30WY1XkEyXkFqc',
  title: 'The Blues Brothers',
  fullplot: 'After the release of Jake Blues from prison, he and brother Elwood go to visit "The Penguin", t',
  'the Archdiocese will stop supporting the school and will sell the place to the Education Authority. The onl',
  'aid within 11 days. The Blues Brothers want to help, and decide to put their blues band back together and ra',
  'sion from God" they seem to make more enemies along the way. Will they manage to come up with the money in t',
  languages: [ 'English' ],
  released: 1980-06-20T00:00:00Z,
  directors: [ 'John Landis' ],
  writers: [ 'Dan Aykroyd', 'John Landis' ],
  awards: { wins: 1, nominations: 0, text: '1 win.' },
  lastupdated: '2015-09-01 00:09:39.130000000',
  year: 1980,
  imdb: { rating: 7.9, votes: 131885, id: 80455 },
  countries: [ 'USA' ],
  type: 'movie',
  tomatoes:
    { website: 'http://bluesbrothers.com/',
      viewer: { rating: 3.7, numReviews: 254544, meter: 93 },
      dvd: 2005-08-30T00:00:00Z,
      critic: { rating: 7.1, numReviews: 52, meter: 87 },
      lastUpdated: 2015-09-13T18:01:41.000Z,
      consensus: 'Too over the top for its own good, but ultimately rescued by the cast\'s charm, director Jo',
      rotten: 7,
      production: 'Universal Pictures',
      fresh: 45 } }

```

Hacemos un count para saber cuántas películas son:

```

> db.movies.countDocuments({
  directors:"John Landis",
  "imdb.rating": { $gte:7.5, $lte:8 }
})
< 4

```

Nivel 3 | Ejercicio 2

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

- Schemas -> analyse modele -> desplegar location. Pero no veo el mapa

The screenshot shows the MongoDB Compass interface with the database 'sprint5' and collection 'theaters' selected. The 'Schema' tab is active and highlighted with a pink circle. Below it, the 'location' field is also circled in pink. The schema details for each field are listed:

- location**: Document with 2 nested fields.
- address**: Document with 5 nested fields.
- geo**: Document with 2 nested fields. (A crying emoji is placed here)
- coordinates**: Array lengths: min: 2 average: 2.0 max: 2
- type**: Point

A portrait of Don Draper from Mad Men is overlaid on the right side of the interface.