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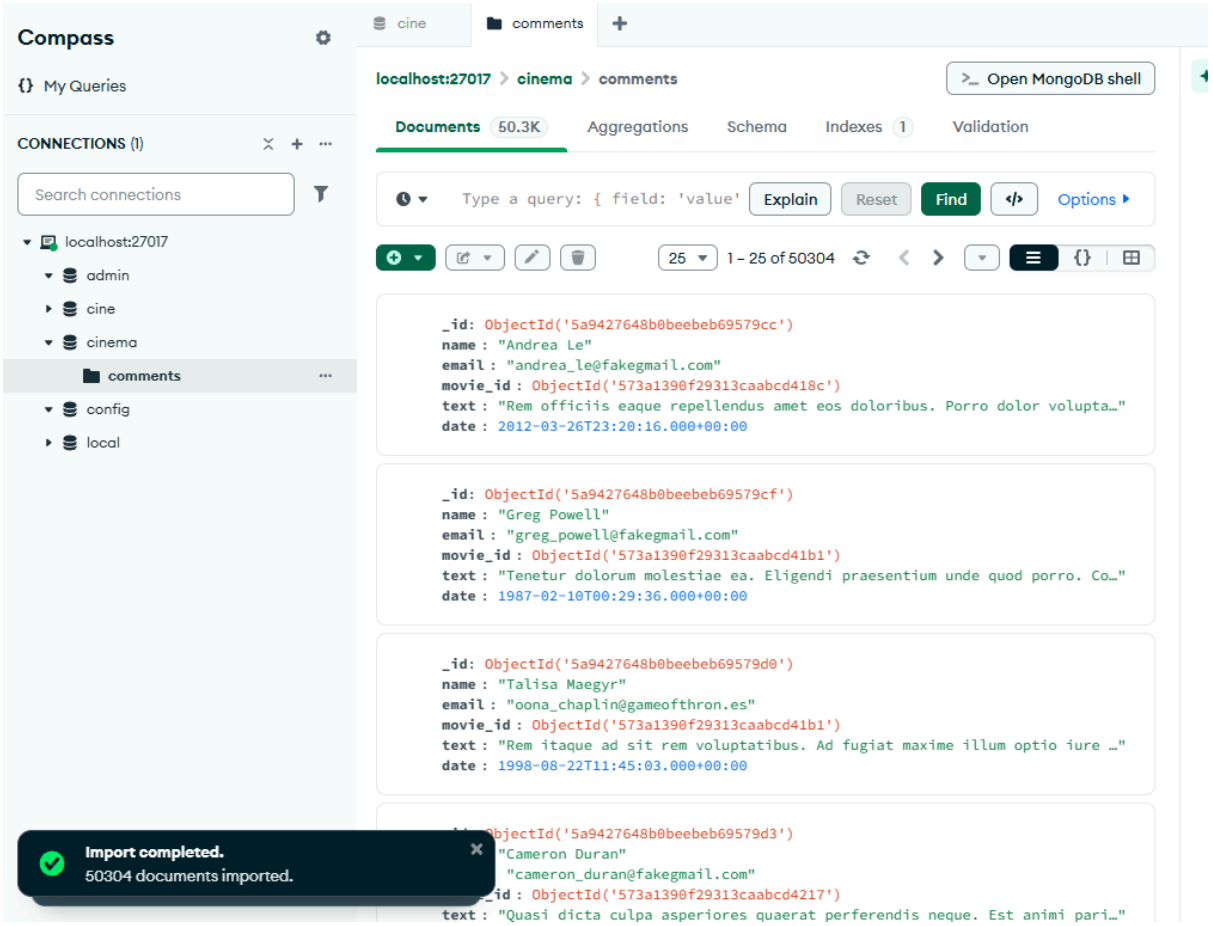
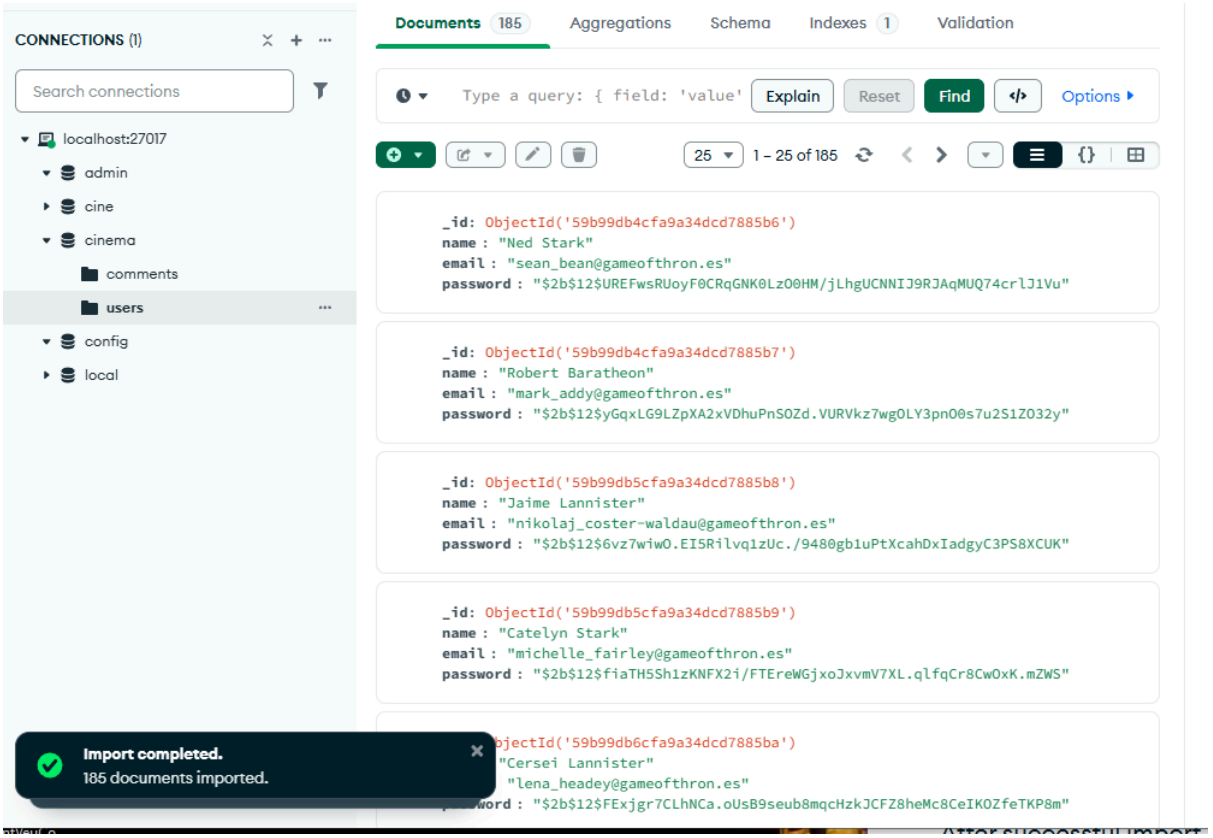
SPRINT 5

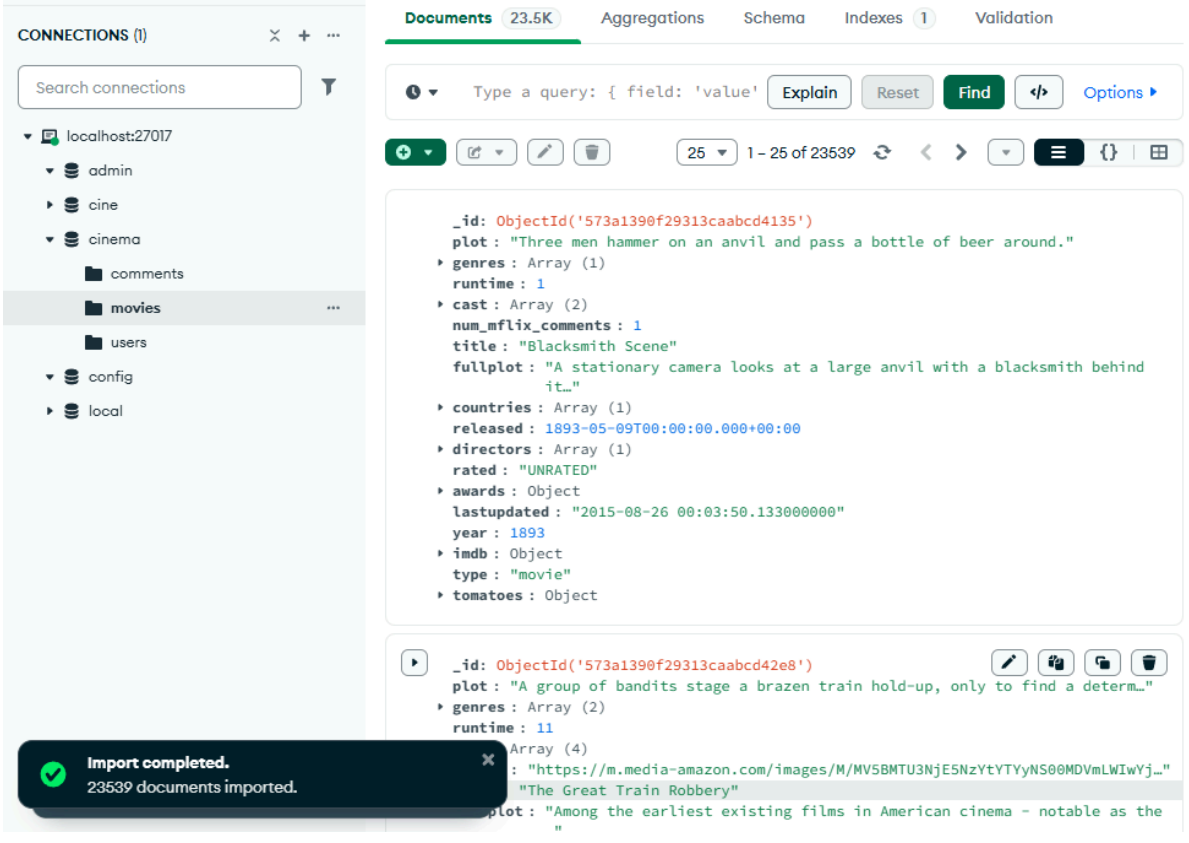
NIVELL 1

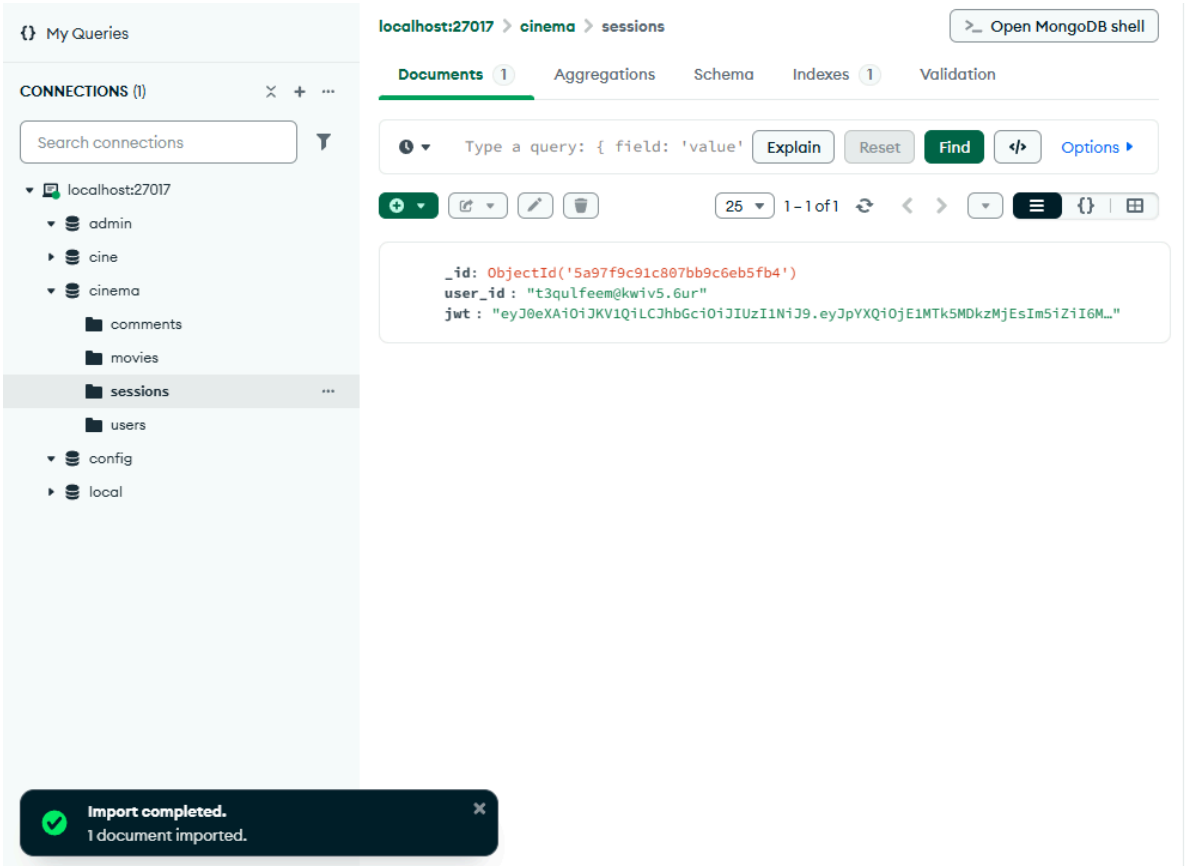
Crea una base de dades amb MongoDB utilitzant com a col·leccions els arxius adjunts.

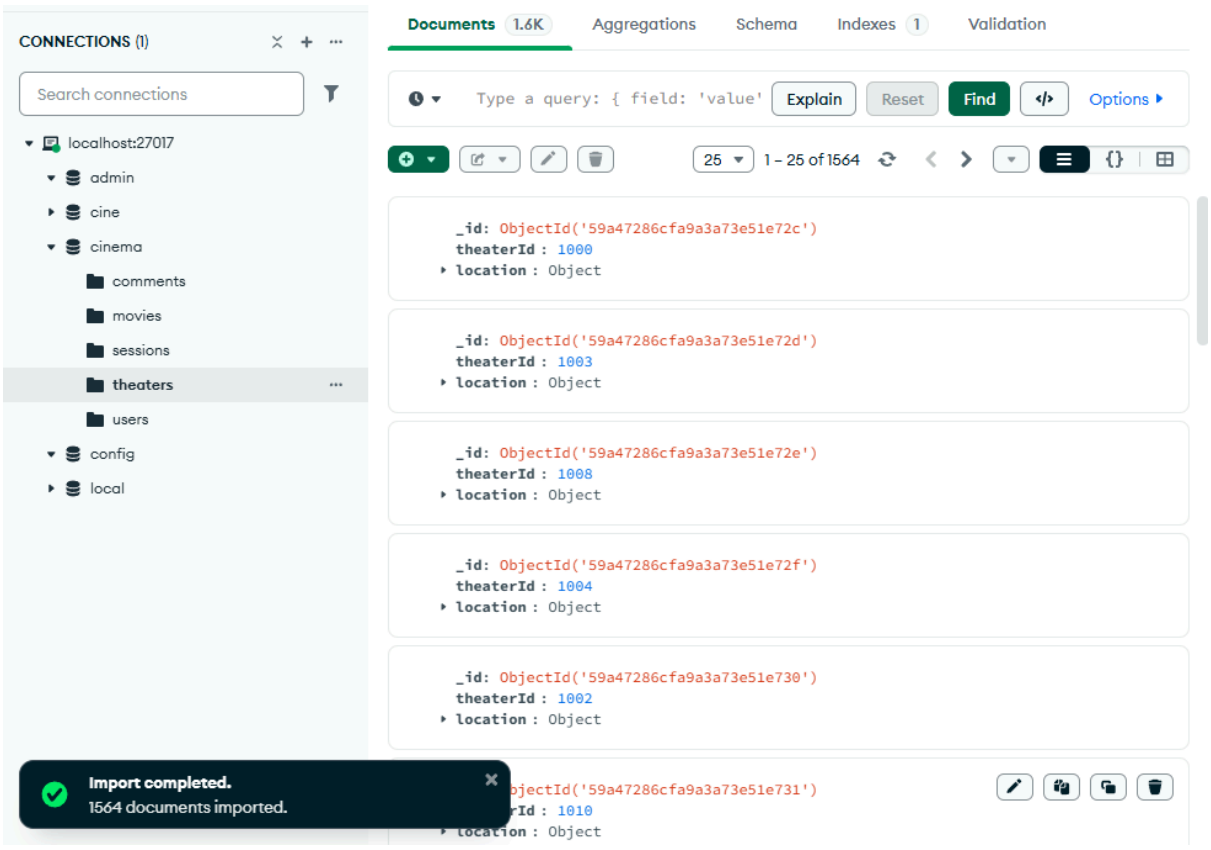
Carreguem les dades:




CONNECTIONS (1)
Search connections
localhost:27017
admin
cine
cinema
comments
users
config
local
Documents 185
Aggregations
Schema
Indexes 1
Validation
Type a query: { field: 'value' }
Explain
Reset
Find
Options
25
1 – 25 of 185
_id: ObjectId('59b99db4cfa9a34dcd7885b6')
name : "Ned Stark"
email : "sean_bean@gameofthron.es"
password : "$2b$12$UREFwsRUoyF0CRqGNK0LzO0HM/jLhgUCNNIJ9RJAqMUQ74crlJ1Vu"
_id: ObjectId('59b99db4cfa9a34dcd7885b7')
name : "Robert Baratheon"
email : "mark_addy@gameofthron.es"
password : "$2b$12$yGqxLG9LZpXA2xVDhuPnSOZd.VURVkz7wgOLY3pnO0s7u2S1ZO32y"
_id: ObjectId('59b99db5cfa9a34dcd7885b8')
name : "Jaime Lannister"
email : "nikolaj_coster-waldau@gameofthron.es"
password : "$2b$12$6vz7wiwO.EI5Rilvq1zUc./9480gb1uPtXcahDxIadgyC3PS8XCUK"
_id: ObjectId('59b99db5cfa9a34dcd7885b9')
name : "Catelyn Stark"
email : "michelle_fairley@gameofthron.es"
password : "$2b$12$fiaTH5Sh1zKNFX2i/FTEreWGjxoJxvmV7XL.qlfqCr8CwOxK.mZWS"
Import completed.
185 documents imported.


CONNECTIONS (1)
Search connections
localhost:27017
admin
cine
cinema
comments
movies
users
config
local
Documents 23.5K
Aggregations
Schema
Indexes 1
Validation
Type a query: { field: 'value' }
Explain
Reset
Find
Options
25
1 – 25 of 23539
_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 large anvil with a blacksmith behind it…"
countries : Array (1)
released : 1893-05-09T00:00:00.000+00:00
directors : Array (1)
rated : "UNRATED"
awards : Object
lastupdated : "2015-08-26 00:03:50.133000000"
year : 1893
imdb : Object
type : "movie"
tomatoes : Object
_id: ObjectId('573a1390f29313caabcd42e8')
plot : "A group of bandits stage a brazen train hold-up, only to find a determ…"
genres : Array (2)
runtime : 11
Array (4)
: "https://m.media-amazon.com/images/M/MV5BMTU3NjE5NzYtYTYyNS00MDVmLWIwYj…"
"The Great Train Robbery"
plot : "Among the earliest existing films in American cinema - notable as the
"
Import completed.
23539 documents imported.

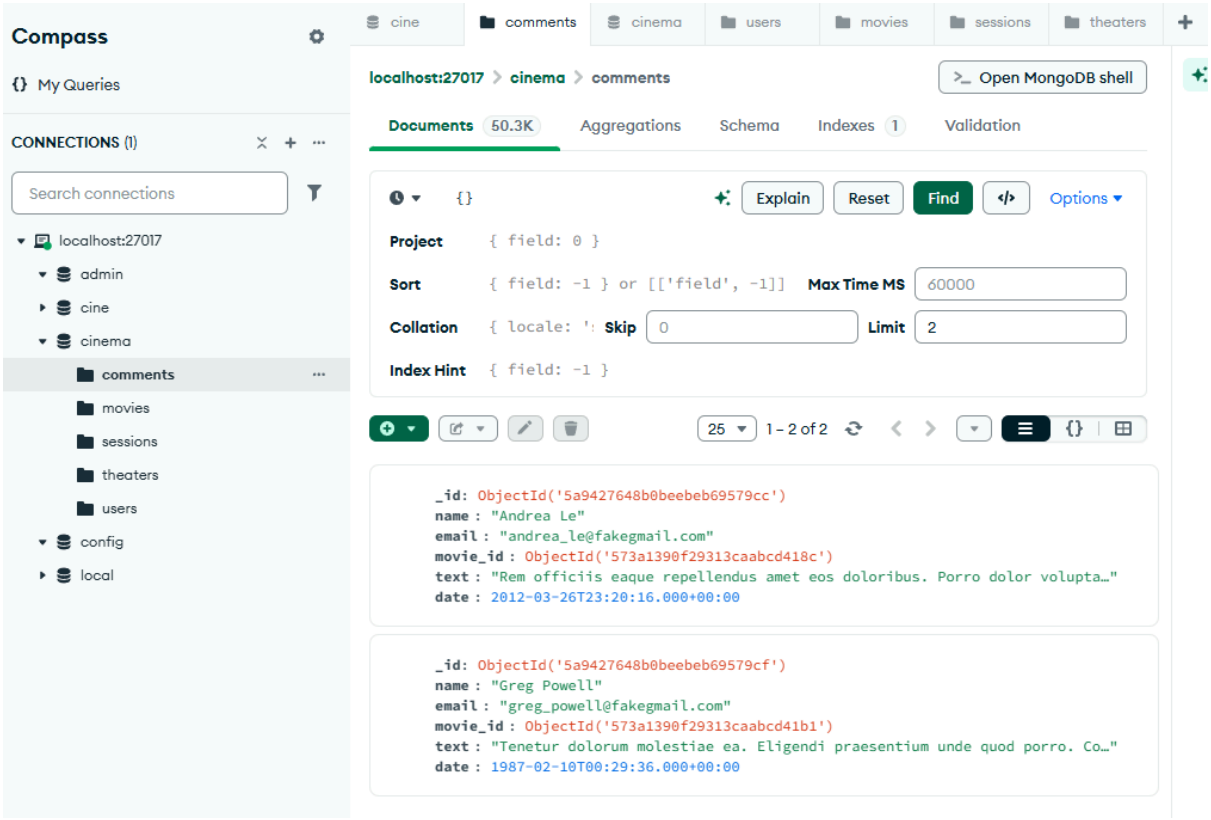

My Queries
CONNECTIONS (1)
Search connections
localhost:27017
admin
cine
cinema
comments
movies
sessions
users
config
local
localhost:27017 > cinema > sessions
Open MongoDB shell
Documents 1
Aggregations
Schema
Indexes 1
Validation
Type a query: { field: 'value'
Explain
Reset
Find
Options
25
1 - 1 of 1
_id: ObjectId('5a97f9c91c807bb9c6eb5fb4')
user_id : "t3qulfeem@kwiv5.6ur"
jwt : "eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJpYXQiOjE1MTk5MDkzMjEsIm5iZiI6M…"
Import completed.
1 document imported.


CONNECTIONS (1)
Search connections
localhost:27017
admin
cine
cinema
comments
movies
sessions
theaters
users
config
local
Documents 1.6K
Aggregations
Schema
Indexes 1
Validation
Type a query: { field: 'value'
Explain
Reset
Find
Options
25
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
Import completed.
1564 documents imported.

EXERCICI 1

- Mostra els 2 primers comentaris que hi ha en la base de dades.

Hi han dos formes de fer-ho. La primera, una mica més ràpida sense necessitat d'escriure consulta, utilitzant el "filter input" buit y limitant els resultats a 2, tal que:



La segona opció, i la seleccionada per al desenvolupament de l'activitat, amb consultes a través del MongoDB Shell:

- Quants usuaris tenim registrats?

```
> db.users.countDocuments({})
< 185
cinema >
```

- Quants cinemes hi ha en l'estat de Califòrnia?

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

- Quin va ser el primer usuari/ària en registrar-se?

```
> db.users.find({}).sort({ _id: 1 }).limit(1)
< {
    _id: ObjectId('59b99db4cfa9a34dcd7885b6'),
    name: 'Ned Stark',
    email: 'sean_bean@gameofthron.es',
    password: '$2b$12$UREFwsRUoyF0CRqGNK0LzO0HM/jLhgUCNNIJ9RJAqMUQ74crlJ1Vu'
  }
cinema >
```

sort _id: 1 → ordena de forma ascendent, el contrari es fer sort _id: -1.

- Quantes pel·lícules de comèdia hi ha en la nostra base de dades?

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

L'atribut genres es un array que permet que mes de un genere apareixi. Si volem pel·lícules únicament de comedia, y no etiquetades amb més gèneres faríem:

```
> db.movies.countDocuments({ "genres": ["Comedy"] })
< 1147
cinema >
```

EXERCICI 2: Mostra'm tots els documents de les pel·lícules produïdes en 1932, però que el gènere sigui drama o estiguin en francès.

```
> 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 life and starts talking.
    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/MV5BYWY3ODE5ZWEtYjlmYi00NjA4LTk4ZWYtMzBhZDE5MjY0YTYxXkEyXkFqcGdeQXVyNzI4MDMyMTU@._V1_
    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,
```

```
> db.movies.countDocuments({
    year: 1932,
    $or: [
      { genres: "Drama" },
      { languages: "French" }
    ]
  })
< 18
```

EXERCICI 3: Mostra'm tots els documents de pel·lícules estatunidenques que tinguin entre 5 i 9 premis que van ser produïdes entre 2012 i 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, has been working for sixteen years for the magazine and
    imdb: {
      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 tha
    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',
    tomatoes: {
      website: 'http://WalterMitty.com',
      viewer: {
        rating: 3.7,
        numReviews: 77663,
        meter: 70
      },
```

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

$gte: >=
$lte: <=

NIVELL 2

EXERCICI 1: Compte quants comentaris escriu un usuari/ària que utilitza "GAMEOFTHRON.ES" com a domini de correu electrònic.

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

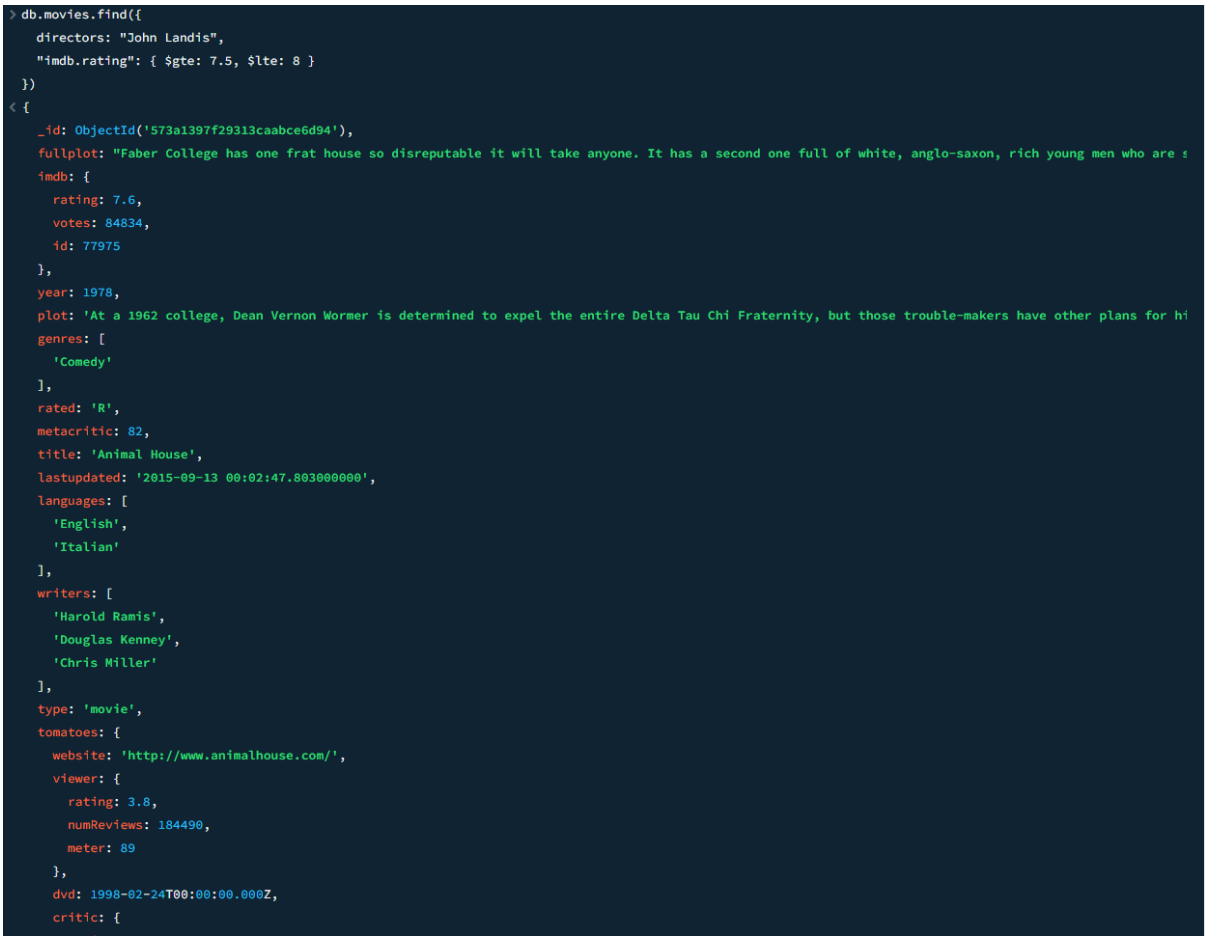
/…/ → busca tot un patró en el documents amb tot el que està dins
\ . → Un “.” en qualsevol carácter en mongosh, si l’escapem, és a dir, posem la barra davant, indiquem que es un punt
$ → és l’ancla final, despres d’aquest patró no pot haver res més
i → insensible a majúscules/minúscules

EXERCICI 2: Quants cinemes hi ha en cada codi postal situats dins de l'estat Washington D. C. (DC)?

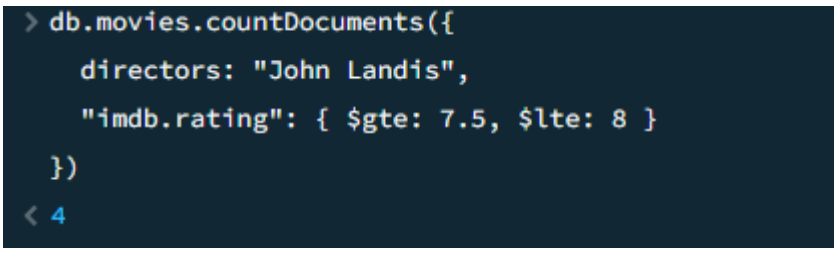
```
> db.theaters.aggregate([ // Pipeline
    {
      $match: { "location.address.state": "DC" }
    },
    {
      $group: {
        _id: "$location.address.zipcode",
        count: { $sum: 1 }
      }
    },
    {
      $sort: { count: -1 } // En ordre descendent
    },
    {
      $project: { //aquesta etapa pot incloure, transformar o excloure camps
        zipcode: "$_id",
        count: 1,
        _id: 0
      } // per defecte mostra_id, ara mostrarà zipcode
    }
  ])
< {
    count: 1,
    zipcode: '20002'
  }
  {
    count: 1,
    zipcode: '20010'
  }
  {
    count: 1,
    zipcode: '20016'
  }
cinema >
```

NIVELL 3

EXERCICI 1: Troba totes les pel·lícules dirigides per John Landis amb una puntuació IMDb (Internet Movie Database) d'entre 7,5 i 8.

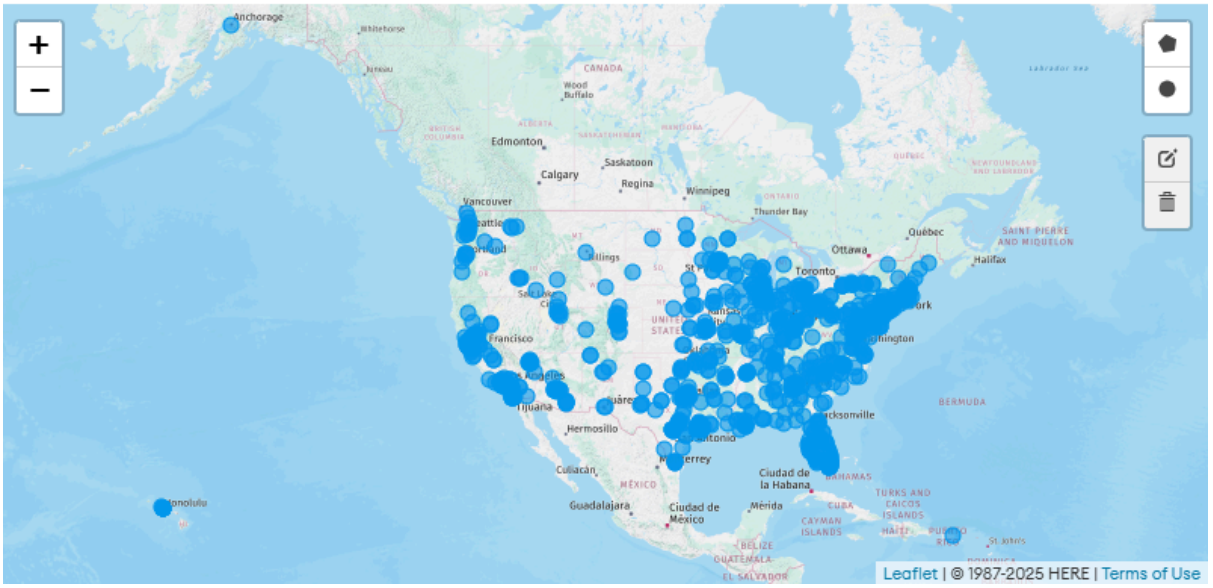


```
> db.movies.find({
    directors: "John Landis",
    "imdb.rating": { $gte: 7.5, $lte: 8 }
  })
< {
    _id: ObjectId('573a1397f29313caabce6d94'),
    fullplot: "Faber College has one frat house so disreputable it will take anyone. It has a second one full of white, anglo-saxon, rich young men who are s
    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, but those trouble-makers have other plans for hi
    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: {
```



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

EXERCICI 2: Mostra en un mapa la ubicació de tots els teatres de la base de dades.



Gràcies al format GeoJSON podem fer aquest visualització de les coordenades en un mapa desde l'apartat schema.