

NIVELL 1

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

localhost:27017

My Queries | users | theaters | movies | sessions | comments | Sprint_9

localhost:27017 > Sprint_9

+ Create collection | Refresh

View | Sort by: Collection Name

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

- Exercici 1

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

Databases | Search | Sprint_9 | comments | movies | sessions | theaters | users

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

Project: { field: 0 } | Sort: { field: -1 } or [['field', -1]] | Collation: { locale: 'simple' } | Index Hint: { field: -1 }

Max Time MS: 60000 | Skip: 0 | Limit: 2

ADD DATA | EXPORT DATA | UPDATE | DELETE

1 - 2 of 2

```
{ "_id": "ObjectId('5a9427648b0beeb69579cc')", "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('5a9427648b0beeb69579cf')", "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" }
```

- Quants usuaris tenim registrats?

Podemos ver los usuarios directamente arriba de la colección:

localhost:27017 > Sprint_9 > users

Documents 185 Aggregations Schema Indexes 1 Validation

Generate query + Explain Reset Find

ADD DATA EXPORT DATA UPDATE DELETE

1 - 20 of 185

`{`

`_id: ObjectId('59b99db4cfa9a34dcd7885b6')`
`name: "Ned Stark"`

O generar una agregación:

Documents 185 **Aggregations** Schema Indexes 1 Validation

\$count Generate aggregation

Untitled - modified SAVE + CREATE NEW EXPORT TO LANGUAGE PRE

185 Documents in the collection

Preview of documents

`_id: ObjectId('59b99db4cfa9a34dcd7885b6')`
`name: "Ned Stark"`
`email: "sean_bean@gameofthron.es"`
`password: "$2b$12$UREFwsRUoyF0CRqGNK0LzO0HM/j...`

`_id: ObjectId('59b99db4cfa9a34dcd7885b7')`
`name: "Robert Baratheon"`
`email: "mark_addy@gameofthron.es"`
`password: "$2b$12$yGqxLG9LZpXA2xVDhuPnS0Zd.VU...`

`_id: ObjectId('59b99db5cfa9a34dcd7885b8')`
`name: "Jaime Lannister"`
`email: "nikolaj_coster-wal"`
`password: "$2b$12$6vz7w1w0"`

Stage1 \$count

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

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

Usuarios : 185

+ Add Stage

Respuesta: Tenemos registrados 185 usuarios.

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

localhost:27017 > Sprint_9 > theaters

Documents 1.6K Aggregations Schema Indexes 1 Validation

\$match \$count

Generate aggregation ↗

Untitled - modified

SAVE

+ CREATE NEW

EXPORT TO LANGUAGE

PREVIEW

Stage 1 \$match



```
1 {
2   "location.address.state": "CA"
3 }
```

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

```
_id: ObjectId('59a47286cfa9a3a73e51e72e')
theaterId: 1008
location: Object
  address: Object
    street1: "1621 E Monte Vista Ave"
    city: "Vacaville"
    state: "CA"
    zipcode: "95688"
  geo: Object
```

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

Stage 2 \$count



```
1 /**
2  * Provide the field name for the count.
3  */
4 'Cinemas in California'
```

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

```
Cinemas in California: 169
```

Resposta: Hay 169 cines en el estado de California.

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

localhost:27017 > Sprint_9 > users

Documents 185 Aggregations Schema Indexes 1 Validation

Generate query + Explain Reset Find </>

Project { field: 0 }

Sort { _id: 1 }

Collation { locale: 'simple' }

Index Hint { field: -1 }

Max Time MS 60000

Skip 0 Limit 1

ADD DATA EXPORT DATA UPDATE DELETE

1 - 1 of 1

```
{
  "_id": ObjectId("59b99db4cfa9a34dcd7885b6"),
  "name": "Ned Stark",
  "email": "sean_bean@gameofthron.es",
  "password": "$2b$12$UREFwsRUoyF0CRqGNK0Lz00HM/jLhgUCNNIJ9RJAqMUQ74crLJ1Vu"
}
```

CANCEL

MONGOSH:

```
> ObjectId("59b99db4cfa9a34dcd7885b6").getTimestamp()
< 2017-09-13T21:05:56.000Z
```

Resposta: El primer usuario en registrarse fue Ned Stark, el 13/9/2017. El último usuario en registrarse fue foo, el 24/10/2019:

Documents 185 Aggregations Schema Indexes 1 Validation

Project { field: 0 }

Sort { _id: -1 }

Collation { locale: 'simple' }

Index Hint { field: -1 }

ADD DATA EXPORT DATA UPDATE DELETE

```
1 _id: ObjectId('5db1c37e4a68c31f10cf0a9f')
2 name: "foo"
3 email: "foobaz@bar.com"
4 password: "foobaz"
5 > preferences: Object
```

```
>_MONGOSH
> ObjectId("5db1c37e4a68c31f10cf0a9f").getTimestamp()
< 2019-10-24T15:30:06.000Z
```

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

Documents 23.5K Aggregations Schema Indexes 1 Validation

▼ \$match \$count Generate aggregation

Untitled - modified SAVE + CREATE NEW </> EXPORT TO LANGUAGE PF

+

Stage 1 \$match

```
1 {
2   genres: "Comedy"
3 }
```

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

```
{
  "_id": ObjectId('573a1391f29313caabcd6ea2'),
  "plot": "The simple-minded son of a rich financier must find his own way in the...",
  "genres": Array (1)
    0: "Comedy"
  "runtime": 77
  "cast": Array (4)
  "num_mflix_comments": 2
  "poster": "https://m.media-
```

+

Stage 2 \$count

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

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

```
{
  "Comedy movies": 7024
}
```

Respuesta: Hay 7024 películas de comedia en nuestra base de datos.

Exercici 2

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

Documents 23.5K Aggregations Schema Indexes 1 Validation

`{year: 1932, $or: [{languages: "French"}, {genres: "Drama"}]}` [Generate query](#) [Explain](#) [Reset](#)

[ADD DATA](#) [EXPORT DATA](#) [UPDATE](#) [DELETE](#) 1 - 18 of 18

```
_id: ObjectId('573a1392f29313caabcd99a3')
plot: "Junta is hated by the people in the village where she lives, especiall..."
genres: Array (3)
  0: "Drama"
  1: "Fantasy"
  2: "Mystery"
runtime: 85
cast: Array (4)
poster: "https://m.media-amazon.com/images/M/MV5BNTQ1NTMzMTQtODIyYS00MTAxLWE1NT..."
title: "The Blue Light"
fullplot: "Junta is hated by the people in the village where she lives, especiall..."
languages: Array (2)
  0: "German"
  1: "Italian"
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
countries: Array (1)
  type: "movie"
tomatoes: Object
```

```
_id: ObjectId('573a1392f29313caabcd99e3')
plot: "A young French soldier in World War I is overcome with guilt when he k..."
genres: Array (1)
runtime: 76
cast: Array (4)
num_mflix_comments: 2
poster: "https://m.media-amazon.com/images/M/MV5BYzJlMDZjM2QtNWU4Ny00ZGRiLTljNj..."
```

Respuesta: hay 18 películas producidas en 1932 cuyo género es drama o cuyo idioma es francés.

- 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.

Documents 23.5K Aggregations Schema Indexes 1 Validation

⌵

```
{countries: "USA",
"awards.wins": {$gte: 5, $lte: 9},
year: {$gte: 2012, $lte: 2014}
}
```

💡

Generate query ⚙️

Explain

Reset

Find

➕ ADD DATA

📄 EXPORT DATA

✎ UPDATE

🗑 DELETE

1 - 20 of 166 ↻ ⏪

```
_id: ObjectId('573a13b5f29313caabd45772')
plot: "After their cave is destroyed, a caveman family must trek through an u..."
▶ genres: Array (3)
runtime: 98
metacritic: 55
rated: "PG"
▶ cast: Array (4)
poster: "https://m.media-amazon.com/images/M/MV5BMTcyOTc2OTA1Ml5BMl5BanBnXkFtZT..."
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)
▶ writers: Array (5)
▼ awards: Object
  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: Object
▼ countries: Array (1)
  0: "USA"
type: "movie"
▶ tomatoes: Object
```

```
_id: ObjectId('573a13b9f29313caabd4dd15')
fullplot: "In 1938, the young girl Liesel Meminger is traveling by train with her..."
▶ imdb: Object
year: 2013
plot: "While subjected to the horrors of World War II Germany, young Liesel f..."
▶ genres: Array (2)
rated: "PG-13"
metacritic: 53
```

Respuesta: hay 166 películas producidas en Estados Unidos entre 2012 y 2014 que tienen entre 5 y 9 premios.

NIVELL 2

- Exercici 1

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

Documents 50.3K Aggregations Schema Indexes 1 Validation

▼ \$match \$count Generate aggregation

Untitled - modified SAVE + CREATE NEW EXPORT TO LANGUAGE

Stage 1 \$match

```
1 {
2   email: {$regex: "gameofthron.es"}
3 }
```

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

```
{
  "_id": ObjectId('5a9427648b0beebeb69579d5'),
  "name": "Petyr Baelish",
  "email": "aidan_gillen@gameofthron.es",
  "movie_id": ObjectId('573a1390f29313caabcd4218'),
  "text": "Quo deserunt ipsam ipsum. Tenetur eos nemo nam sint praesentium minus ...",
  "date": 2001-07-13T19:25:09.000+00:00
}
```

Stage 2 \$count

```
1 /**
2  * Provide the field name for the count.
3  */
4 'Comments from @GameOfThrone'
```

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

```
Comments from @GameOfThrone : 22841
```

Respuesta: hay 22841 comentarios de usuarios con dominio "gameofthron.es"

- Exercici 2

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

▼

\$match

\$group

\$project

Untitled - modified

SAVE ▼

+ CREATE NEW

EXPORT TO LANGUAGE

▼ Stage 1

\$match

☒

```
1 {
2   "location.address.state": "DC"
3 }
```

Output after [\\$match](#) stage (Sample of 3 documents)

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

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

+

▼ Stage 2

\$group

☒

```
1 {
2   _id: "$location.address.zipcode",
3   count: {
4     $count: {}
5   }
6 }
```

Output after [\\$group](#) stage (Sample of 3 documents)

```
_id: "20010"
count: 1
```

```
_id: "20016"
count: 1
```

▼

▼ Stage 3

\$project

☒

```
1 {
2   _id: 0,
3   zipcode: "$_id",
4   count: 0,
5   count: "$count"
6 }
```

Output after [\\$project](#) stage (Sample of 3 documents)

```
zipcode: "20002"
count: 1
```

```
zipcode: "20002"
count: 1
```

localhost:27017 > Sprint_9 > theaters

Documents 1.6K

Aggregations

Schema

Index



\$match

\$group

\$project



Edit

ALL RESULTS

OUTPUT OPTIONS ▼

```
zipcode : "20010"  
count : 1
```

```
zipcode : "20016"  
count : 1
```

```
zipcode : "20002"  
count : 1
```

Respuesta: hay 1 cine en cada código postal de Washington D. C. (3 en total). Los cambios realizados en el stage "\$project" son para que "_id" aparezca como "zipcode", y para que "count" aparezca debajo de "zipcode", no arriba.

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.

Documents 23.5K Aggregations Schema Indexes 1 Validation

```
{
  directors: "John Landis",
  "imdb.rating": {"$gte": 7.5, "$lte": 8}
}
```

Generate query Explain Reset Find

ADD DATA EXPORT DATA UPDATE DELETE 1 - 4 of 4

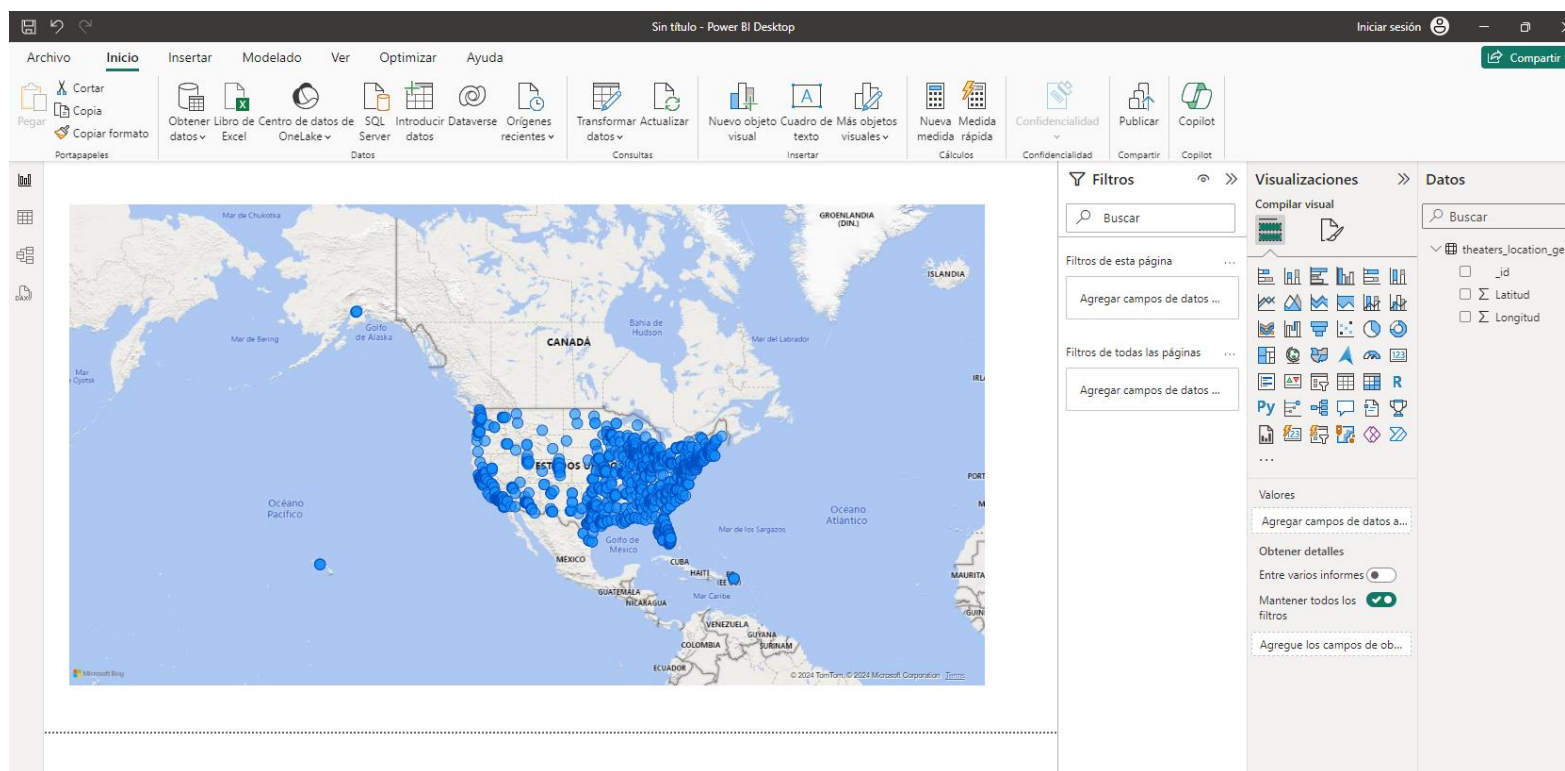
```
_id: ObjectId('573a1397f29313caabce6d94')
fullplot: "Faber College has one frat house so disreputable it will take anyone. ..."
imdb: Object
  rating: 7.6
  votes: 84834
  id: 77975
year: 1978
plot: "At a 1962 college, Dean Vernon Wormer is determined to expel the entire..."
genres: Array (1)
  rated: "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/MV5BM2M2ZDA4MTYtOGRjMj00OTg5LWI1ZT..."
  num_mflix_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
```

```
_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
poster: "https://m.media-amazon.com/images/M/MV5BYTdlMDExOGUtN2I3MS00MjY5LWE1NT..."
```

Respuesta: hay 4 películas de John Landis con una puntuación IMDB de entre 7.5 y 8.

- Exercici 2

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



Respuesta: Los cines registrados en nuestra base de datos están en EE. UU. (incluyendo Alaska y Hawái) y en Puerto Rico.