

Nivell 1

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

- Exercici 1

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

The screenshot shows the MongoDB Compass interface. On the left, the 'Databases' sidebar lists 'SPRINT9' and its collections: 'comments', 'movies', 'sessions', 'theaters', and 'users'. The 'comments' collection is selected. The main area shows the 'Documents' tab with 50.3K documents. A query filter is set to '{}'. Below the filter, there are buttons for 'ADD DATA', 'EXPORT DATA', 'UPDATE', and 'DELETE'. The first document displayed is:

```
{
  "_id": ObjectId("5a9427648b0beebe69579cc"),
  "name": "Andrea Le",
  "email": "andrea_le@fakegmail.com",
  "movie_id": ObjectId("573a1390f29313caabdc418c"),
  "text": "Rem officiiis eaque repellendus amet eos doloribus. Porro dolor volupta...",
  "date": 2012-03-26T23:20:16.000+00:00
}
```

The second document displayed is:

```
{
  "_id": ObjectId("5a9427648b0beebe69579cf"),
  "name": "Greg Powell",
  "email": "greg_powell@fakegmail.com",
  "movie_id": ObjectId("573a1390f29313caabdc41b1"),
  "text": "Tenetur dolorum molestiae ea. Eligendi praesentium unde quod porro. Co...",
  "date": 1987-02-10T00:29:36.000+00:00
}
```

```
> _MONGOOSH
{}
> db.comments.find().limit(2)
< {
  {
    _id: ObjectId('5a9427648b0beebe69579cc'),
    name: 'Andrea Le',
    email: 'andrea_le@fakegmail.com',
    movie_id: ObjectId('573a1390f29313caabdc418c'),
    text: 'Rem officiiis 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('573a1390f29313caabdc41b1'),
    text: 'Tenetur dolorum molestiae ea. Eligendi praesentium unde quod porro. Commodi nisi sit placeat rerum vero cupiditate neque. Dolorum nihil vero animi.'
    date: 1987-02-10T00:29:36.000Z
  }
}
```

- Quants usuaris tenim registrats?

Son 185

The screenshot shows the MongoDB Compass interface. On the left, the 'Databases' sidebar lists 'SPRINT9' and its collections: 'comments', 'movies', 'sessions', 'theaters', and 'users'. The 'users' collection is selected. The main area shows the 'Documents' tab with 185 documents. A query filter is set to '{}'. Below the filter, there are buttons for 'ADD DATA', 'EXPORT DATA', 'UPDATE', and 'DELETE'. The first document displayed is:

```
{
  "_id": ObjectId("59b99db4cfa9a34dcd7885b6"),
  "name": "Ned Stark",
  "email": "sean_bean@gameofthron.es",
  "password": "$2b$12$UREFwsRUoyf0CRqGNk0Lz08HM/jLhgUCNII39R3AqMUQ74crL31Vu"
}
```

Below the screenshot, the MongoDB shell command is shown:

```
> _MONGOOSH
> db.users.countDocuments()
185
SPRINT9 >
```

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

Hi han 169

localhost:27017 > SPRINT9 > theaters

Documents 1.6K Aggregations Schema Indexes 1 Validation

Filter: {"location.address.state": "CA"} [Generate query] [Explain] [Reset] [Find] [Options]

1 - 20 of 169

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

>_MONGOSH

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

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

Ned Stark.

localhost:27017 > SPRINT9 > users

Documents 185 Aggregations Schema Indexes 1 Validation

Filter: Type a query: { field: 'value' } or [Generate query]

Project { field: 0 } Sort { _id: 1 } Max Time MS 60000 Collation { locale: 'simple' } Skip 0 Limit 0 Index Hint { field: -1 }

1 - 20 of 185

```
{
  "_id": ObjectId("59b99db4cfa9a34dcd7885b6"),
  "name": "Ned Stark",
  "email": "sean_bean@gameofthron.es",
  "password": "$2b$12$UREFwsRUoyF0CRqGNK0Lz00HM/jLhgUCNNI39RJAqMUQ74crL31Vu"
}
```

```
{
  "_id": ObjectId("59b99db4cfa9a34dcd7885b7"),
  "name": "Robert Baratheon",
  "email": "mark_addy@gameofthron.es",
  "password": "$2b$12$yGaxLG9L7pXA2xVDhuPnSOZd.VURVhz7wgOLY3pn08s7u2S1Z032y"
}
```

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

Hi ha 7024

The screenshot shows the MongoDB Compass interface. On the left, the 'Databases' sidebar lists 'SPRINT9' with collections 'comments', 'movies', 'sessions', 'theaters', and 'users'. The 'movies' collection is selected. The main panel shows a query: `{ "genres": "Comedy" }`. Below the query, a document is displayed with fields like `_id`, `plot`, `genres`, `runtime`, `cast`, `num_rflx_comments`, `poster`, `title`, `fullplot`, and `languages`. At the bottom, a terminal window shows the command `db.movies.countDocuments({ genres: "Comedy" })` returning `7924`.

- Exercici 2

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

N'hi ha 16.

The screenshot shows the MongoDB Compass interface. The query is: `{ "year": 1932, "$or": [{ "genres": "Drama" }, { "Languages": "French" }] }`. A document is displayed with fields like `_id`, `plot`, `genres`, `runtime`, `cast`, `poster`, `title`, `fullplot`, `languages`, `released`, `directors`, `writers`, and `awards`.

The screenshot shows a MongoDB terminal window. The command is: `db.movies.find({$and: [{ year: 1932 }, { $or: [{ genres: "Drama" }, { Languages: "French" }] }]})`. The result is a document with fields like `_id`, `plot`, `genres`, and `languages`.

- 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.

N'hi ha 422

Databases

Search

SPRINT9

comments

movies

sessions

theaters

users

admin

config

local

Generate query

Explain

Reset

Find

Options

ADD DATA

EXPORT DATA

UPDATE

DELETE

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```
{ "$and": [
  { "awards.wins": { "$gte": 5, "$lte": 9 } },
  { "year": { "$gte": 2012, "$lte": 2014 } }
]}
```

```
{
  _id: ObjectId('573a13acf29313caabd29366'),
  fullplot: "The manager of the negative assets sector of Life magazine, Walter 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"
    tomatos: Object
    poster: "https://m.media-amazon.com/images/M/MV5BODYwNDYxNDk1N15BM15BanBnXkFtZT..."
    num_mflix_comments: 1
}
```

```
> .MONGOSH
> db.movies.find(
  {
    $and: [
      { "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 has a tedious
  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 that turns into ar"
```

Nivell 2

- Exercici 1

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

Son 22841

Databases

Search

SPRINT9

comments

movies

sessions

theaters

users

admin

config

local

Generate query

Explain

Reset

Find

Options

ADD DATA

EXPORT DATA

UPDATE

DELETE

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```
{
  "email": { "$regex": "@GAMEOFTHRON\\.ES$", "$optio
}
```

```
{
  _id: ObjectId('5a9427648b0beeb69579d0'),
  name: "Talisa Maegyr",
  email: "oona_chaplin@gameofthron.es",
  movie_id: ObjectId('573a1390f29313caabdc41b1'),
  text: "Rem itaque ad sit rem voluptatibus. Ad fugiat maxime illum optio iure ..."
  date: 1998-08-22T11:45:03.000+00:00
}
```

```
{
  _id: ObjectId('5a9427648b0beeb69579d5'),
  name: "Petyr Baelish",
  email: "aidan_gillen@gameofthron.es",
  movie_id: ObjectId('573a1390f29313caabdc4210'),
  text: "Quo deserunt ipsam ipsum. Tenetur eos nemo nam sint praesentium minus ..."
  date: 2001-07-13T19:25:09.000+00:00
}
```

```
> .MONGOSH
> db.comments.countDocuments(
  {
    email: { $regex: "@GAMEOFTHRON\\.ES$", $options: "i" }
  }
);
22841
```

SPRINT9

Búsqueda

- Exercici 2

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

1 a cadascun dels 3 codis postals.

```
db.getCollection('theaters').aggregate([
  {
    $match: { 'location.address.state': 'DC' }
  },
  {
    $group: {
      _id: '$location.address.zipcode',
      count: { $sum: 1 }
    }
  }
])
```

The screenshot shows a MongoDB aggregation query interface. On the left, a sidebar lists databases and collections. The 'theaters' collection is selected. The main area displays the aggregation query and its results. The query is: `db.getCollection('theaters').aggregate([{ $match: { 'location.address.state': 'DC' } }, { $group: { _id: '$location.address.zipcode', count: { $sum: 1 } } }])`. The results show three documents, each representing a zip code and its count.

_id	count
"20002"	1
"20010"	1
"20016"	1

```
> _MONGOSH
< 22841
> db.theaters.aggregate([
  {
    $match: {
      "location.address.state": "DC"
    }
  },
  {
    $group: {
      _id: "$location.address.zipcode",
      count: { $sum: 1 }
    }
  },
  {
    $sort: { count: -1 } //
  }
]);
< {
  _id: '20016',
  count: 1
}
{
  _id: '20002',
  count: 1
}
{
  _id: '20010',
  count: 1
}
}
SPRINT9>
```

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.

Son 4:

Databases

Search

▼ SPRINT9

comments

movies

sessions

theaters

users

admin

config

local

Generate query

Explain

Reset

Find

Options

ADD DATA

EXPORT DATA

UPDATE

DELETE

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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 entire..."

genres: Array (1)

rated: "R"

metacritic: 82

title: "Animal House"

lastupdated: "2015-09-13 00:02:47.003000000"

languages: Array (2)

writers: Array (3)

type: "movie"

tomatoes: Object

poster: "https://m.media-amazon.com/images/M/MV5BM2W2ZDA4HTYtOGRjM100OTg5LWI1ZT..."

```

    _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..."
    title: "The Blues Brothers"
    fullplot: "After the release of Jake Blues from prison, he and brother Elwood go ..."
    languages: Array (1)
    released: 1980-06-20T00:00:00.000+00:00
    directors: Array (1)
    writers: Array (2)
    awards: Object
  }
}

    _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..."

    _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/MV5BYTEzMjBiMzktMjYyMS00YzBhLTgzNW..."
    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
  }
}

```

```

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

```

- Exercici 2

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



