

We will work with a database that contains collections related to a film entertainment application:

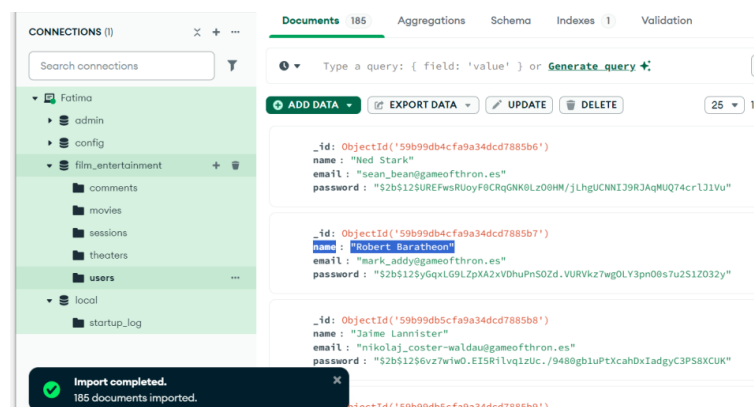
- users: Stores user information, including names, emails, and encrypted passwords.
- theatres: Contains cinema data, such as ID, location (address and geographical coordinates).
- sessions: Stores user sessions, including user IDs and JWT tokens for authentication.
- movies: Includes movie details, such as plot, genres, duration, cast, comments, release year, directors, ratings and awards.
- comments: Stores user comments about movies, with information about the author of the comment, movie ID, comment text, and date.

You will carry out some queries requested by the client, who is measuring whether or not you will be able to take charge of the analytical part of the project linked to their database.

Level 1

Create a database with MongoDB using the attached files as collections.

Connections > Add new connections > Fatima (cualquier nombre) > Create Database > film_entertainment > Create collection >



- Exercise 1

- Shows the first 2 comments in the database.

#1- con Open MongoDB Shell:

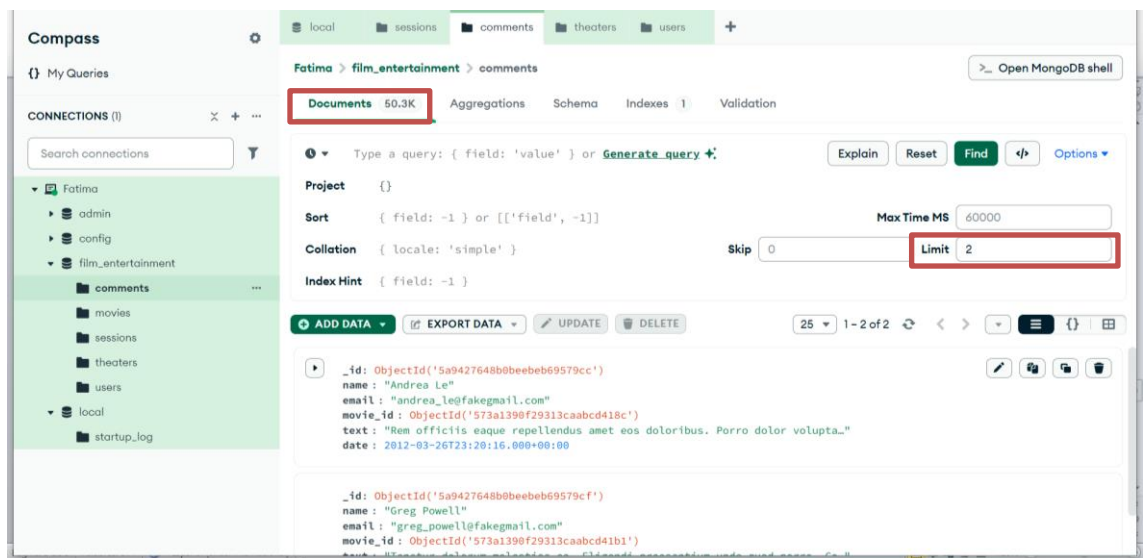
```
db["comments"].find().limit(2)
```

```

>_MONGOSH
> use film_entertainment
< switched to db film_entertainment
> 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. V',
    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 cupid',
    date: 1987-02-10T00:20:36.000Z
  }
]

```

#2- con Mongo DB Compass:



- How many users do we have registered?

#con Shell:

```
db["users"].countDocuments()
```

```

>_MONGOSH
> use film_entertainment
< switched to db film_entertainment
> db["users"].countDocuments()
< 185
film_entertainment>

```

- How many movie theaters are there in the state of California?

#con Shell:

```
db.theatres.countDocuments({ "location.address.state": "CA" })
```

```

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

```

- Who was the first user to register?

#con Shell:

```
db.users.find().sort({ _id: 1 }).limit(1)
```

```
> db.users.find().sort({ _id: 1 }).limit(1)
< {
  _id: ObjectId('59b99db4cfa9a34dcd7885b6'),
  name: 'Ned Stark',
  email: 'sean_bean@gameofthron.es',
  password: '$2b$12$UREFwsRUoyF0CRqGNK0Lz00HM/jLhgUCNNIJ9RJAqMUQ74cr1J1Vu'
}
```

- How many comedy films are in our database?

#con Shell:

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

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

- Exercise 2

Show me all the documents for films produced in 1932, but the genre is drama or they are in French.

#con Shell:

```
db.movies.find(
  {
    year: 1932,
    $or: [
      { genres: "Drama" },
      { languages: "French" }
    ]
  },
  {
    title: 1,
    year: 1,
    genres: 1,
    languages: 1,
    _id: 0
  }
)
```

```

    }
  }
  < {
    title: 'The Blood of a Poet',
    languages: [
      'French'
    ],
    year: 1932
  }
  {
    genres: [
      'Drama',
      'Fantasy',
      'Mystery'
    ],
    title: 'The Blue Light',
    languages: [
      'German',
      'Italian'
    ],
    year: 1932
  }
  {

```

- Exercise 3

Show me all documents of American films with between 5 and 9 awards that were produced between 2012 and 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 ye:
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
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'
],

```

Level 2

- Exercise 1

Count how many comments a user writes who uses "GAMEOFTHRON.ES" as their email domain.

```

db.comments.aggregate([
  {
    $match: {
      email: /@gameofthron\.es$/
    }
  },
  {

```

```

    $count: "totalComments"
  }
}
});

```



```

> db.comments.aggregate([
  {
    $match: {
      email: /@gameofthron.es$/
    }
  },
  {
    $count: "totalComments"
  }
]);
< {
  totalComments: 22841
}

```

- Exercise 2

How many movie theaters are there in each zip code located within the state of Washington DC (DC)?

```

db.theatres.aggregate([
  { $match: { "location.address.state": "DC" } },
  {
    $group: {
      _id: "$location.address.zipcode", // Agrupar por código postal
      totalTheatres: { $sum: 1 }
    }
  },
  {
    $project: {
      zip_code: "$_id", // Cambiar el nombre de _id a zip_code
      totalTheatres: 1, // Conservar el campo totalTheatres
      _id: 0 // Eliminar el campo _id de la visualización final
    }
  }
]);

```



```

    },
  },
  {
    $project: {
      zip_code: "$_id", // zip_code به _id تغییر نام
      totalTheatres: 1, // totalTheatres نگه داشتن فیلد
      _id: 0 // از نمایش نهایی _id حذف فیلد
    }
  }
]);
< {
  totalTheatres: 1,
  zip_code: '20010'
}
{
  totalTheatres: 1,
  zip_code: '20016'
}
{
  totalTheatres: 1,
  zip_code: '20002'
}
film_entertainment>

```

Level 3

- Exercise 1

Find all films directed by John Landis with an IMDb (Internet Movie Database) rating between 7.5 and 8.

```
db.movies.find({
  directors: "John Landis",
  "imdb.rating": { $gte: 7.5, $lte: 8 }
}, {
  title: 1,
  "imdb.rating": 1,
  directors: 1,
  _id: 0
})
```



```

  rating: 7.6
},
{
  title: 'Animal House',
  directors: [
    'John Landis'
  ]
}
{
  title: 'The Blues Brothers',
  directors: [
    'John Landis'
  ],
  imdb: {
    rating: 7.9
  }
}
{
  imdb: {
    rating: 7.6
  },
  title: 'An American Werewolf in London',
  directors: [
    'John Landis'
  ]
}
```

- Exercise 2

Shows the location of all the theaters in the database on a map.

#con Mongo DB compass:

