



## Pràctica UF4-PR1 CRUD MongoDB

### *Es farà servir la BD sample\_mflix*

#### Exercici 1

Insereix 2 pel·lícules noves a la col·lecció "movies".

Exemple:

- title : Fight Club
- writer : Chuck Palahniuk
- year : 1999
- cast : [
  - Brad Pitt
  - Edward Norton
  - ...]

Com a resultat de l'exercici indica els títols que has inserit , les sentències per fer insert i fes una captura de MongoDB Compass on es mostri que s'han afegit a la col·lecció.

#### Exercici 2

Fes les següents consultes a la col·lecció "movies".

1. Mostra tots els documents
2. Mostra totes les pel·lícules que tinguin com "writers" a "Quentin Tarantino"
3. Mostra totes les pel·lícules que tinguin el camp "cast" inclòs a "Brad Pitt"
4. Mostra els documents que tinguin com a "genres" "Action" i "Western"
5. Mostra totes les pel·lícules que es van realitzar als 90
6. Mostra totes les pel·lícules que es van realitzar abans del any 2000 i després de l'any 2010.

Com a resultat de l'exercici inclou evidències que mostrin la sentència i el resultat de cada consulta.

#### Exercici 3

Fes les següents actualitzacions a la col·lecció "movies".

1. Afegeix un camp esmentat "synopsis" al film "The Hobbit: An Unexpected Journey" : "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain with a spirited group of dwarves to reclaim their mountain home - and the gold within it - from the dragon Smaug."
2. Afegeix un camp esmentat "synopsis" a "The Hobbit: The Desolation of Smaug" : "The dwarves, along with Bilbo Baggins and Gandalf the Grey, continue their quest to reclaim Erebor, their homeland, from Smaug. Bilbo Baggins is in possession of a mysterious and magical ring."
3. Afegeix un actor esmentat "Samuel L. Jackson" al film "Pulp Fiction"

Com a resultat de l'exercici inclou evidències que mostrin la sentència i el resultat de cada actualització.

## Exercici 4

Fes consultes amb operadors de text <https://www.mongodb.com/docs/v4.4/core/text-search-operators/>

1. Cerca totes les pel·lícules que al plot conté la paraula "Bilbo".
2. Cerca totes les pel·lícules que al plot conté la paraula "Gandalf".
3. Cerca totes les pel·lícules que al plot conté la paraula "Bilbo", però no la paraula "Gandalf"
4. Cerca totes les pel·lícules que al plot conté les paraules "dwarves" o "hobbit"
5. Cerca totes les pel·lícules que al seu títol conté les paraules "gold" i "dragons"

Com a resultat de l'exercici inclou evidències que mostrin la sentència i el resultat de cada consulta.

## Exercici 5

Esborra de la col·lecció "movies".

1. Esborra la pel·lícula Star Trek
2. Esborra la pel·lícula Love Actually
3. Esborra el camp type de la col·lecció "movies"

Com a resultat de l'exercici inclou la sentència i evidències que mostrin que s'ha esborrat.

# Lliurament

En el document caldrà definir una capçalera a on aparegui les següents dades:

- Nom complet de l'alumne o alumnes
- Nom del mòdul: *MP02. Bases de dades*
- Unitat formativa: *UF3. BD NoSQL*
- Nom de la pràctica: *PR1-CRUD*

El nom del document haurà de ser "M2\_UF4\_PR1\_Cognom1\_Nom.odf".

Es pujarà al Moodle en format pdf on es reculli cada exercici CLARAMENT IDENTIFICAT.  
No més tard de la data límit de lliurament indicada.

## Avaluació

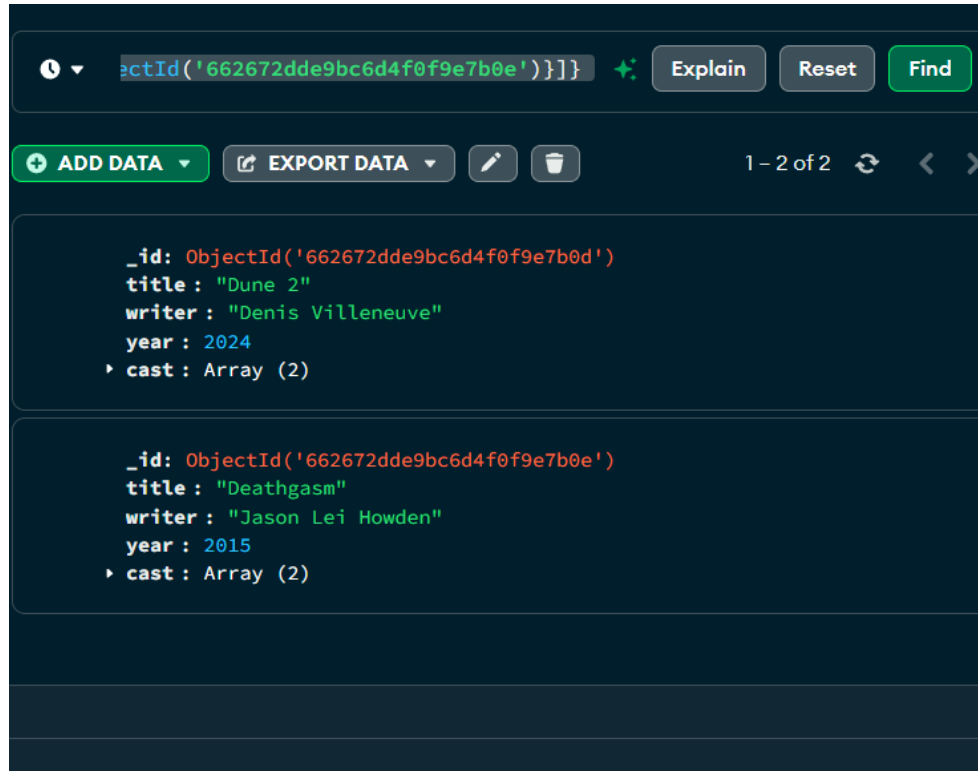
S'avaluarà:

- El contingut de les respostes
- El disseny del document tenint en compte la facilitat de lectura i correcció.
- L'aspecte general i la correcta utilització del llenguatge.

Ex1

```
db.movies.insertMany([
{
title:"Dune 2",
writer: "DenisVilleneuve",
year: 2024,
cast: ["Timothee Chalamet", "Zendaya"]
},
{
title:"Deathgasm",
writer: "Jason Lei Howden",
year: 2015,
cast: ["Milo Cawthorne", "James Blake"]
}
])
```

```
{$_or:[{_id:
ObjectId('662672dde9bc6d4f0f9e7b0d')},
{_id:ObjectId('662672dde9bc6d4f0f9e7b0e')}]}
```



Ex2

```
1 db.movies.find()
```

```
> db.movies.find()
< {
  _id: ObjectId('573a1390f29313caabcd42e8'),
  plot: 'A group of bandits stage a brazen train hold-up, only to find a determined posse hot on their heels.',
  genres: [
    'Short',
    'Western'
  ],
  runtime: 11,
  cast: [
    'A.C. Abadie',
    'Gilbert M. 'Broncho Billy' Anderson',
    'George Barnes',
    'Justus D. Barnes'
  ],
  poster: 'https://m.media-amazon.com/images/M/MV5BMTU3NjE5NzYtYTtyNS00MDVmLWlWiYjgtMmYwYWIxZDZyNzU2XkEyXkFqcGdeQXVyNzQzNzQxNjM@._V1_SX300.jpg',
  title: 'The Great Train Robbery',
  fullplot: "Among the earliest existing films in American cinema - notable as the first film that presented a narrative story",
  languages: [
    'English'
  ],
  released: 1903-12-01T00:00:00.000Z,
```

2 db.movies.find({writers:"Quentin Tarantino"})

The screenshot shows a MongoDB query interface with the query `{writers:"Quentin Tarantino"}`. The results are displayed in a dark-themed editor. The first document is for the movie "Reservoir Dogs" (ID: 573a1399f29313caabced499), and the second is for "In Detroit, Clarence Worley goes to the movie theater alone on the day..." (ID: 573a1399f29313caabcee084). Both documents are truncated with an ellipsis.

```
_id: ObjectId('573a1399f29313caabced499')
plot: "After a simple jewelry heist goes terribly wrong, the surviving crimi..."
> genres: Array (2)
runtime: 99
metacritic: 78
rated: "R"
> cast: Array (4)
poster: "https://m.media-amazon.com/images/M/MV5BZmExNmEwYWItYmQzOS00YjA5LTk2Mj..."
title: "Reservoir Dogs"
fullplot: "Six criminals, who are strangers to each other, are hired by a crime b..."
> languages: Array (1)
released: 1992-09-02T00:00:00.000+00:00
> directors: Array (1)
> writers: Array (3)
> awards: Object
lastupdated: "2015-09-05 00:01:40.220000000"
year: 1992
> imdb: Object
> countries: Array (1)
type: "movie"
> tomatoes: Object
num_mflix_comments: 0

_id: ObjectId('573a1399f29313caabcee084')
fullplot: "In Detroit, Clarence Worley goes to the movie theater alone on the day..."
> imdb: Object
year: 1992
```

3 db.movies.find({cast:"Brad Pitt"})

The screenshot shows a MongoDB query interface with the query `{cast:"Brad Pitt"}`. The results are displayed in a dark-themed editor. The first document is for the movie "Cool World" (ID: 573a1399f29313caabcecffc), and the second is for "A struggling young musician and devoted fan of Ricky Nelson wants to b..." (ID: 573a1399f29313caabced222). Both documents are truncated with an ellipsis.

```
_id: ObjectId('573a1399f29313caabcecffc')
fullplot: "Jack Deebs is a cartoonist who is due to be released from jail. His co..."
> imdb: Object
year: 1992
plot: "A comic strip vamp seeks to seduce her cartoonist creator in order to ..."
> genres: Array (3)
rated: "PG-13"
metacritic: 28
title: "Cool World"
lastupdated: "2015-09-05 00:25:50.207000000"
> languages: Array (1)
> writers: Array (2)
type: "movie"
> tomatoes: Object
poster: "https://m.media-amazon.com/images/M/MV5BN2FmNGYzMGQtZDI1MS00NTIwLWE4Mz..."
num_mflix_comments: 0
released: 1992-07-10T00:00:00.000+00:00
> awards: Object
> countries: Array (1)
> cast: Array (4)
> directors: Array (1)
runtime: 102

_id: ObjectId('573a1399f29313caabced222')
fullplot: "A struggling young musician and devoted fan of Ricky Nelson wants to b..."
> imdb: Object
year: 1991
```

4 db.movies.find({\$and:[{genres:"Action"},{genres: "Western"}]}))

The screenshot shows the MongoDB Compass interface. At the top, the query bar contains the query: `{ $and: [{ genres: "Action" }, { genres: "Western" }] }`. Below the query bar, there are buttons for "ADD DATA", "EXPORT DATA", "UPDATE", and "DELETE". The results pane shows two documents. The first document is for the movie "The Comancheros" (1961), which has genres "Action", "Western", and "Adventure". The second document is partially visible, showing the start of another movie entry.

```
{
  "_id": ObjectId('573a1395f29313caabce166c'),
  "plot": "Texas Ranger Jake Cutter arrests gambler Paul Regret, but soon finds h...",
  "genres": Array (3)
    0: "Action"
    1: "Western"
    2: "Adventure"
  "runtime": 107
  "rated": "APPROVED"
  "cast": Array (4)
  "num_mflix_comments": 0
  "poster": "https://m.media-amazon.com/images/M/MV5BODQzM2RjZjctNmFjYS00ZDE0LWI1M2..."
  "title": "The Comancheros"
  "fullplot": "Texas Ranger Jake Cutter arrests gambler Paul Regret, but soon finds h..."
  "languages": Array (1)
  "released": 1961-10-30T00:00:00.000+00:00
  "directors": Array (2)
  "writers": Array (3)
  "awards": Object
  "lastupdated": "2015-09-05 00:38:37.447000000"
  "year": 1961
  "imdb": Object
  "countries": Array (1)
  "type": "movie"
  "tomatoes": Object
}
```

5 db.movies.find({year: {\$gte: 1990, \$lte: 1999}})

The screenshot shows the MongoDB Compass interface. The query bar contains the query: `{ year: { $gte: 1990, $lte: 1999 } }`. Below the query bar, there are buttons for "ADD DATA", "EXPORT DATA", "UPDATE", and "DELETE". The results pane shows two documents. The first document is for the movie "Alice" (1991), which has genres "Action", "Western", and "Adventure". The second document is partially visible, showing the start of another movie entry.

```
{
  "_id": ObjectId('573a1398f29313caabcebcfa'),
  "plot": "A spoiled Manhattan housewife re-evaluates her life after visiting a C...",
  "genres": Array (3)
  "runtime": 102
  "rated": "PG-13"
  "cast": Array (4)
  "num_mflix_comments": 1
  "poster": "https://m.media-amazon.com/images/M/MV5BNDQ4YzdmY2MtYzkwOS00Njk5LWI5MW..."
  "title": "Alice"
  "fullplot": "Alice Tate, mother of two, with a marriage of 16 years, finds herself ..."
  "languages": Array (2)
  "released": 1991-01-10T00:00:00.000+00:00
  "directors": Array (1)
  "writers": Array (1)
  "awards": Object
  "lastupdated": "2015-08-31 00:21:26.483000000"
  "year": 1990
  "imdb": Object
  "countries": Array (1)
  "type": "movie"
  "tomatoes": Object
}
```

```
6. db.movies.find({$or:[{ year:{ $lte: 2000 }},{ year: { $gte: 2010 } } ]})
```

The screenshot displays the Data Explorer interface. At the top, there is a search bar with a query: `{ $or: [{ year: { $lte: 2000 } }, { year: { $gte: 2000 } } ] }`. To the right of the search bar are buttons for 'Explain', 'Reset', 'Find', and a code icon. Further right is an 'Options' link. Below the search bar is a toolbar with 'ADD DATA', 'EXPORT DATA', and icons for edit and delete. The main area shows a JSON object for a movie, with fields like `_id`, `plot`, `genres`, `runtime`, `cast`, `poster`, `title`, `fullplot`, `languages`, `released`, `directors`, `rated`, `awards`, `lastupdated`, `year`, `imdb`, `countries`, `type`, `tomatoes`, and `num_mflix_comments`. The JSON is displayed in a dark theme with syntax highlighting.

### Ex 3

```
1. db.movies.updateOne(
  { title: "The Hobbit: An Unexpected Journey" },
  { $set: { synopsis: "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain with a
    spirited group of dwarves to reclaim their mountain home - and the gold within it - from the dragon
    Smaug." }
})
```

```
> db.movies.updateOne(
  { title: "The Hobbit: An Unexpected Journey" },
  { $set: { synopsis: "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain with a
    spirited group of dwarves to reclaim their mountain home - and the gold within it - from the dragon
    Smaug." }
})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

```
title : "The Hobbit: An Unexpected Journey"
fullplot : "Bilbo Baggins is swept into a quest to reclaim the lost Dwarf Kingdom ..."
languages : Array (1)
released : 2012-12-14T00:00:00.000+00:00
directors : Array (1)
writers : Array (5)
awards : Object
lastupdated : "2015-08-22 00:04:21.593000000"
year : 2012
imdb : Object
countries : Array (2)
type : "movie"
tomatoes : Object
num_mflix_comments : 0
synopsis : "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain with a
    spirited group of dwarves to reclaim their mountain home - and the gold within it - from the dragon
    Smaug."
```

```
2. db.movies.updateOne(
  { title: "The Hobbit: The Desolation of Smaug" },
  { $set: { synopsis: "The dwarves, along with Bilbo Baggins and Gandalf the Grey,
    continue their quest to reclaim Erebor, their homeland, from Smaug. Bilbo
    Baggins is in possession of a mysterious and magical ring." }
})
```

```
db.movies.updateOne(
  { title: "The Hobbit: The Desolation of Smaug" },
  { $set: { synopsis: "The dwarves, along with Bilbo Baggins and Gandalf the Grey,
    continue their quest to reclaim Erebor, their homeland, from Smaug. Bilbo
    Baggins is in possession of a mysterious and magical ring." }
})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

```
title : "The Hobbit: The Desolation of Smaug"
fullplot : "After successfully crossing over (and under) the Misty Mountains, Thorin and his
    company of dwarves arrive at the Lonely Mountain, the ancient home of Bilbo. They are
    immediately met by a friendly but suspicious Balin, and then Gandalf the Grey, who
    explains the history of the Mountain and the fate of the dwarves. The dwarves, along
    with Bilbo Baggins and Gandalf the Grey, continue their quest to reclaim Erebor,
    their homeland, from Smaug. Bilbo Baggins is in possession of a mysterious and
    magical ring."
languages : Array (1)
released : 2013-12-13T00:00:00.000+00:00
directors : Array (1)
writers : Array (5)
awards : Object
lastupdated : "2015-09-15 02:50:29.353000000"
year : 2013
imdb : Object
countries : Array (2)
type : "movie"
tomatoes : Object
num_mflix_comments : 0
synopsis : "The dwarves, along with Bilbo Baggins and Gandalf the Grey, continue t..."
```

```
3. db.movies.updateOne(
  { title: "Pulp Fiction"},
  { $addToSet: { actors: "Samuel L. Jackson" }
})
```

```
> db.movies.updateOne(
  { title: "Pulp Fiction" },
  { $addToSet: { actors: "Samuel L. Jackson" } }
)
< {
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

```

_id: ObjectId('573a1399f29313caabceea14')
fullplot: "Jules Winnfield and Vincent Vega are two hitmen who are out to retriev..."
▶ imdb: Object
  year: 1994
  plot: "The lives of two mob hit men, a boxer, a gangster's wife, and a pair o..."
▶ genres: Array (2)
  rated: "R"
  metacritic: 94
  title: "Pulp Fiction"
  lastupdated: "2015-08-31 00:09:04.543000000"
▶ languages: Array (3)
▶ writers: Array (3)
  type: "movie"
▶ tomatoes: Object
  poster: "https://m.media-amazon.com/images/M/MV5BNGNhMDIzZTUtNTBlZi00MTRlLWFjM2..."
  num_mflix_comments: 121
  released: 1994-10-14T00:00:00.000+00:00
▶ awards: Object
▶ countries: Array (1)
▶ cast: Array (4)
▶ directors: Array (1)
  runtime: 154
▼ actors: Array (1)
  0: "Samuel L. Jackson"

```

Ex 3

```
1 db.movies.find({plot: {$regex: "Bilbo"}})
```

```
{plot: {$regex:"Bilbo"}}

_id: ObjectId('573a13bbf29313caabd53775')
plot: "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain wit..."
genres: Array (2)
runtime: 169
metacritic: 58
rated: "PG-13"
cast: Array (4)
poster: "https://m.media-amazon.com/images/M/MV5BMTcwNTE4MTUxM158M158anBnXkFtZT..."
title: "The Hobbit: An Unexpected Journey"
fullplot: "Bilbo Baggins is swept into a quest to reclaim the lost Dwarf Kingdom ..."
languages: Array (1)
released: 2012-12-14T00:00:00.000+00:00
directors: Array (1)
writers: Array (5)
awards: Object
lastupdated: "2015-08-22 00:04:21.593000000"
year: 2012
imdb: Object
countries: Array (2)
type: "movie"
tomatoes: Object
num_mflix_comments: 0
synopsis: "A reluctant hobbit, Bilbo Baggins, sets out to the Lonely Mountain wit..."

_id: ObjectId('573a13c0f29313caabd61db9')
plot: "The dwarves, along with Bilbo Baggins and Gandalf the Grey, continue t..."
genres: Array (2)
```



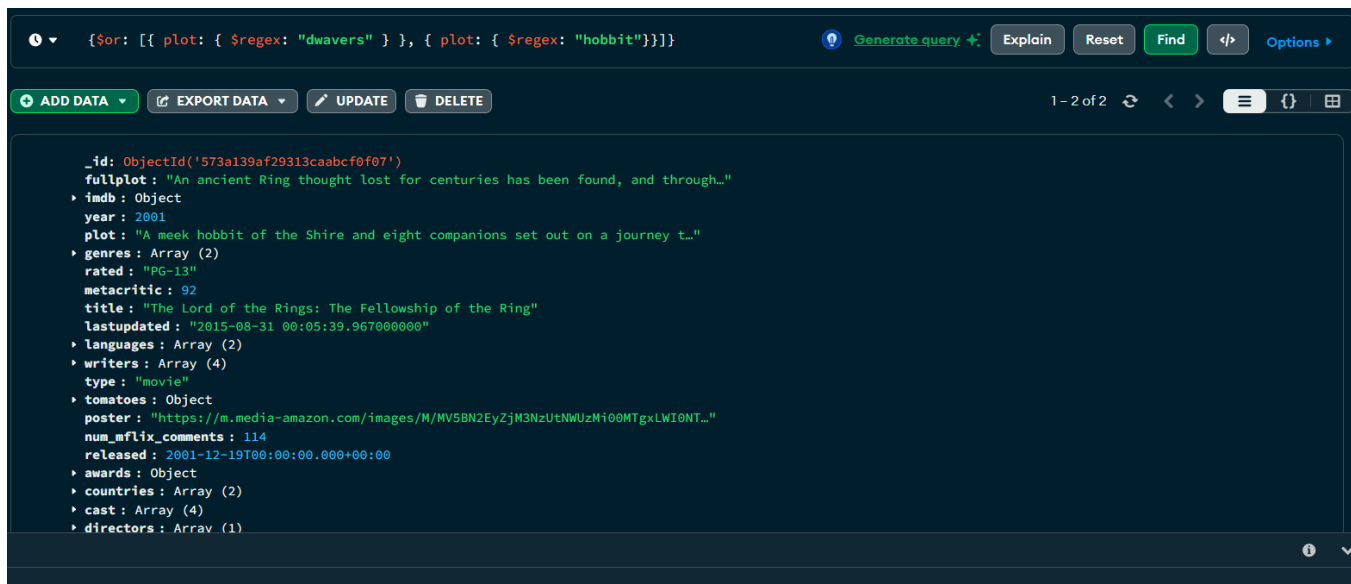
```
2 db.movies.find({plot: {$regex: "Gandalf"}})
```

The screenshot shows the MongoDB Compass interface. The query bar contains `{plot: {$regex: "Gandalf"}}`. The interface includes buttons for 'Generate query', 'Explain', 'Reset', 'Find', and 'Options'. Below the query bar, there are buttons for 'ADD DATA', 'EXPORT DATA', 'UPDATE', and 'DELETE'. The results pane shows 1-2 of 2 documents. The first document is expanded, showing fields like `_id`, `plot`, `genres`, `runtime`, `metacritic`, `rated`, `cast`, `poster`, `title`, `fullplot`, `languages`, `released`, `directors`, `writers`, `awards`, `lastupdated`, `year`, `imdb`, `countries`, `type`, `tomatoes`, `num_mflix_comments`, and `synopsis`.

```
3 db.movies.find({
  $and: [
    { plot: { $regex: "Bilbo" } },
    { plot: { $not: /Gandalf/ } }
  ]
})
```

The screenshot shows the MongoDB Compass interface. The query bar contains `{ $and: [{ plot: { $regex: "Bilbo" } }, { plot: { $not: /Gandalf/ } } ] }`. The interface includes buttons for 'Generate query', 'Explain', 'Reset', 'Find', and 'Options'. Below the query bar, there are buttons for 'ADD DATA', 'EXPORT DATA', 'UPDATE', and 'DELETE'. The results pane shows 1-2 of 2 documents. The first document is expanded, showing fields like `_id`, `plot`, `genres`, `runtime`, `metacritic`, `rated`, `cast`, `poster`, `title`, `fullplot`, `languages`, `released`, `directors`, `writers`, `awards`, `lastupdated`, `year`, `imdb`, `countries`, `type`, `tomatoes`, and `num_mflix_comments`.

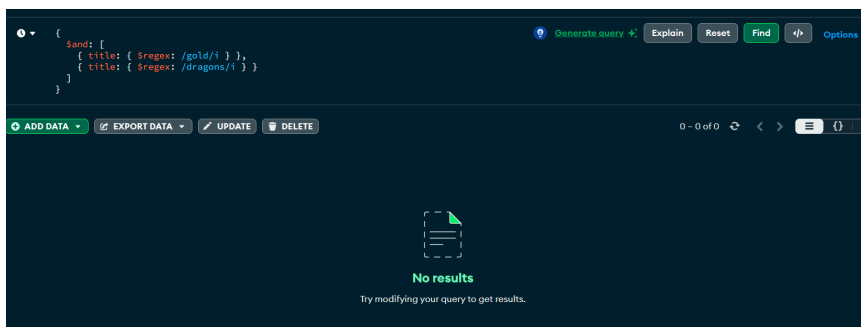
```
4 db.movies.find({
  $or: [
    { plot: { $regex: "dwavers" } },
    { plot: { $regex: "hobbit" } }
  ])
}
```



5 db.movies.find({  
\$and: [  
 { title: { \$regex: /gold/i } },  
 { title: { \$regex: /dragons/i } }  
] })

Como la query con  
\$and no me da  
resultados, adjunto la  
de \$or por si acaso

```
5 db.movies.find({
  $or: [
    { title: { $regex: /gold/i } },
    { title: { $regex: /dragons/i } }
  ])
}
```



Ex 3

1 db.movies.deleteOne({ title: "Star Trek" })



The screenshot shows the MongoDB Compass interface. At the top, the query filter is `{title: "Star Trek"}`. Below the filter are buttons for **ADD DATA**, **EXPORT DATA**, **UPDATE**, and **DELETE**. The main area displays the command `> db.movies.deleteOne({ title: "Star Trek" })` and its response `< { acknowledged: true, deletedCount: 1 }`. To the right, there is a document icon and the text **No results** with the message "Try modifying your query to get results."

2 db.movies.deleteOne({ title: "Love Actually" })



The screenshot shows the MongoDB Compass interface. At the top, the query filter is `{title: "Love Actually"}`. Below the filter are buttons for **ADD DATA**, **EXPORT DATA**, **UPDATE**, and **DELETE**. The main area displays the command `> db.movies.deleteOne({ title: "Love Actually" })` and its response `< { acknowledged: true, deletedCount: 1 }`. To the right, there is a document icon and the text **No results** with the message "Try modifying your query to get results."

```
3.db.movies.updateMany({}, { $unset: { type: "" } })
```

```
> db.movies.updateMany({}, { $unset: { type: "" } })
< {
  acknowledged: true,
  insertedId: null,
  matchedCount: 21349,
  modifiedCount: 21347,
  upsertedCount: 0
}
sample_mflix>
```

ADD DATA

EXPORT DATA

UPDATE

DELETE

1 - 20 of 21349

directors: Array (2)

writers: Array (2)

awards: Object

lastupdated: "2015-08-29 01:09:03.030000000"

year: 1911

imdb: Object

countries: Array (1)

tomatoes: Object

\_id: ObjectId('573a1390f29313caabcd4eaf')

plot: "A woman, with the aid of her police officer sweetheart, endeavors to u..."

genres: Array (2)

runtime: 88

cast: Array (4)

num\_mflix\_comments: 1

poster: "https://m.media-amazon.com/images/M/MV5BYzk0YWQzMGYtYTM5MC00NmM2LWE5Yz..."

title: "Traffic in Souls"

lastupdated: "2015-09-15 02:07:14.247000000"

languages: Array (1)

released: 1913-11-24T00:00:00.000+00:00

directors: Array (1)

rated: "TV-PG"

awards: Object

year: 1913

imdb: Object

countries: Array (1)

tomatoes: Object