

## Data Querying and Analysis in MongoDB

Loading the dataset:

```
movieDetails
> use video
[switched to db video]
[> load('/Users/vaishnaviet/Downloads/loadMovieDetailsDataset.js')
true
> ]
```

1. Find the title and the year of each movie directed by Nicholas Meyer.

Query:

```
db.movieDetails.find({"director" : "Nicholas Meyer"},{title:1,year:1,_id:0}).pretty()
```

Result:

```
> db.movieDetails.find({"director" : "Nicholas Meyer"},{title:1,year:1,_id:0}).pretty()
{ "title" : "Star Trek II: The Wrath of Khan", "year" : 1982 }
{ "title" : "Star Trek VI: The Undiscovered Country", "year" : 1991 }
> ]
```

2. How many movies were released in 2010 and rated as PG-13?

Query:

```
db.movieDetails.count({"year":2010,"rated":"PG-13"})
```

Result:

```
> db.movieDetails.count({"year":2010,"rated":"PG-13"})
10
> ]
```

3. Find the title and writer of each movie that has 3 award wins and 3 award nominations.

Query:

```
db.movieDetails.find({$and:[{"awards.wins":3},{"awards.nominations":3}]}},{title:1,writers:1
,_id:0}).pretty()
```

Result:

```
> db.movieDetails.find({$and:[{"awards.wins":3},{"awards.nominations":3}]}},{title:1,writers:1,_id:0}).pretty()
{
  "title" : "Spy Kids 2: Island of Lost Dreams",
  "writers" : [
    "Robert Rodriguez"
  ]
}
{
  "title" : "Wayne's World",
  "writers" : [
    "Mike Myers",
    "Mike Myers",
    "Bonnie Turner",
    "Terry Turner"
  ]
}
{
  "title" : "Das Wirtshaus im Spessart",
  "writers" : [
    "Wilhelm Hauff",
    "Curt Hanno Gutbrod",
    "Kurt Hoffmann",
    "Heinz Pauck",
    "Luiselotte Enderle",
    "Günter Neumann"
  ]
}
{ "title" : "Az alkímista és a szűz", "writers" : [ "Zoltán Kamondi" ] }
>
```

4. How many movies have one award wins or three award nominations?

Query:

```
db.movieDetails.count({$or:[{"awards.wins":1},{"awards.nominations":3}]})
```

Result:

```
[> db.movieDetails.count({$or:[{"awards.wins":1},{"awards.nominations":3}]})
246
>
```

5. How many movies do not contain the metacritic field.

Query:

```
db.movieDetails.count({metacritic:{$exists: false}})
```

Result:

```
> db.movieDetails.count({metacritic:{$exists: false}})
1918
> █
```

- Find the imdb rating for the movie that lists just two writers: "Ethan Coen" and "Joel Coen", **in that order**.

Query:

.

```
db.movieDetails.find({"writers":["Ethan Coen","Joel Coen"]},{"imdb.rating":1}).pretty()
```

Result:

```
type: ObjectId
> db.movieDetails.find({"writers":["Ethan Coen","Joel Coen"]},{"imdb.rating":1,"_id":1}).pretty()
{
  "_id" : ObjectId("6244b475c3c6dfb9c6685bcb"),
  "imdb" : {
    "rating" : 8.2
  }
}
> █
```

- How many movies list "Western" among its genres?

Query:

```
db.movieDetails.count({"genres":"Western"})
```

Result:

```
> db.movieDetails.count({"genres":"Western"})
33
> █
```

- Find the title of each movie that lists "Harrison Ford" as its leading actor?

Query:

```
db.movieDetails.find({"actors.0":"Harrison Ford"},{"title":1,"_id":0}).pretty()
```

Result:

```
{ "title" : "Raiders of the Lost Ark" }  
> db.movieDetails.find({"actors.0":"Harrison Ford"},{"title":1,"_id":0}).pretty()  
{ "title" : "Raiders of the Lost Ark" }  
> █
```

9. How many movies have an imdb rating greater than 8 and the plot field is not null?

Query:

```
db.movieDetails.count({$and:[{"imdb.rating":{$gt:8}},{"plot":{$ne:null}}])
```

Result:

```
0  
> db.movieDetails.count({$and:[{"imdb.rating":{$gt:8}},{"plot":{$ne:null}}])  
137  
> █
```

10. Find the movie title and the first element of the countries field that has five countries listed.

Query:

```
db.movieDetails.find({"countries":{$size:5}},{"title":1,"_id":0,"countries":{$slice:1}})
```

Result:

```
> db.movieDetails.find({"countries":{"$size:5}},{"title":1,"_id":0,"countries":{"$slice:1}})
{ "title" : "AVP: Alien vs. Predator", "countries" : [ "USA" ] }
{ "title" : "Where the Trail Ends", "countries" : [ "Argentina" ] }
{ "title" : "Outside the Law", "countries" : [ "France" ] }
{ "title" : "Night on Earth", "countries" : [ "France" ] }
{ "title" : "Os Canibais", "countries" : [ "Portugal" ] }
{ "title" : "Ae Fond Kiss...", "countries" : [ "UK" ] }
{ "title" : "Tesko je biti fin", "countries" : [ "UK" ] }
> █
```