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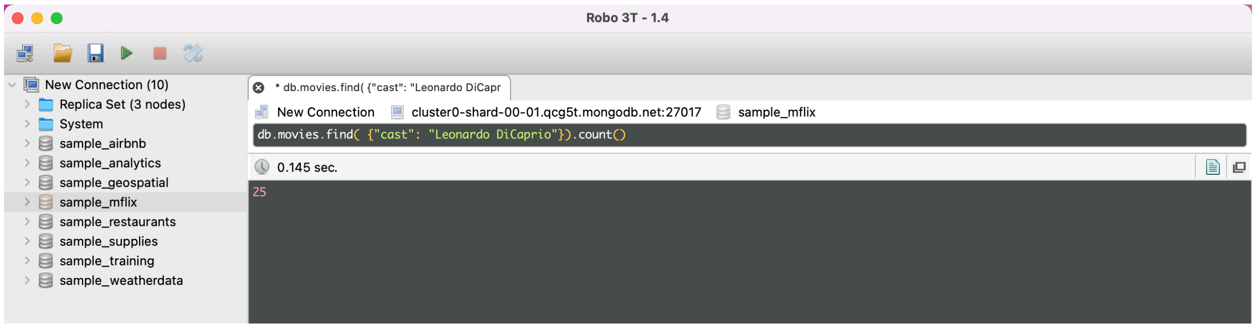
Unstructured Data Management

CIS8045: In-Class Exercise 1

# 1. Find Movies in which Leonardo DiCaprio has Acted
db.movies.find({"cast": "Leonardo DiCaprio"}).count()



Robo 3T - 1.4

New Connection (10)
Replica Set (3 nodes)
System
sample_airbnb
sample_analytics
sample_geospatial
sample_mflix
sample_restaurants
sample_supplies
sample_training
sample_weatherdata

* db.movies.find({"cast": "Leonardo DiCapr

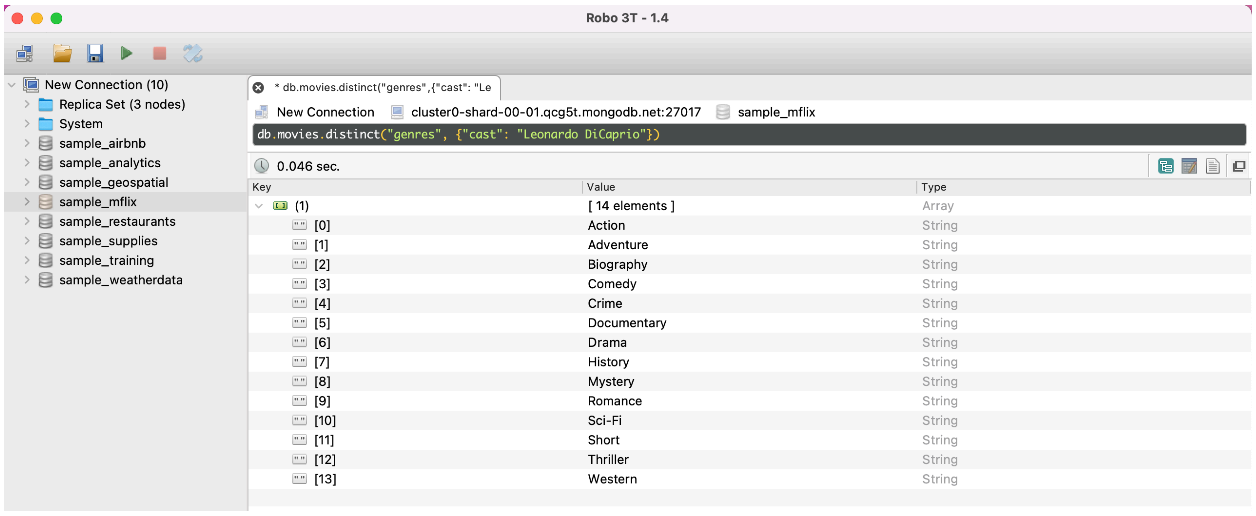
New Connection cluster0-shard-00-01.qcg5t.mongodb.net:27017 sample_mflix

```
db.movies.find( {"cast": "Leonardo DiCaprio"}).count()
```

0.145 sec.

```
25
```

# 2. Find Genres in which Leonardo DiCaprio has Acted
db.movies.distinct("genres", {"cast": "Leonardo DiCaprio”})



Robo 3T - 1.4

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* db.movies.distinct("genres",{"cast": "Le

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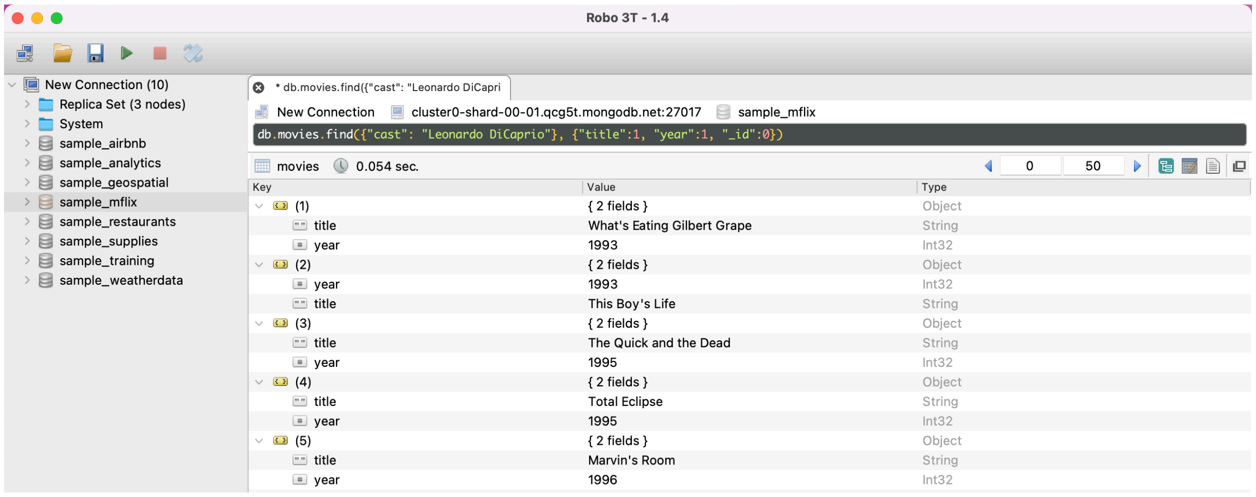
```
db.movies.distinct("genres", {"cast": "Leonardo DiCaprio"})
```

0.046 sec.

Key	Value	Type
(1)	[14 elements]	Array
[0]	Action	String
[1]	Adventure	String
[2]	Biography	String
[3]	Comedy	String
[4]	Crime	String
[5]	Documentary	String
[6]	Drama	String
[7]	History	String
[8]	Mystery	String
[9]	Romance	String
[10]	Sci-Fi	String
[11]	Short	String
[12]	Thriller	String
[13]	Western	String

# 3. Find Titles and Year of Release in which Leonardo DiCaprio has Acted
db.movies.find({"cast": "Leonardo DiCaprio"}, {"title":1, "year":1, “_id”:0})


Robo 3T - 1.4

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* db.movies.find({"cast": "Leonardo DiCapri

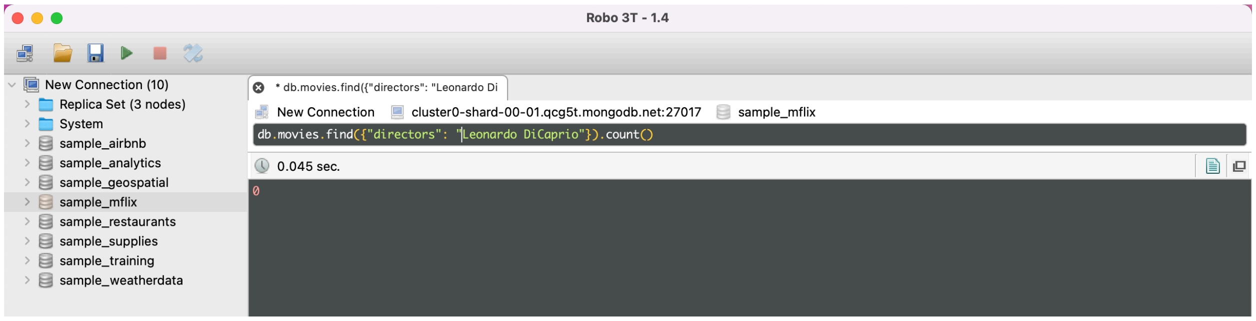
New Connection cluster0-shard-00-01.qcg5t.mongodb.net:27017 sample_mflix

```
db.movies.find({"cast": "Leonardo DiCaprio"}, {"title":1, "year":1, "_id":0})
```

movies 0.054 sec. 0 50

Key	Value	Type
(1)	{ 2 fields }	Object
title	What's Eating Gilbert Grape	String
year	1993	Int32
(2)	{ 2 fields }	Object
year	1993	Int32
title	This Boy's Life	String
(3)	{ 2 fields }	Object
title	The Quick and the Dead	String
year	1995	Int32
(4)	{ 2 fields }	Object
title	Total Eclipse	String
year	1995	Int32
(5)	{ 2 fields }	Object
title	Marvin's Room	String
year	1996	Int32

# 4. Find Movies directed by Leonardo DiCaprio
db.movies.find({"directors": "Leonardo DiCaprio”}).count()
db.movies.countDocuments({"directors":"Leonardo DiCaprio”})


Robo 3T - 1.4

New Connection (10)
Replica Set (3 nodes)
System
sample_airbnb
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sample_mflix
sample_restaurants
sample_supplies
sample_training
sample_weatherdata

* db.movies.find({"directors": "Leonardo Di

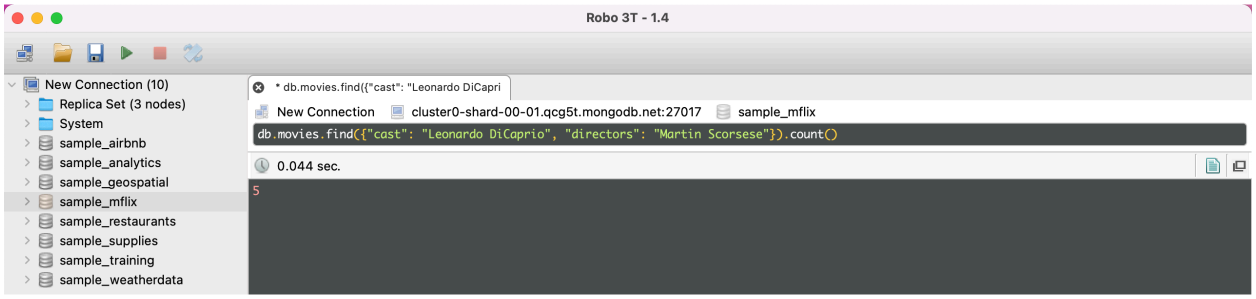
New Connection cluster0-shard-00-01.qcg5t.mongodb.net:27017 sample_mflix

```
db.movies.find({"directors": "Leonardo DiCaprio"}).count()
```

0.045 sec.

```
0
```

# 5. Find Movies in which Cast is Leonardo DiCaprio and Director is Martin Scorsese
db.movies.find({"cast": "Leonardo DiCaprio", "directors": "Martin Scorsese"}).count()


Robo 3T - 1.4

New Connection (10)
Replica Set (3 nodes)
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sample_airbnb
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sample_weatherdata

* db.movies.find({"cast": "Leonardo DiCapri

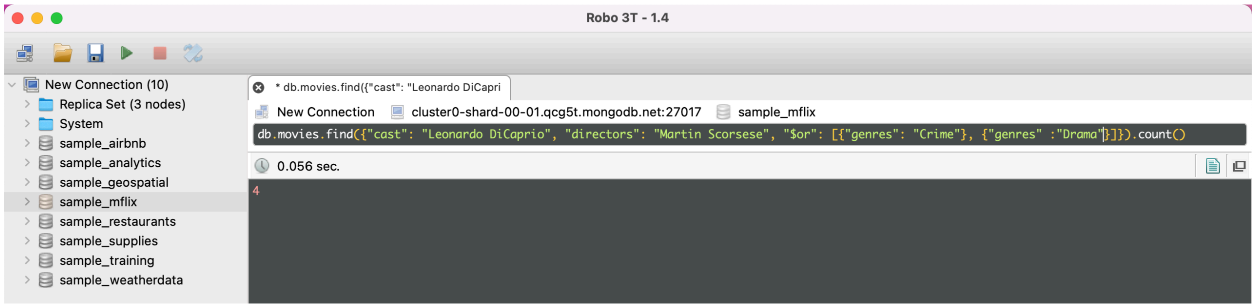
New Connection cluster0-shard-00-01.qcg5t.mongodb.net:27017 sample_mflix

```
db.movies.find({"cast": "Leonardo DiCaprio", "directors": "Martin Scorsese"}).count()
```

0.044 sec.

```
5
```

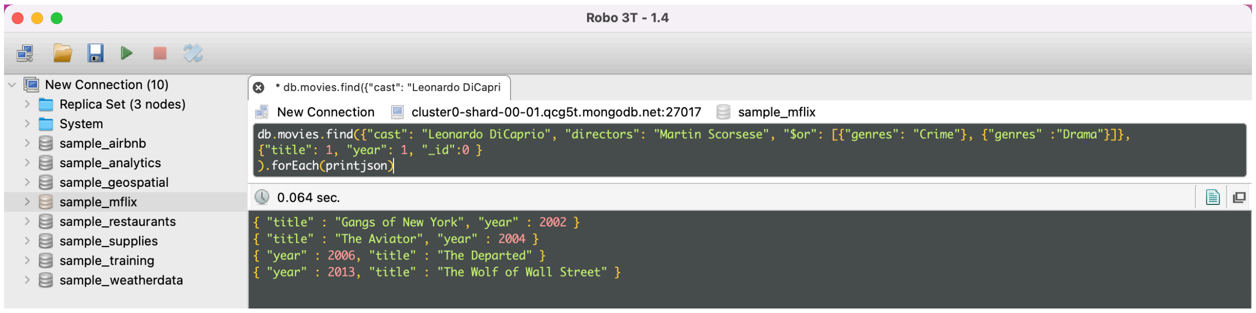
# 6. Find Movies in Cast is Leonardo DiCaprio, Director is Martin Scorsese, Genre is Crime
db.movies.find({"cast": "Leonardo DiCaprio", "directors": "Martin Scorsese", "$or": [{"genres": "Crime"}, {"genres" :"Drama"}]}).count()



```
db.movies.find({"cast": "Leonardo DiCaprio", "directors": "Martin Scorsese", "$or": [{"genres": "Crime"}, {"genres" :"Drama"}]}).count()
```

```
4
```

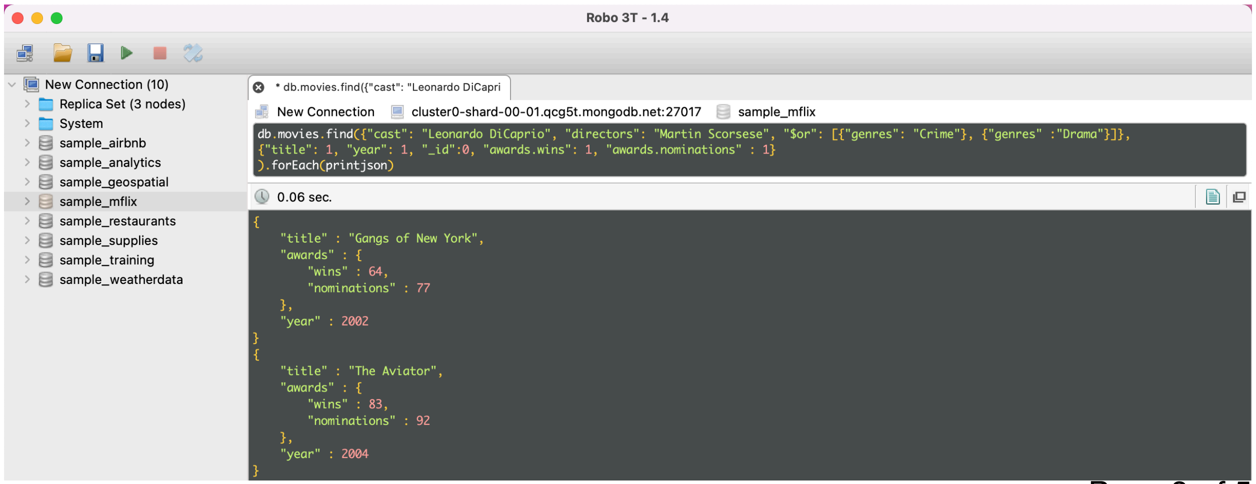
# 7. Find Title, Years of Movies in which Cast is DiCaprio, Director is Scorsese, Genre is Crime
db.movies.find({"cast": "Leonardo DiCaprio", "directors": "Martin Scorsese", "$or": [{"genres": "Crime"}, {"genres" :"Drama"}]},
{"title": 1, "year": 1, "_id":0 }
).forEach(printjson)



```
db.movies.find({"cast": "Leonardo DiCaprio", "directors": "Martin Scorsese", "$or": [{"genres": "Crime"}, {"genres" :"Drama"}]},
{"title": 1, "year": 1, "_id":0 }
).forEach(printjson)
```

```
{ "title" : "Gangs of New York", "year" : 2002 }
{ "title" : "The Aviator", "year" : 2004 }
{ "year" : 2006, "title" : "The Departed" }
{ "year" : 2013, "title" : "The Wolf of Wall Street" }
```

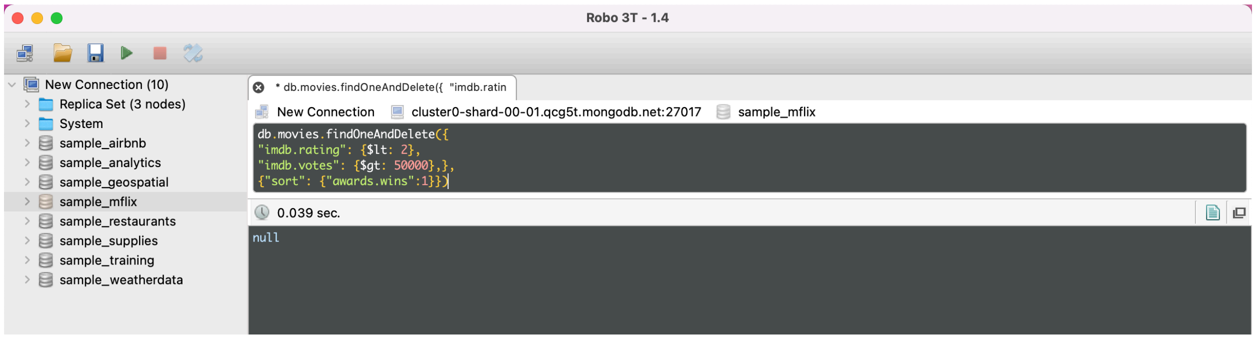
# 8. Display the number of awards and nominations for Title and Years of Movies in which Cast is Leonardo DiCaprio and Director is Martin Scorsese and Genre is Crime
db.movies.find({"cast": "Leonardo DiCaprio", "directors": "Martin Scorsese", "$or": [{"genres": "Crime"}, {"genres" :"Drama"}]},
{"title": 1, "year": 1, "_id":0, "awards.wins": 1, "awards.nominations" : 1}
).forEach(printjson)



```
db.movies.find({"cast": "Leonardo DiCaprio", "directors": "Martin Scorsese", "$or": [{"genres": "Crime"}, {"genres" :"Drama"}]},
{"title": 1, "year": 1, "_id":0, "awards.wins": 1, "awards.nominations" : 1}
).forEach(printjson)
```

```
{
    "title" : "Gangs of New York",
    "awards" : {
        "wins" : 64,
        "nominations" : 77
    },
    "year" : 2002
}
{
    "title" : "The Aviator",
    "awards" : {
        "wins" : 83,
        "nominations" : 92
    },
    "year" : 2004
}
```

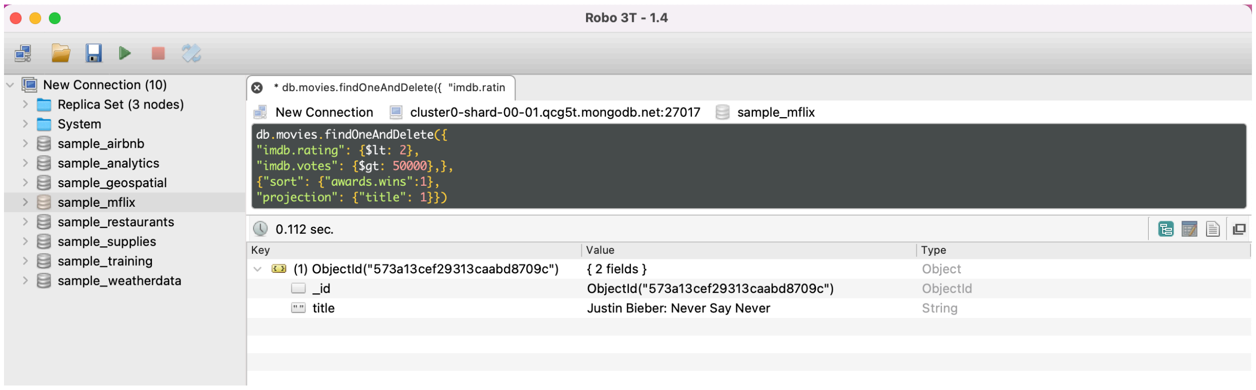
# 9. Remove Low Rating Movies and Votes are Greater than 50,000
db.movies.findOneAndDelete({
"imdb.rating": {$lt: 2},
"imdb.votes": {$gt: 50000},},
{"sort": {"awards.wins":1}})



```
db.movies.findOneAndDelete({
"imdb.rating": {$lt: 2},
"imdb.votes": {$gt: 50000},},
{"sort": {"awards.wins":1}})
```

```
null
```

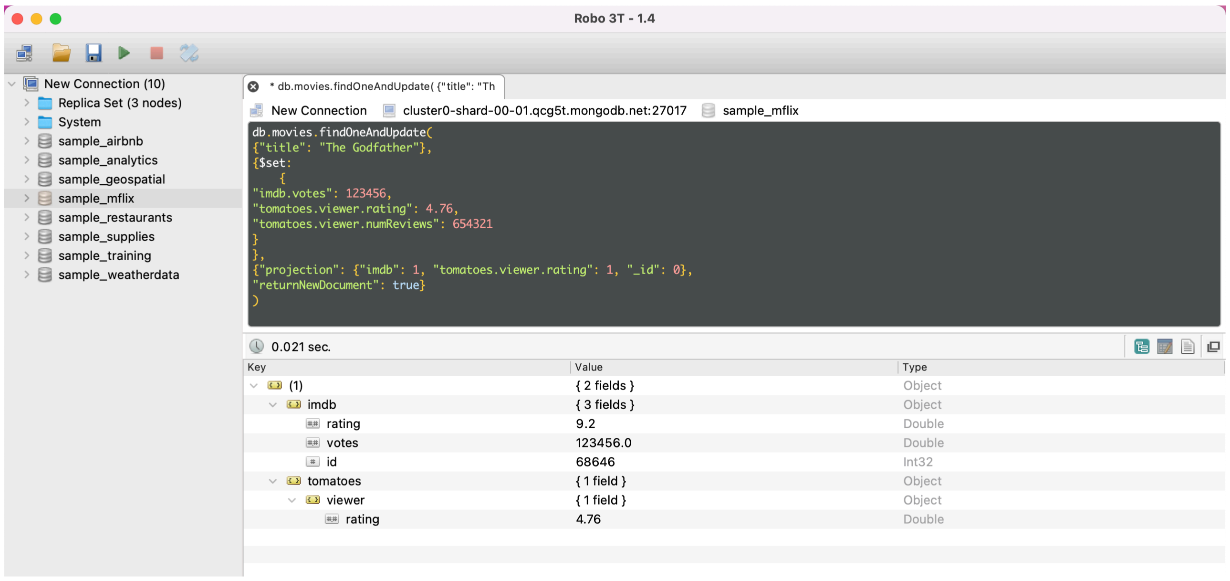
# 10. Remove Low Rating Movie and Sort Ascending Order
db.movies.findOneAndDelete({
"imdb.rating": {$lt: 2},
"imdb.votes": {$gt: 50000},},
{"sort": {"awards.wins":1},
"projection": {"title": 1}})



```
db.movies.findOneAndDelete({
"imdb.rating": {$lt: 2},
"imdb.votes": {$gt: 50000},},
{"sort": {"awards.wins":1},
"projection": {"title": 1}})
```

Key	Value	Type
(1) ObjectId("573a13cef29313caabd8709c")	{ 2 fields }	Object
_id	ObjectId("573a13cef29313caabd8709c")	ObjectId
title	Justin Bieber: Never Say Never	String

```
# 11. Update GodFather with Latest IMDB Rating and TomatoMeter Rating
db.movies.findOneAndUpdate(
{"title": "The Godfather"},
{$set:
    {
"imdb.votes": 123456,
"tomatoes.viewer.rating": 4.76,
"tomatoes.viewer.numReviews": 654321
}
},
{"projection": {"imdb": 1, "tomatoes.viewer.rating": 1, "_id": 0},
"returnNewDocument": true}
)
```



```
db.movies.findOneAndUpdate(
{"title": "The Godfather"},
{$set:
    {
"imdb.votes": 123456,
"tomatoes.viewer.rating": 4.76,
"tomatoes.viewer.numReviews": 654321
}
},
{"projection": {"imdb": 1, "tomatoes.viewer.rating": 1, "_id": 0},
"returnNewDocument": true}
)
```

0.021 sec.

Key	Value	Type
(1)	{ 2 fields }	Object
imdb	{ 3 fields }	Object
rating	9.2	Double
votes	123456.0	Double
id	68646	Int32
tomatoes	{ 1 field }	Object
viewer	{ 1 field }	Object
rating	4.76	Double