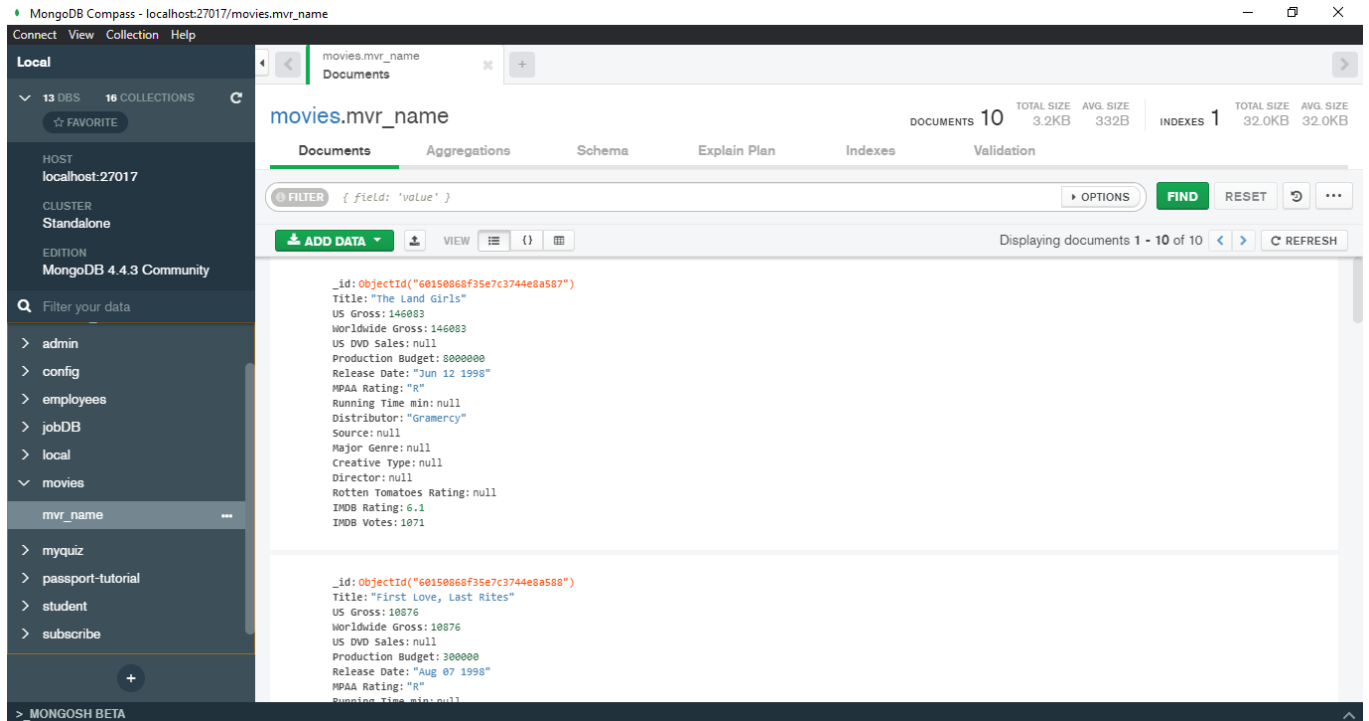


## LAB - 1

## Document store NoSQL: MongoDB



1. Create a database called 'movies' and *write* a MongoDB query to select database as 'movies'.

Code:

```
use movies
```

Output:

```
switched to db movies
```

2. Write a MongoDB query to display databases.

Code :

```
show dbs
```

Output :

```
admin    0.000GB
```

```
config 0.000GB  
local 0.000GB  
movies 0.000GB
```

3. Create a collection called 'mvr\_name'.(use capping and not capping)

Code(capping):

```
db.createCollection("mvr_name", { capped : true } )
```

Output:

```
{  
  "ok" : 0,  
  "errmsg" : "specify size:<n> when capped is true",  
  "code" : 14832,  
  "codeName" : "Location14832"  
}
```

Code(Not Crapping):

```
db.createCollection("mvr_name", { capped : false } )
```

Output:

```
{ "ok" : 1 }
```

4. Add 10 movies details to the collection named "mvr\_name". Each document consists of following properties as Reviewer\_name, movie\_name, genre (Action, Crime, Horror, Comedy, Animation) as array, director, rating (out of 10), timestamp ( date and year release), reviewer\_occupation.

Code:

```
db.mvr_name.insert([ {Reviewer_name:"Blue  
sattai",movie_name:"bigil",genre:["Action","comedy"],Director:"atlee",Ratin  
g:7,timestamp:new Date("2019-11-  
27"),Reviewer_occupation:"youtuber"}, {Reviewer_name:"Blue  
sattai",movie_name:"kappan",genre:["Action","comedy"],Director:"K.V.Anand",  
Rating:6,timestamp:new Date("2019-08-  
14"),Reviewer_occupation:"youtuber"}, {Reviewer_name:"Blue
```

```
sattai",movie_name:"Ner Konda
paarvai",genre:["Action"],Director:"H.Vinoth",Rating:7,timestamp:new
Date("2019-09-09"),Reviewer_occupation:"youtuber",{Reviewer_name:"Blue
sattai",movie_name:"IT-2",genre:["Horror"],Director:"Andres
Muschietti",Rating:8,timestamp:new Date("2019-04-
07"),Reviewer_occupation:"youtuber",{Reviewer_name:"Blue
sattai",movie_name:"Joker",genre:["Crime"],Director:"Todd
phillips",Rating:9,timestamp:new Date("2019-09-
08"),Reviewer_occupation:"youtuber",{Reviewer_name:"Blue
sattai",movie_name:"Your Name",genre:["Animation"],Director:"Makoto
Shinkai",Rating:9,timestamp:new Date("2019-11-
27"),Reviewer_occupation:"youtuber",{Reviewer_name:"Blue
sattai",movie_name:"Avengers endgame",genre:["Action"],Director:"Russo
brothers",Rating:9,timestamp:new Date("2019-06-
29"),Reviewer_occupation:"youtuber",{Reviewer_name:"Blue
sattai",movie_name:"robo",genre:["Action","adventure"],Director:"shankar",R
ating:8,timestamp:new Date("2010-09-
17"),Reviewer_occupation:"youtuber",{Reviewer_name:"Blue
sattai",movie_name:"robo
2.0",genre:["Action","adventure"],Director:"shankar",Rating:6,timestamp:new
Date("2018-10-16"),Reviewer_occupation:"youtuber",{Reviewer_name:"Blue
sattai",movie_name:"kaidhi",genre:["Action"],Director:"lokes",Rating:8,tim
estamp:new Date("2019-10-27"),Reviewer_occupation:"youtuber"}}))
```

Output:

```
BulkWriteResult({
  "writeErrors" : [ ],
  "writeConcernErrors" : [ ],
  "nInserted" : 10,
  "nUpserted" : 0,
  "nMatched" : 0,
  "nModified" : 0,
  "nRemoved" : 0,
  "upserted" : [ ]
})
```

5. Write a MongoDB query to display single document in a database and all the documents in a database. And also Use *pretty()* to display the results.

Code 1:

```
db.mvr;_name.find()
```

Output:

```
{ "_id" : ObjectId("5defd3ffe24626f63a775490"), "Reviewer_name" : "Blue  
sattai", "movie_name" : "bigil", "genre" : [ "Action", "comedy" ],  
"Director" : "atlee", "Rating" : 7, "timestamp" : ISODate("2019-11-  
27T00:00:00Z"), "Reviewer_occupation" : "youtuber" }  
{ "_id" : ObjectId("5defd3ffe24626f63a775491"), "Reviewer_name" : "Blue  
sattai", "movie_name" : "kappan", "genre" : [ "Action", "comedy" ],  
"Director" : "K.V.Anand", "Rating" : 6, "timestamp" : ISODate("2019-08-  
14T00:00:00Z"), "Reviewer_occupation" : "youtuber" }  
{ "_id" : ObjectId("5defd3ffe24626f63a775492"), "Reviewer_name" : "Blue  
sattai", "movie_name" : "Ner Konda paarvai", "genre" : [ "Action" ],  
"Director" : "H.Vinod", "Rating" : 7, "timestamp" : ISODate("2019-09-  
09T00:00:00Z"), "Reviewer_occupation" : "youtuber" }  
{ "_id" : ObjectId("5defd3ffe24626f63a775493"), "Reviewer_name" : "Blue  
sattai", "movie_name" : "IT-2", "genre" : [ "Horror" ], "Director" :  
"Andres Muschietti", "Rating" : 8, "timestamp" : ISODate("2019-04-  
07T00:00:00Z"), "Reviewer_occupation" : "youtuber" }  
{ "_id" : ObjectId("5defd3ffe24626f63a775494"), "Reviewer_name" : "Blue  
sattai", "movie_name" : "Joker", "genre" : [ "Crime" ], "Director" : "Todd  
phillips", "Rating" : 9, "timestamp" : ISODate("2019-09-08T00:00:00Z"),  
"Reviewer_occupation" : "youtuber" }  
{ "_id" : ObjectId("5defd3ffe24626f63a775495"), "Reviewer_name" : "Blue  
sattai", "movie_name" : "Your Name", "genre" : [ "Animation" ], "Director"  
: "Makoto Shinkai", "Rating" : 9, "timestamp" : ISODate("2019-11-  
27T00:00:00Z"), "Reviewer_occupation" : "youtuber" }  
{ "_id" : ObjectId("5defd3ffe24626f63a775496"), "Reviewer_name" : "Blue  
sattai", "movie_name" : "Avengers endgame", "genre" : [ "Action" ],  
"Director" : "Russo brothers", "Rating" : 9, "timestamp" : ISODate("2019-  
06-29T00:00:00Z"), "Reviewer_occupation" : "youtuber" }  
{ "_id" : ObjectId("5defd3ffe24626f63a775497"), "Reviewer_name" : "Blue  
sattai", "movie_name" : "robo", "genre" : [ "Action", "adventure" ],  
"Director" : "shankar", "Rating" : 8, "timestamp" : ISODate("2010-09-  
17T00:00:00Z"), "Reviewer_occupation" : "youtuber" }  
{ "_id" : ObjectId("5defd3ffe24626f63a775498"), "Reviewer_name" : "Blue  
sattai", "movie_name" : "robo 2.0", "genre" : [ "Action", "adventure" ],  
"Director" : "shankar", "Rating" : 6, "timestamp" : ISODate("2018-10-
```

```
16T00:00:00Z"), "Reviewer_occupation" : "youtuber" }  
{ "_id" : ObjectId("5defd3ffe24626f63a775499"), "Reviewer_name" : "Blue  
sattai", "movie_name" : "kaidhi", "genre" : [ "Action" ], "Director" :  
"lokesh", "Rating" : 8, "timestamp" : ISODate("2019-10-27T00:00:00Z"),  
"Reviewer_occupation" : "youtuber" }
```

Code 2(using pretty) :

```
db.mvr_name.find().pretty()
```

Output:

```
{  
  "_id" : ObjectId("5defd3ffe24626f63a775490"),  
  "Reviewer_name" : "Blue sattai",  
  "movie_name" : "bigil",  
  "genre" : [  
    "Action",  
    "comedy"  
  ],  
  "Director" : "atlee",  
  "Rating" : 7,  
  "timestamp" : ISODate("2019-11-27T00:00:00Z"),  
  "Reviewer_occupation" : "youtuber"  
}  
{  
  "_id" : ObjectId("5defd3ffe24626f63a775491"),  
  "Reviewer_name" : "Blue sattai",  
  "movie_name" : "kappan",  
  "genre" : [  
    "Action",  
    "comedy"  
  ],  
  "Director" : "K.V.Anand",  
  "Rating" : 6,  
  "timestamp" : ISODate("2019-08-14T00:00:00Z"),  
  "Reviewer_occupation" : "youtuber"  
}  
{  
  "_id" : ObjectId("5defd3ffe24626f63a775492"),  
  "Reviewer_name" : "Blue sattai",
```

```
    "movie_name" : "Nerkonda parvai",
    "genre" : [
        "Action"
    ],
    "Director" : "H.Vinod",
    "Rating" : 7,
    "timestamp" : ISODate("2019-09-09T00:00:00Z"),
    "Reviewer_occupation" : "youtuber"
}
{
    "_id" : ObjectId("5defd3ffe24626f63a775493"),
    "Reviewer_name" : "Blue sattai",
    "movie_name" : "IT-2",
    "genre" : [
        "Horror"
    ],
    "Director" : "Andres Muschietti",
    "Rating" : 8,
    "timestamp" : ISODate("2019-04-07T00:00:00Z"),
    "Reviewer_occupation" : "youtuber"
}
{
    "_id" : ObjectId("5defd3ffe24626f63a775494"),
    "Reviewer_name" : "Blue sattai",
    "movie_name" : "Joker",
    "genre" : [
        "Crime"
    ],
    "Director" : "Todd phillips",
    "Rating" : 9,
    "timestamp" : ISODate("2019-09-08T00:00:00Z"),
    "Reviewer_occupation" : "youtuber"
}
{
    "_id" : ObjectId("5defd3ffe24626f63a775495"),
    "Reviewer_name" : "Blue sattai",
    "movie_name" : "Your Name",
    "genre" : [
        "Animation"
```

```
    ],
    "Director" : "Makoto Shinkai",
    "Rating" : 9,
    "timestamp" : ISODate("2019-11-27T00:00:00Z"),
    "Reviewer_occupation" : "youtuber"
  }
  {
    "_id" : ObjectId("5defd3ffe24626f63a775496"),
    "Reviewer_name" : "Blue sattai",
    "movie_name" : "Avengers endgame",
    "genre" : [
      "Action"
    ],
    "Director" : "Russo brothers",
    "Rating" : 9,
    "timestamp" : ISODate("2019-06-29T00:00:00Z"),
    "Reviewer_occupation" : "youtuber"
  }
  {
    "_id" : ObjectId("5defd3ffe24626f63a775497"),
    "Reviewer_name" : "Blue sattai",
    "movie_name" : "robo",
    "genre" : [
      "Action",
      "adventure"
    ],
    "Director" : "shankar",
    "Rating" : 8,
    "timestamp" : ISODate("2010-09-17T00:00:00Z"),
    "Reviewer_occupation" : "youtuber"
  }
  {
    "_id" : ObjectId("5defd3ffe24626f63a775498"),
    "Reviewer_name" : "Blue sattai",
    "movie_name" : "robo 2.0",
    "genre" : [
      "Action",
      "adventure"
    ],
  },
```

```

    "Director" : "shankar",
    "Rating" : 6,
    "timestamp" : ISODate("2018-10-16T00:00:00Z"),
    "Reviewer_occupation" : "youtuber"
  }
  {
    "_id" : ObjectId("5defd3ffe24626f63a775499"),
    "Reviewer_name" : "Blue sattai",
    "movie_name" : "kaidhi",
    "genre" : [
      "Action"
    ],
    "Director" : "lokes",
    "Rating" : 8,
    "timestamp" : ISODate("2019-10-27T00:00:00Z"),
    "Reviewer_occupation" : "youtuber"
  }

```

6. find the highest and lowest rating movie and update the movie rating as maximum-minimum and minimum to Maximum.

Code:

```

db.mvr_name.aggregate([
  { "$group": { "_id": null, "MaximumValue": {
    "$max": "$Rating" }, "MinimumValue": { "$min": "$Rating" }}} ]);

```

Output:

```

{ "_id" : null, "MaximumValue" : 9, "MinimumValue" : 6 }

```

7. MongoDB Querying:

- Find the total number of rating movies rated by user belonging to specific occupation.

Code:

```

db.mvr_name.aggregate([{$group : {_id : "$Reviewer_occupation", sum : {$sum : 1}}}])

```

Output:

```

{ "_id" : "youtuber", "sum" : 20 }

```



- Find the average rating by reviewer and movie.

Code:

```
db.mvr_name.aggregate([{"$group": {"_id": null, "average rating":{"$avg": "$Rating" }}} ]);
```

Output:

```
{ "_id" : null, "average rating" : 7.7 }
```

- Find the movie name filmed between 2015 and 2017 and also find the 3<sup>rd</sup> highest rated movie. [Hint: use sort, limit, skip]

Code for movie filmed between 2015 and 2017:

```
db.mvr_name.find({"timestamp":{"$gte:new ISODate("2015-01-01T00:00:00Z"),$lte:new ISODate("2017-12-30T00:00:00Z")}})
```

Output:

```
{ "_id" : ObjectId("5defd3ffe24626f63a775498"), "Reviewer_name" : "Blue sattai", "movie_name" : "robo 2.0", "genre" : [ "Action", "adventure" ], "Director" : "shankar", "Rating" : 6, "timestamp" : ISODate("2018-10-16T00:00:00Z"), "Reviewer_occupation" : "youtuber" }
```

Code for 3rd highest:

```
db.mvr_name.find({},{"movie_name":1,_id:0}).sort({"Rating":-1}).limit(1).skip(2)
```

Output:

```
{ "movie_name" : "Avengers endgame" }
```

---