NO SQL LAB – 1

MONGODB QUERIES

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MONGODB INSTALLATION –

Step 1 — Download the MongoDB MSI Installer Package

Step 2 — Install MongoDB with the Installation Wizard

A. Make sure you are logged in as a user with Admin privileges. Then navigate to your downloads folder and double click on the .msi package you just downloaded. This will launch the installation wizard.
B. Click Next to start installation
C. Accept the licence agreement then click Next.
D. Select the Complete setup.
E. Select “Run service as Network Service user” and make a note of the data directory, we’ll need this later.
F. Click on Next and complete installation

QUEIRES -

1.[1mark] Create a database called ‘movies’ and write a MongoDB query to select database as ‘movies’.

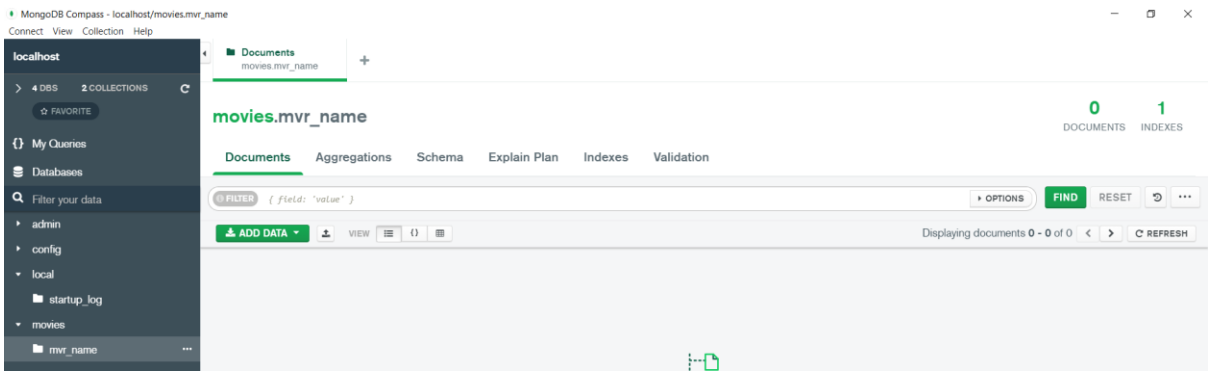
```
> use movies
switched to db movies
> db
movies
```

2. [1mark] Write a MongoDB query to display databases.

```
> show dbs
admin   0.000GB
config  0.000GB
local   0.000GB
movies  0.000GB
>
```

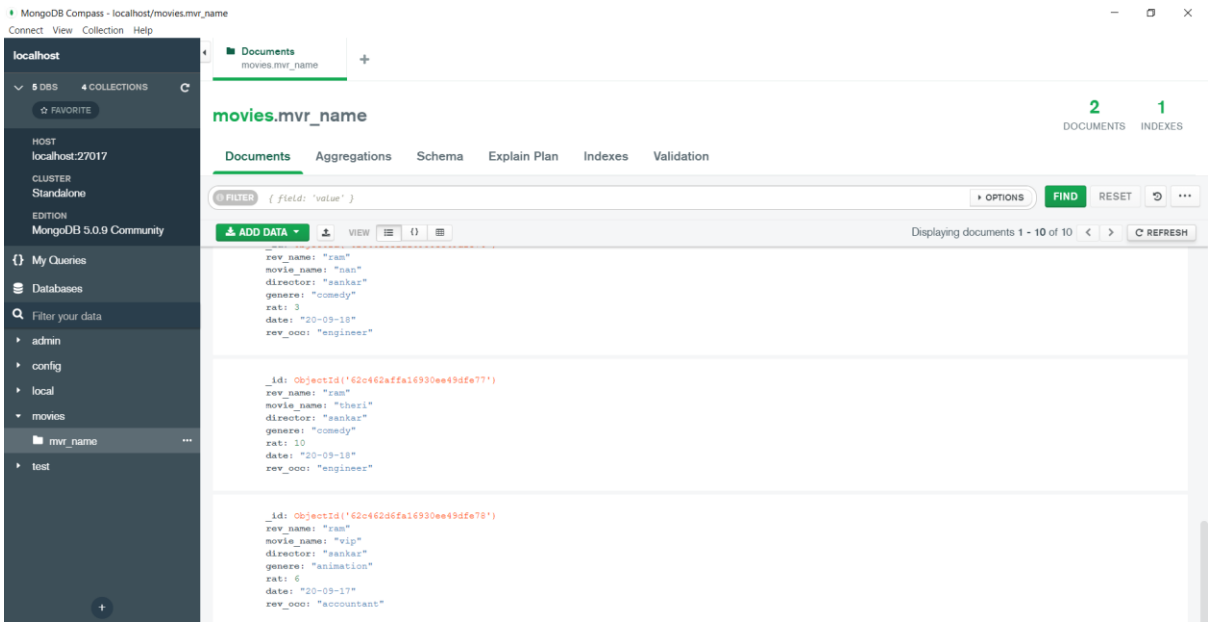
3.[1mark] Create a collection called ‘mvr_name’(use capping and not capping)

```
> db.createCollection("mvr_name")
{ "ok" : 1 }
```



4. Add 10 movies details to the collection named"mvr_name". Each document consists of following properties asReviewer_name,movie_name,genre (Action,Crime,Horror, Comedy, Animation) as array, director, rating(out of 10),timestamp(date and year release), reviewer_occupation.

```
> db.mvr_name.insert({rev_name:"ram",movie_name:"abc",director:"sankar",genere:"thriller",rat:7,date:"20-09-15",rev_occ:"doctor"})
WriteResult({ "nInserted" : 1 })
> db.mvr_name.insert({rev_name:"ram",movie_name:"vip",actor_name:"vijay",director:"sankar",genere:"animation",rat:6,date:"20-09-17",rev_occ:"accountant"})
WriteResult({ "nInserted" : 1 })
> db.mvr_name.insert({rev_name:"ram",movie_name:"arivu",director:"sankar",genere:"comedy",rat:9,date:"20-09-18",rev_occ:"artist"})
WriteResult({ "nInserted" : 1 })
> db.mvr_name.insert({rev_name:"ram",movie_name:"agam",director:"sankar",genere:"animation",rat:8,date:"20-09-18",rev_occ:"lawyer"})
WriteResult({ "nInserted" : 1 })
> db.mvr_name.insert({rev_name:"ram",movie_name:"abc",director:"sankar",genere:"thriller",rat:7,date:"20-09-15",rev_occ:"doctor"})
WriteResult({ "nInserted" : 1 })
> db.mvr_name.insert({rev_name:"ram",movie_name:"nan",director:"sankar",genere:"comedy",rat:3,date:"20-09-18",rev_occ:"engineer"})
WriteResult({ "nInserted" : 1 })
> db.mvr_name.insert({rev_name:"ram",movie_name:"theri",director:"sankar",genere:"comedy",rat:10,date:"20-09-18",rev_occ:"engineer"})
WriteResult({ "nInserted" : 1 })
> db.mvr_name.insert({rev_name:"ram",movie_name:"vip",director:"sankar",genere:"animation",rat:6,date:"20-09-17",rev_occ:"accountant"})
WriteResult({ "nInserted" : 1 })
>
```



5.[1mark] Write a MongoDB query to display single document in a database and all the documents in a database and Use pretty()for display the results.

C:\Program Files\MongoDB\Server\5.0\bin\mongo.exe

```
> db.mvr_name.find().pretty()
{
        "_id" : ObjectId("62c4433068ea00bb460919b4"),
        "rev_name" : "ram",
        "movie_name" : "ABC",
        "director" : "sankar",
        "genere" : "comedy",
        "rat" : 10,
        "date" : "20-09-18",
        "rev_occ" : "engineer"
}
{
        "_id" : ObjectId("62c4589968ea00bb460919b5"),
        "rev_name" : "ram",
        "movie_name" : "ABC",
        "director" : "sankar",
        "genere" : "comedy",
        "rat" : 10,
        "date" : "20-09-18",
        "rev_occ" : "engineer"
}
{
        "_id" : ObjectId("62c46180fa16930ee49dfe71"),
        "rev_name" : "ram",
        "movie_name" : "abc",
        "director" : "sankar",
        "genere" : "thriller",
        "rat" : 7,
        "date" : "20-09-15",
        "rev_occ" : "doctor"
}
{
        "_id" : ObjectId("62c461b2fa16930ee49dfe72"),
        "rev_name" : "ram",
        "movie_name" : "vip",
        "actor_name" : "vijay",
        "director" : "sankar",
        "genere" : "animation",
        "rat" : 6,
        "date" : "20-09-17",
        "rev_occ" : "accountant"
}
{
        "_id" : ObjectId("62c461eafa16930ee49dfe73"),
        "rev_name" : "ram",
        "movie_name" : "arivu",
        "director" : "sankar",
        "genere" : "comedy",
        "rat" : 9,
        "date" : "20-09-18",
```

6.[1mark] find the highest and lowest rating movie and update the movie rating as maximum-minimum and minimum to Maximum.

```
> db.mvr_name.aggregate([
... {"$group":{
... "_id":null,
... "max":{"$max":"$rat"},
...  "min":{"$min":"$rat"}
... }}
... ])
{ "_id" : null, "max" : 10, "min" : 3 }
>
```

7.[1 mark] find the total number of movies rated by user belonging to specific occupation.

```
> db.mvr_name.aggregate(
... [
... {
...  $group:{_id:"$rev_occ",Total:{$sum:1}}}
... ]
... );
{ "_id" : "engineer", "Total" : 4 }
{ "_id" : "doctor", "Total" : 2 }
{ "_id" : "lawyer", "Total" : 1 }
{ "_id" : "accountant", "Total" : 2 }
{ "_id" : "artist", "Total" : 1 }
>
```

8.[1 mark] find the average rating by reviewer and movie.

```
C:\Program Files\MongoDB\Server\5.0\bin\mongo.exe
> db.mvr_name.aggregate([{$unwind: "$movie_name"}, {$group: {_id: "$movie_name", ratingAvg: {$avg: "$rat"}}}])
{ "_id" : "arivu", "ratingAvg" : 9 }
{ "_id" : "agam", "ratingAvg" : 8 }
{ "_id" : "theri", "ratingAvg" : 10 }
{ "_id" : "vip", "ratingAvg" : 6 }
{ "_id" : "nan", "ratingAvg" : 3 }
{ "_id" : "abc", "ratingAvg" : 7 }
{ "_id" : "ABC", "ratingAvg" : 10 }
>
```

```
> db.mvr_name.aggregate([{$unwind: "$rev_name"}, {$group: {_id: "$rev_name", ratingAvg: {$avg: "$rat"}}}])
{ "_id" : "ram", "ratingAvg" : 7.6 }
>
```

9. [1 mark] find the movie name filmed between 2015 and 2017.

```
> db.mvr_name.find( { date: { $gt: new Date('2015-01-01'), $lt: new Date('2017-01-01') } } )
>  db.mvr_name.find( { date: { $gt: new Date('2015-01-01'), $lt: new Date('2017-01-01') } } );
>
```

10.[1 mark] find the 3rd highest rated movie. [Hint: use sort, limit, skip]

```
> db.mvr_name.find({}).sort({"rat":-1}).skip(2).limit(1)
{ "_id" : ObjectId("62c4433068ea00bb460919b4"), "rev_name" : "ram", "movie_name" : "ABC", "director" : "sankar", "genere" : "comedy", "rat" : 10, "date" : "20-09-18", "rev_occ" : "engineer" }
>
```