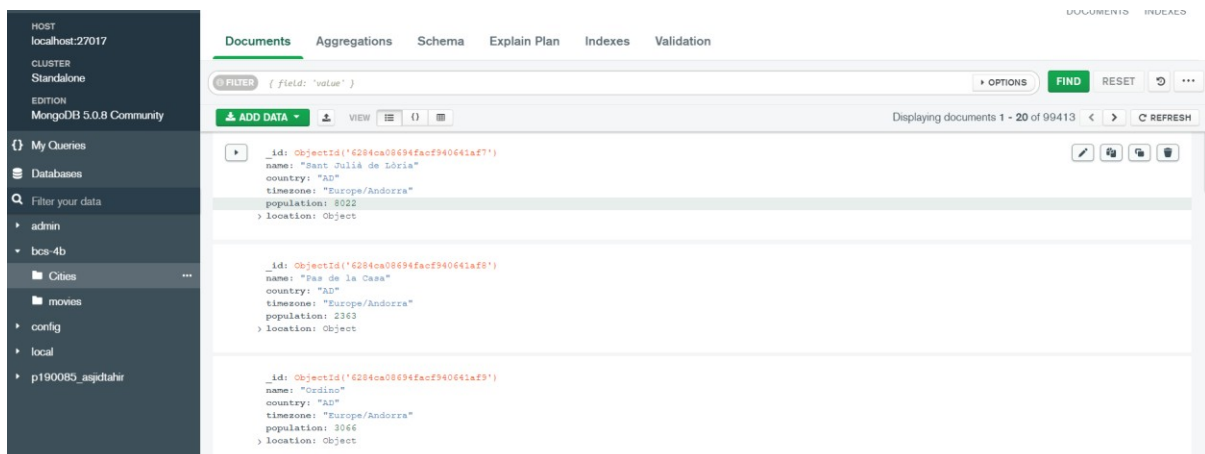


NAME: AHMED ALI
ROLL NO: P19-0042
LAB # 13

```
to permanently disable c
---
> show dbs
admin                0.000GB
bcs-4b               0.007GB
config               0.000GB
local                0.000GB
p190085_asjdtahir    0.000GB
> use bcs-4b
switched to db bcs-4b
> show tables
Cities
movies
>
```



Exercises:

```
1) : db.Cities.find({population:{$lt:30,$ne:0}}).limit(2).pretty()
```

```

>
> db.Cities.find({population:{$lt:30,$ne:0}}).limit(2).pretty()
{
  "_id" : ObjectId("6284ca0c694facf94064c276"),
  "name" : "Tanggul",
  "country" : "ID",
  "timezone" : "Asia/Jakarta",
  "population" : 3,
  "location" : {
    "latitude" : -8.1645,
    "longitude" : 113.4525
  }
}
{
  "_id" : ObjectId("6284ca0d694facf94065000f"),
  "name" : "Ereencav",
  "country" : "MN",
  "timezone" : "Asia/Choibalsan",
  "population" : 23,
  "location" : {
    "longitude" : 49.8807,
    "latitude" : 115.72526
  }
}
>

```

```

2) : db.Cities.count({timezone : "Asia/Jakarta"})

```

```

> db.Cities.count({timezone : "Asia/Jakarta"})
1430
>

```

```

3) : db.Cities.find({country :
"PK",timezone:"Asia/Karachi"}).sort({population:-1}).forEach(printjson)

```

Note:

It is going to print 423 docs.

```

db.cities.find({country : "PK",timezone:"Asia/Karachi"}).sort({population:-1}).forEach(printjson)

  "_id" : ObjectId("60c46d4a95da44e07b6918a1"),
  "name" : "Karachi",
  "country" : "PK",
  "timezone" : "Asia/Karachi",
  "population" : 11624219,
  "location" : {
    "longitude" : 24.9056,
    "latitude" : 67.0822
  }

  "_id" : ObjectId("60c46d4a95da44e07b691875"),
  "name" : "Lahore",
  "country" : "PK",
  "timezone" : "Asia/Karachi",
  "population" : 6310888,
  "location" : {
    "longitude" : 31.54972,
    "latitude" : 74.34361
  }

  "_id" : ObjectId("60c46d4a95da44e07b6918f2"),

```

4) :

```

db.Cities.getIndexes()
db.Cities.createIndex({population:1})
db.Cities.dropIndex({population:1})

```

```

>
>
> db.Cities.getIndexes()
[ { "v" : 2, "key" : { "_id" : 1 }, "name" : "_id_" } ]
> db.Cities.createIndex({population:1})
{
  "numIndexesBefore" : 1,
  "numIndexesAfter" : 2,
  "createdCollectionAutomatically" : false,
  "ok" : 1
}
> db.Cities.dropIndex({population:1})
{ "nIndexesWas" : 2, "ok" : 1 }
>

```

MongoDB Compass Tasks:

5:

i) {timezone : "Europe/Andorra"}

bcS-4b.Cities

99.4k 1
DOCUMENTS INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER {timezone : "Europe/Andorra"} **OPTIONS** **FIND** **RESET** **...**

PROJECT { field: 0 }

SORT { field: -1 } or [['field', -1]] **MAX TIME MS** 60000

COLLATION { locale: 'simple' } **SKIP** 0 **LIMIT** 0

ADD DATA **VIEW** **...**

Displaying documents 1 - 9 of 9 **REFRESH**

```
{
  "_id": ObjectId("6284ca08694facf940641af7"),
  "name": "Sant Julià de Lòria",
  "country": "AD",
  "timezone": "Europe/Andorra",
  "population": 8022,
  "location": Object
}
```

```
{
  "_id": ObjectId("6284ca08694facf940641af8"),
  "name": "Fas de la Casa",
  "country": "AD",
  "timezone": "Europe/Andorra",
  "population": 2363,
  "location": Object
}
```

```
{
  "_id": ObjectId("6284ca08694facf940641af9"),
  "name": "Ordino",
  "country": "AD",
  "timezone": "Europe/Andorra",
  "population": 3066,
  "location": Object
}
```

ii) {population : { \$gt: 12955000 } ,
country : "AR"}

bcS-4b.Cities

99.4k 1
DOCUMENTS INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER {population : { \$gt: 12955000 } , country : "AR"} **OPTIONS** **FIND** **RESET** **...**

PROJECT { field: 0 }

SORT { field: -1 } or [['field', -1]] **MAX TIME MS** 60000

COLLATION { locale: 'simple' } **SKIP** 0 **LIMIT** 0

ADD DATA **VIEW** **...**

Displaying documents 1 - 1 of 1 **REFRESH**

```
{
  "_id": ObjectId("6284ca08694facf940641dda"),
  "name": "Buenos Aires",
  "country": "AR",
  "timezone": "America/Argentina/Buenos_Aires",
  "population": 13076300,
  "location": Object
}
```

iii) Filter:

```
{"location.longitude":{$eq:1.6}}
```

Project:

```
{location:1,population:1,_id:0}
```

bcs-4b.Cities

99.4k DOCUMENTS 1 INDEXES

Documents Aggregations Schema Explain Plan Indexes Validation

FILTER { "location.longitude": { \$eq: 1.6 } }
▼ OPTIONS

PROJECT { location: 1, population: 1, _id: 0 }

SORT { field: -1 } or [['field', -1]]
MAX TIME MS 60000

COLLATION { locale: 'simple' }
SKIP 0
LIMIT 0

VIEW [] [] []

Displaying documents 1 - 2 of 2 < > C REFRESH

```

population: 73176
location: Object
  longitude: 1.6
  latitude: 103.65

population: 75350
location: Object
  longitude: 1.6
  latitude: 103.81667
    
```