5420 Assignment-4-Team-19

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Team members names with Student id:

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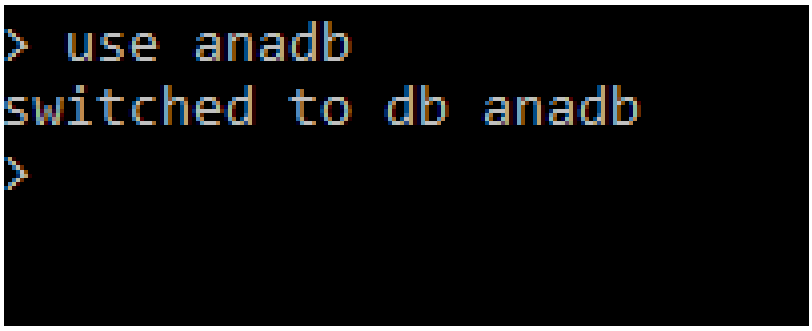
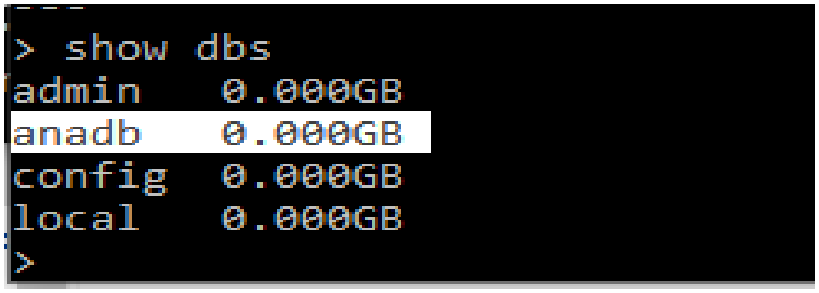
1. **I have created a database named “anadb”.**

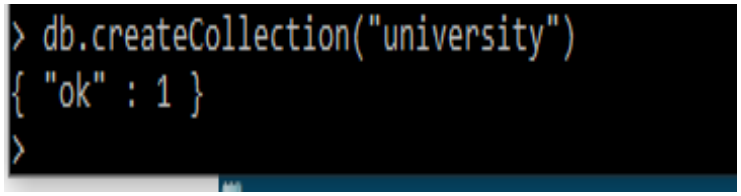
The command that is used is **“use anadb”.**

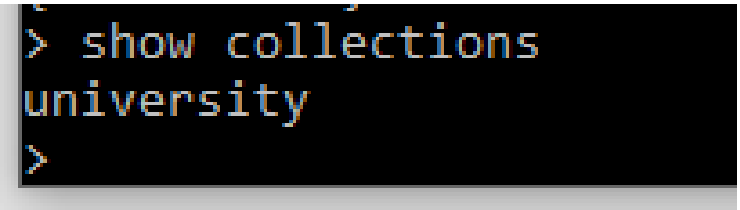


After creating the document when I issued “show dbs"



2. **I have created a collection in the database “anadb” and named it “university”.**





3. **I have created a JSON file named “Assg4data.json” and I have inserted five documents and each of these five documents have six fields.**

4. **Then, I have loaded the data into the collection “university”.**

```
> db.university.insert([{"StudentID": "5555", "FirstName": "Anannya", "LastName": "Chatterjee",
 "City": "Irving", "State": "Texas", "#CoursesEnrolled": "3"},
... {"StudentID": "6000", "FirstName": "Steven", "LastName": "Clark", "City": "Atlanta", "State
": "Georgia", "#CoursesEnrolled": "2"},
... {"StudentID": "7001", "FirstName": "Olivia", "LastName": "Backus", "City": "Erlanger", "Sta
te": "Kentucky", "#CoursesEnrolled": "3"},
... {"StudentID": "8999", "FirstName": "Douglus", "LastName": "Roth", "City": "Mason", "State":
 "Ohio", "#CoursesEnrolled": "4"},
... {"StudentID": "9005", "FirstName": "Oindrila", "LastName": "Jones", "City": "Seattle", "Sta
te": "Washington", "#CoursesEnrolled": "3"}])
BulkWriteResult({
        "writeErrors" : [ ],
        "writeConcernErrors" : [ ],
        "nInserted" : 5,
        "nUpserted" : 0,
        "nMatched" : 0,
        "nModified" : 0,
        "nRemoved" : 0,
        "upserted" : [ ]
})
>
```

This loading of data could also have been done by using the below utility command.

```
D:\Bubai-Megha\Megha\RSSR UNT MS-BUAN\First Semester\Foundation of Database 5420\Assignment 4>mongoimport --db=anadb --c
ollection=university --file=Assg4data.json
```

5. **Now I am displaying the list of all my documents without the _id.**

The command used is:

db.university.find({},{id:0})

```
> db.university.find({}, {_id:0})
{ "StudentID" : "5555", "FirstName" : "Anannya", "LastName" : "Chatterjee", "City" : "Irving", "State" : "Texas", "#CoursesEnrolled" : "3" }
{ "StudentID" : "6000", "FirstName" : "Steven", "LastName" : "Clark", "City" : "Atlanta", "State" : "Georgia", "#CoursesEnrolled" : "2" }
{ "StudentID" : "7001", "FirstName" : "Olivia", "LastName" : "Backus", "City" : "Erlanger", "State" : "Kentucky", "#CoursesEnrolled" : "3" }
{ "StudentID" : "8999", "FirstName" : "Douglus", "LastName" : "Roth", "City" : "Mason", "State" : "Ohio", "#CoursesEnrolled" : "4" }
{ "StudentID" : "9005", "FirstName" : "Oindrila", "LastName" : "Jones", "City" : "Seattle", "State" : "Washington", "#CoursesEnrolled" : "3" }
>
```

6. **I have added one additional document into the collection named university with FirstName as “Kelli”.**

```
>
> db.university.insert({"StudentID": "9898", "FirstName": "Kelli", "LastName": "Thomason", "City": "Erlanger", "State": "Kentucky", "#Courses
Enrolled": "4"})
WriteResult({ "nInserted" : 1 })
> db.university.find()
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139db"), "StudentID" : "5555", "FirstName" : "Anannya", "LastName" : "Chatterjee", "City" : "Irving",
"State" : "Texas", "#CoursesEnrolled" : "3" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139dc"), "StudentID" : "6000", "FirstName" : "Steven", "LastName" : "Clark", "City" : "Atlanta", "Stat
e" : "Georgia", "#CoursesEnrolled" : "2" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139dd"), "StudentID" : "7001", "FirstName" : "Olivia", "LastName" : "Backus", "City" : "Erlanger", "St
ate" : "Kentucky", "#CoursesEnrolled" : "3" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139de"), "StudentID" : "8999", "FirstName" : "Douglus", "LastName" : "Roth", "City" : "Mason", "State"
 : "Ohio", "#CoursesEnrolled" : "4" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139df"), "StudentID" : "9005", "FirstName" : "Oindrila", "LastName" : "Jones", "City" : "Seattle", "St
ate" : "Washington", "#CoursesEnrolled" : "3" }
{ "_id" : ObjectId("5fbf641ff7c21140c5b139e0"), "StudentID" : "9898", "FirstName" : "Kelli", "LastName" : "Thomason", "City" : "Erlanger", "S
tate" : "Kentucky", "#CoursesEnrolled" : "4" }
>
```

7. **I have now removed one of the documents from the university collection: I have removed here the document with LastName as “Thomason”.**

```
> db.university.remove({"LastName" : "Thomason"})
WriteResult({ "nRemoved" : 1 })
> db.university.find()
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139db"), "StudentID" : "5555", "FirstName" : "Anannya", "LastName" : "Chatterjee", "City" : "Irving",
"State" : "Texas", "#CoursesEnrolled" : "3" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139dc"), "StudentID" : "6000", "FirstName" : "Steven", "LastName" : "Clark", "City" : "Atlanta", "Stat
e" : "Georgia", "#CoursesEnrolled" : "2" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139dd"), "StudentID" : "7001", "FirstName" : "Olivia", "LastName" : "Backus", "City" : "Erlanger", "St
ate" : "Kentucky", "#CoursesEnrolled" : "3" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139de"), "StudentID" : "8999", "FirstName" : "Douglus", "LastName" : "Roth", "City" : "Mason", "State"
 : "Ohio", "#CoursesEnrolled" : "4" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139df"), "StudentID" : "9005", "FirstName" : "Oindrila", "LastName" : "Jones", "City" : "Seattle", "St
ate" : "Washington", "#CoursesEnrolled" : "3" }
>
```

8. I have updated two different documents. For each document, I have updated a different field.

a. Updated ‘LastName’ of “Chatterjee” to “Mukherjee”

```
>
> db.university.update({"LastName" : "Chatterjee"},{$set:{"LastName" : "Mukherjee"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.university.find()
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139db"), "StudentID" : "5555", "FirstName" : "Anannya", "LastName" : "Mukherjee", "City" : "Irving", "
State" : "Texas", "#CoursesEnrolled" : "3" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139dc"), "StudentID" : "6000", "FirstName" : "Steven", "LastName" : "Clark", "City" : "Atlanta", "Stat
e" : "Georgia", "#CoursesEnrolled" : "2" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139dd"), "StudentID" : "7001", "FirstName" : "Olivia", "LastName" : "Backus", "City" : "Erlanger", "St
ate" : "Kentucky", "#CoursesEnrolled" : "3" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139de"), "StudentID" : "8999", "FirstName" : "Douglus", "LastName" : "Roth", "City" : "Mason", "State"
 : "Ohio", "#CoursesEnrolled" : "4" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139df"), "StudentID" : "9005", "FirstName" : "Oindrila", "LastName" : "Jones", "City" : "Seattle", "St
ate" : "Washington", "#CoursesEnrolled" : "3" }
>
```

b. Updated ‘#CoursesEnrolled’ from 4 to 3 for the student named Douglus .

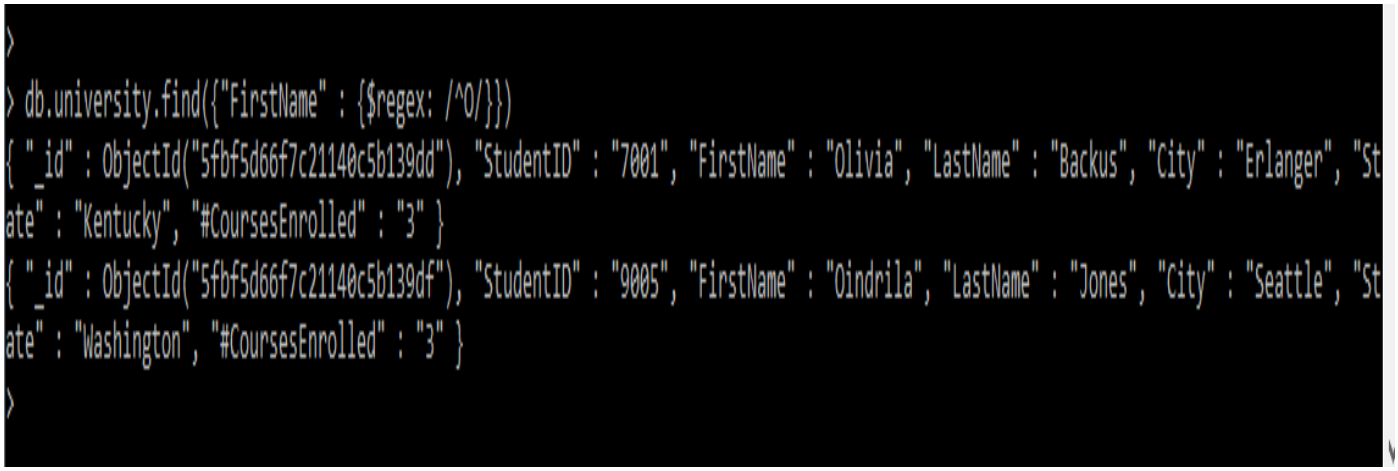
```
>
> db.university.update({"#CoursesEnrolled" : "4"},{$set:{"#CoursesEnrolled" : "3"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.university.find()
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139db"), "StudentID" : "5555", "FirstName" : "Anannya", "LastName" : "Mukherjee", "City" : "Irving", "
State" : "Texas", "#CoursesEnrolled" : "3" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139dc"), "StudentID" : "6000", "FirstName" : "Steven", "LastName" : "Clark", "City" : "Atlanta", "Stat
e" : "Georgia", "#CoursesEnrolled" : "2" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139dd"), "StudentID" : "7001", "FirstName" : "Olivia", "LastName" : "Backus", "City" : "Erlanger", "St
ate" : "Kentucky", "#CoursesEnrolled" : "3" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139de"), "StudentID" : "8999", "FirstName" : "Douglus", "LastName" : "Roth", "City" : "Mason", "State"
 : "Ohio", "#CoursesEnrolled" : "3" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139df"), "StudentID" : "9005", "FirstName" : "Oindrila", "LastName" : "Jones", "City" : "Seattle", "St
ate" : "Washington", "#CoursesEnrolled" : "3" }
>
```

9. **Here I have showed a pretty listing of my document but after projecting every other field only.**

```
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.university.find()
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139db"), "StudentID" : "5555", "FirstName" : "Anannya", "LastName" : "Mukherjee", "City" : "Irving", "
State" : "Texas", "#CoursesEnrolled" : "3" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139dc"), "StudentID" : "6000", "FirstName" : "Steven", "LastName" : "Clark", "City" : "Atlanta", "Stat
e" : "Georgia", "#CoursesEnrolled" : "2" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139dd"), "StudentID" : "7001", "FirstName" : "Olivia", "LastName" : "Backus", "City" : "Erlanger", "St
ate" : "Kentucky", "#CoursesEnrolled" : "3" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139de"), "StudentID" : "8999", "FirstName" : "Douglus", "LastName" : "Roth", "City" : "Mason", "State"
 : "Ohio", "#CoursesEnrolled" : "3" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139df"), "StudentID" : "9005", "FirstName" : "Oindrila", "LastName" : "Jones", "City" : "Seattle", "St
ate" : "Washington", "#CoursesEnrolled" : "3" }
> db.university.find({},{StudentID:1,LastName:1,State:1})
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139db"), "StudentID" : "5555", "LastName" : "Mukherjee", "State" : "Texas" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139dc"), "StudentID" : "6000", "LastName" : "Clark", "State" : "Georgia" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139dd"), "StudentID" : "7001", "LastName" : "Backus", "State" : "Kentucky" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139de"), "StudentID" : "8999", "LastName" : "Roth", "State" : "Ohio" }
{ "_id" : ObjectId("5fbf5d66f7c21140c5b139df"), "StudentID" : "9005", "LastName" : "Jones", "State" : "Washington" }
>
```

```
> db.university.find({},{StudentID:1,LastName:1,State:1}).pretty()
{
        "_id" : ObjectId("5fbf5d66f7c21140c5b139db"),
        "StudentID" : "5555",
        "LastName" : "Mukherjee",
        "State" : "Texas"
}
{
        "_id" : ObjectId("5fbf5d66f7c21140c5b139dc"),
        "StudentID" : "6000",
        "LastName" : "Clark",
        "State" : "Georgia"
}
{
        "_id" : ObjectId("5fbf5d66f7c21140c5b139dd"),
        "StudentID" : "7001",
        "LastName" : "Backus",
        "State" : "Kentucky"
}
{
        "_id" : ObjectId("5fbf5d66f7c21140c5b139de"),
        "StudentID" : "8999",
        "LastName" : "Roth",
        "State" : "Ohio"
}
{
        "_id" : ObjectId("5fbf5d66f7c21140c5b139df"),
        "StudentID" : "9005",
        "LastName" : "Jones",
        "State" : "Washington"
}
>
```

10. **Now here I am picking the “FirstName” field in the document and displaying only those documents where the “FirstName” is starting with vowel “O”.**



Here I conclude the Assignment #4.

Thank you.

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