

Assignment-4

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1. Created a database named "ndb".

Command: use ndb

```
> show dbs
admin      0.000GB
config     0.000GB
local      0.000GB
mylib      0.000GB
ndb        0.000GB
test       0.000GB
tymongo    0.000GB
```

2. Created a collection in the database and named it School1.

```
> db.createCollection("school1")
{ "ok" : 1 }
>
```

3. created a JSON file and I have inserted five documents with five fields in each document.

```
doc - Notepad
File Edit Format View Help
[{"Studentid": "111", "FirstName": "Andrew", "LastName": "Wayne", "No of courses": "3", "Semester": "First"}
{"Studentid": "222", "FirstName": "Lucius", "LastName": "Fox", "No of courses": "3", "Semester": "Second"}
{"Studentid": "333", "FirstName": "Richard", "LastName": "Grayson", "No of courses": "3", "Semester": "Third"}
{"Studentid": "444", "FirstName": "Emily", "LastName": "Rhodes", "No of courses": "3", "Semester": "Forth"}
{"Studentid": "555", "FirstName": "Ishan", "LastName": "Guptha", "No of courses": "3", "Semester": "Fifth"}]
```

4. Loaded the data into the collection school1:

```
F:\UNT\fall 2020\1st sem\5420>mongoimport --db=ndb --collection=school1 --file=doc.json
2020-11-21T11:24:04.712-0600   connected to: mongodb://localhost/
2020-11-21T11:24:04.718-0600   5 document(s) imported successfully. 0 document(s) failed to import.
```

5. Displaying the list of all my documents without the _id.

Command: db.school1.find({}, {id:0});

```
> db.school1.find({}, {id:0})
{ "Studentid" : "444", "FirstName" : "Emily", "LastName" : "Rhodes", "No of courses" : "3", "Semester" : "Forth" }
{ "Studentid" : "333", "FirstName" : "Richard", "LastName" : "Grayson", "No of courses" : "3", "Semester" : "Third" }
{ "Studentid" : "111", "FirstName" : "Andrew", "LastName" : "Wayne", "No of courses" : "3", "Semester" : "First" }
{ "Studentid" : "222", "FirstName" : "Lucius", "LastName" : "Fox", "No of courses" : "3", "Semester" : "Second" }
{ "Studentid" : "555", "FirstName" : "Ishan", "LastName" : "Guptha", "No of courses" : "3", "Semester" : "Fifth" }
>
```

6. Added one additional document into collection (school1) with name HIMAJA.

```
> db.school1.insert({ "Studentid" : "666", "FirstName" : "Himaja", "LastName" : "Mekala", "No of courses" : "3", "Semester" : "First" })
WriteResult({ "nInserted" : 1 })
> db.school1.find()
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c7"), "Studentid" : "444", "FirstName" : "Emily", "LastName" : "Rhodes", "No of courses" : "3", "Semester" : "Forth" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c8"), "Studentid" : "333", "FirstName" : "Richard", "LastName" : "Grayson", "No of courses" : "3", "Semester" : "Third" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c9"), "Studentid" : "111", "FirstName" : "Andrew", "LastName" : "Wayne", "No of courses" : "3", "Semester" : "First" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42ca"), "Studentid" : "222", "FirstName" : "Lucius", "LastName" : "Fox", "No of courses" : "3", "Semester" : "Second" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42cb"), "Studentid" : "555", "FirstName" : "Ishan", "LastName" : "Guptha", "No of courses" : "3", "Semester" : "Fifth" }
{ "_id" : ObjectId("5fb9578b769835d6a4682664"), "Studentid" : "666", "FirstName" : "Himaja", "LastName" : "Mekala", "No of courses" : "3", "Semester" : "First" }
>
```

7. Remove one of the documents from collection:

I have removed the document with name HIMAJA which I recently added by using Firstname.

```
> db.school1.remove({ "FirstName" : "Himaja" })
WriteResult({ "nRemoved" : 1 })
> db.school1.find()
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c7"), "Studentid" : "444", "FirstName" : "Emily", "LastName" : "Rhodes", "No of courses" : "3", "Semester" : "Forth" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c8"), "Studentid" : "333", "FirstName" : "Richard", "LastName" : "Grayson", "No of courses" : "3", "Semester" : "Third" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c9"), "Studentid" : "111", "FirstName" : "Andrew", "LastName" : "Wayne", "No of courses" : "3", "Semester" : "First" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42ca"), "Studentid" : "222", "FirstName" : "Lucius", "LastName" : "Fox", "No of courses" : "3", "Semester" : "Second" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42cb"), "Studentid" : "555", "FirstName" : "Ishan", "LastName" : "Guptha", "No of courses" : "3", "Semester" : "Fifth" }
>
```

8. Updated two different documents, for each document with a different field.

i. Updated firstname of student "Richard" to "Mark"

```
> db.school1.update({ "FirstName" : "Richard" }, { $set: { "FirstName" : "Mark" } })
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.school1.find()
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c7"), "Studentid" : "444", "FirstName" : "Emily", "LastName" : "Rhodes", "No of courses" : "3", "Semester" : "Forth" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c8"), "Studentid" : "333", "FirstName" : "Mark", "LastName" : "Grayson", "No of courses" : "3", "Semester" : "Third" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c9"), "Studentid" : "111", "FirstName" : "Andrew", "LastName" : "Wayne", "No of courses" : "3", "Semester" : "First" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42ca"), "Studentid" : "222", "FirstName" : "Lucius", "LastName" : "Fox", "No of courses" : "3", "Semester" : "Second" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42cb"), "Studentid" : "555", "FirstName" : "Ishan", "LastName" : "Guptha", "No of courses" : "3", "Semester" : "Fifth" }
>
```

Updated firstname of student “Mark” to “Erica”

```
> db.school1.update({"FirstName" : "Mark"},{$set:{"FirstName" : "Erica"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.school1.find({})
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c7"), "Studentid" : "444", "FirstName" : "Emily", "LastName" : "Rhodes", "No of courses" : "4", "Semester" : "Forth" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c8"), "Studentid" : "333", "FirstName" : "Erica", "LastName" : "Grayson", "No of courses" : "3", "Semester" : "Third" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c9"), "Studentid" : "111", "FirstName" : "Andrew", "LastName" : "Wayne", "No of courses" : "3", "Semester" : "First" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42ca"), "Studentid" : "222", "FirstName" : "Lucius", "LastName" : "Fox", "No of courses" : "3", "Semester" : "Second" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42cb"), "Studentid" : "555", "FirstName" : "Ishan", "LastName" : "Guptha", "No of courses" : "3", "Semester" : "Fifth" }
```

ii . Updated No of courses from 3 to 4 for the student “Emily.”

```
> db.school1.update({"No of courses" : "3"},{$set:{"No of courses" : "4"}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.school1.find({})
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c7"), "Studentid" : "444", "FirstName" : "Emily", "LastName" : "Rhodes", "No of courses" : "4", "Semester" : "Forth" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c8"), "Studentid" : "333", "FirstName" : "Mark", "LastName" : "Grayson", "No of courses" : "3", "Semester" : "Third" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c9"), "Studentid" : "111", "FirstName" : "Andrew", "LastName" : "Wayne", "No of courses" : "3", "Semester" : "First" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42ca"), "Studentid" : "222", "FirstName" : "Lucius", "LastName" : "Fox", "No of courses" : "3", "Semester" : "Second" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42cb"), "Studentid" : "555", "FirstName" : "Ishan", "LastName" : "Guptha", "No of courses" : "3", "Semester" : "Fifth" }
>
```

9. Show a pretty listing of your document but after projecting every other field only.

```
> db.school1.find({})
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c7"), "Studentid" : "444", "FirstName" : "Emily", "LastName" : "Rhodes", "No of courses" : "4", "Semester" : "Forth" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c8"), "Studentid" : "333", "FirstName" : "Erica", "LastName" : "Grayson", "No of courses" : "3", "Semester" : "Third" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c9"), "Studentid" : "111", "FirstName" : "Andrew", "LastName" : "Wayne", "No of courses" : "3", "Semester" : "First" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42ca"), "Studentid" : "222", "FirstName" : "Lucius", "LastName" : "Fox", "No of courses" : "3", "Semester" : "Second" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42cb"), "Studentid" : "555", "FirstName" : "Ishan", "LastName" : "Guptha", "No of courses" : "3", "Semester" : "Fifth" }
> db.school1.find({}, {Studentid:1, LastName:1, Semester:1})
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c7"), "Studentid" : "444", "LastName" : "Rhodes", "Semester" : "Forth" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c8"), "Studentid" : "333", "LastName" : "Grayson", "Semester" : "Third" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c9"), "Studentid" : "111", "LastName" : "Wayne", "Semester" : "First" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42ca"), "Studentid" : "222", "LastName" : "Fox", "Semester" : "Second" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42cb"), "Studentid" : "555", "LastName" : "Guptha", "Semester" : "Fifth" }
```

```

> db.school1.find({}, {Studentid:1, LastName:1, Semester:1}).pretty()
{
  "_id" : ObjectId("5fb94d34ad0132ff365c42c7"),
  "Studentid" : "444",
  "LastName" : "Rhodes",
  "Semester" : "Forth"
}
{
  "_id" : ObjectId("5fb94d34ad0132ff365c42c8"),
  "Studentid" : "333",
  "LastName" : "Grayson",
  "Semester" : "Third"
}
{
  "_id" : ObjectId("5fb94d34ad0132ff365c42c9"),
  "Studentid" : "111",
  "LastName" : "Wayne",
  "Semester" : "First"
}
{
  "_id" : ObjectId("5fb94d34ad0132ff365c42ca"),
  "Studentid" : "222",
  "LastName" : "Fox",
  "Semester" : "Second"
}
{
  "_id" : ObjectId("5fb94d34ad0132ff365c42cb"),
  "Studentid" : "555",
  "LastName" : "Guptha",
  "Semester" : "Fifth"
}
>

```

10.Fields in the document starting with vowels.

```

> db.school1.find({"FirstName" : {$regex: /^E/}})
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c7"), "Studentid" : "444", "FirstName" : "Emily", "LastName" : "Rhodes", "No of courses" : "4", "Semester" : "Forth" }
{ "_id" : ObjectId("5fb94d34ad0132ff365c42c8"), "Studentid" : "333", "FirstName" : "Erika", "LastName" : "Grayson", "No of courses" : "3", "Semester" : "Third" }

```