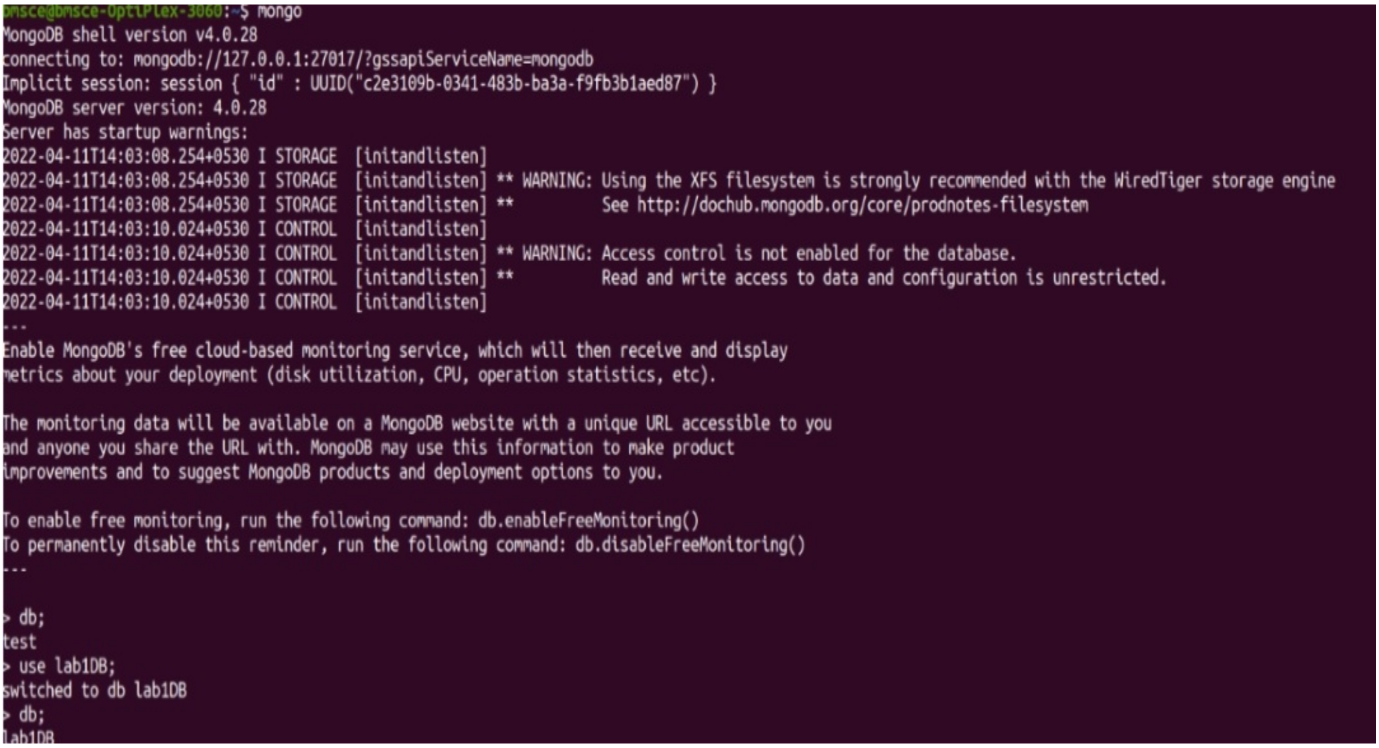
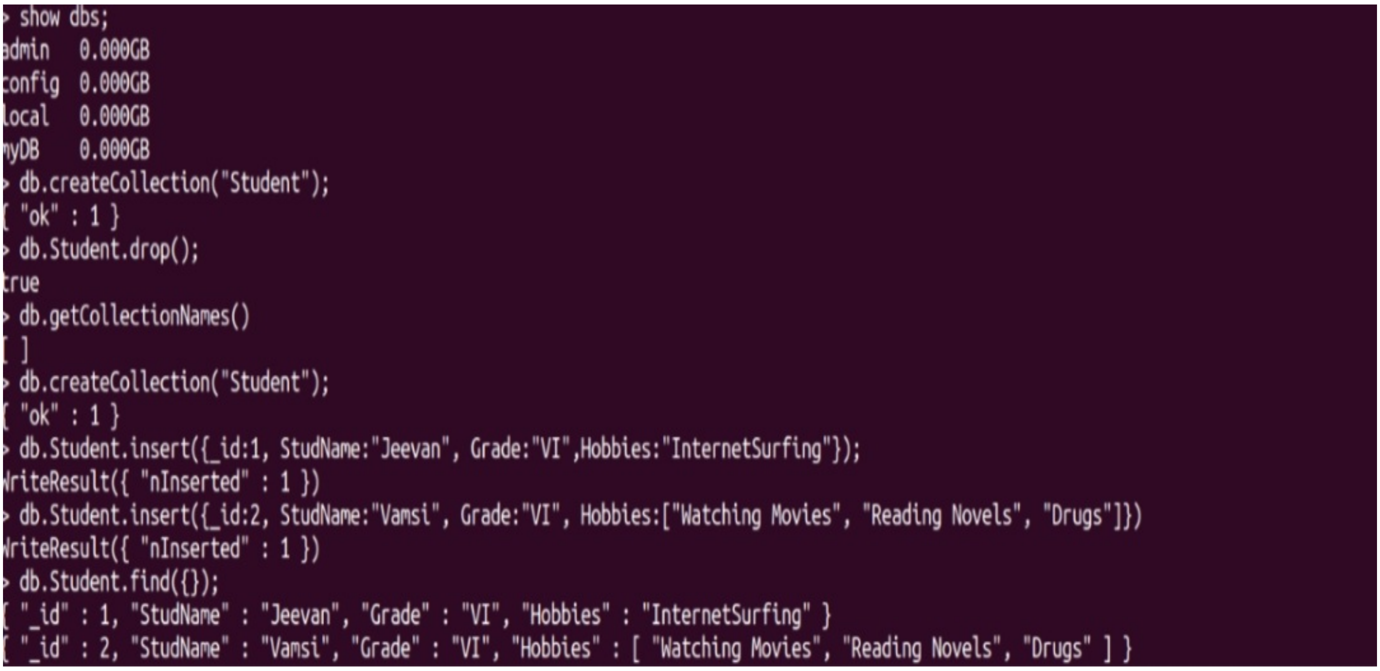
1BM19CS097
NEEHAL

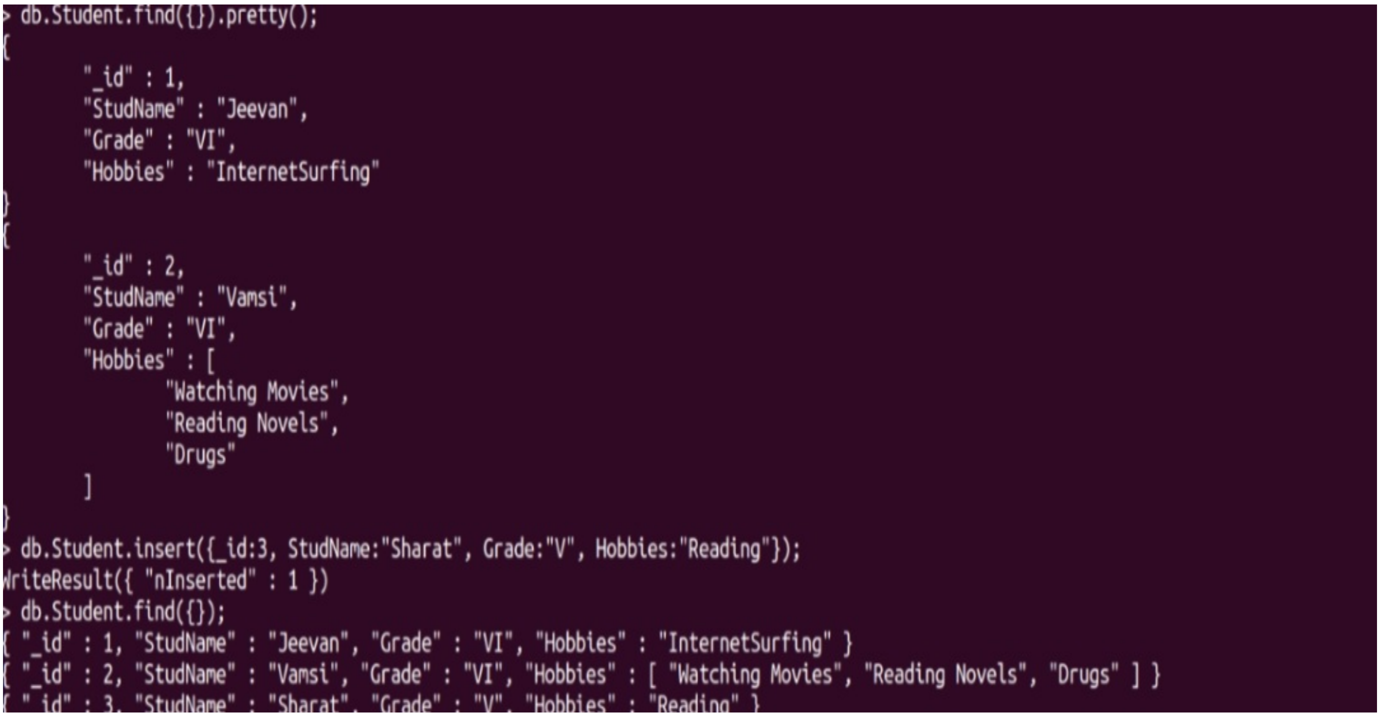
LAB-1



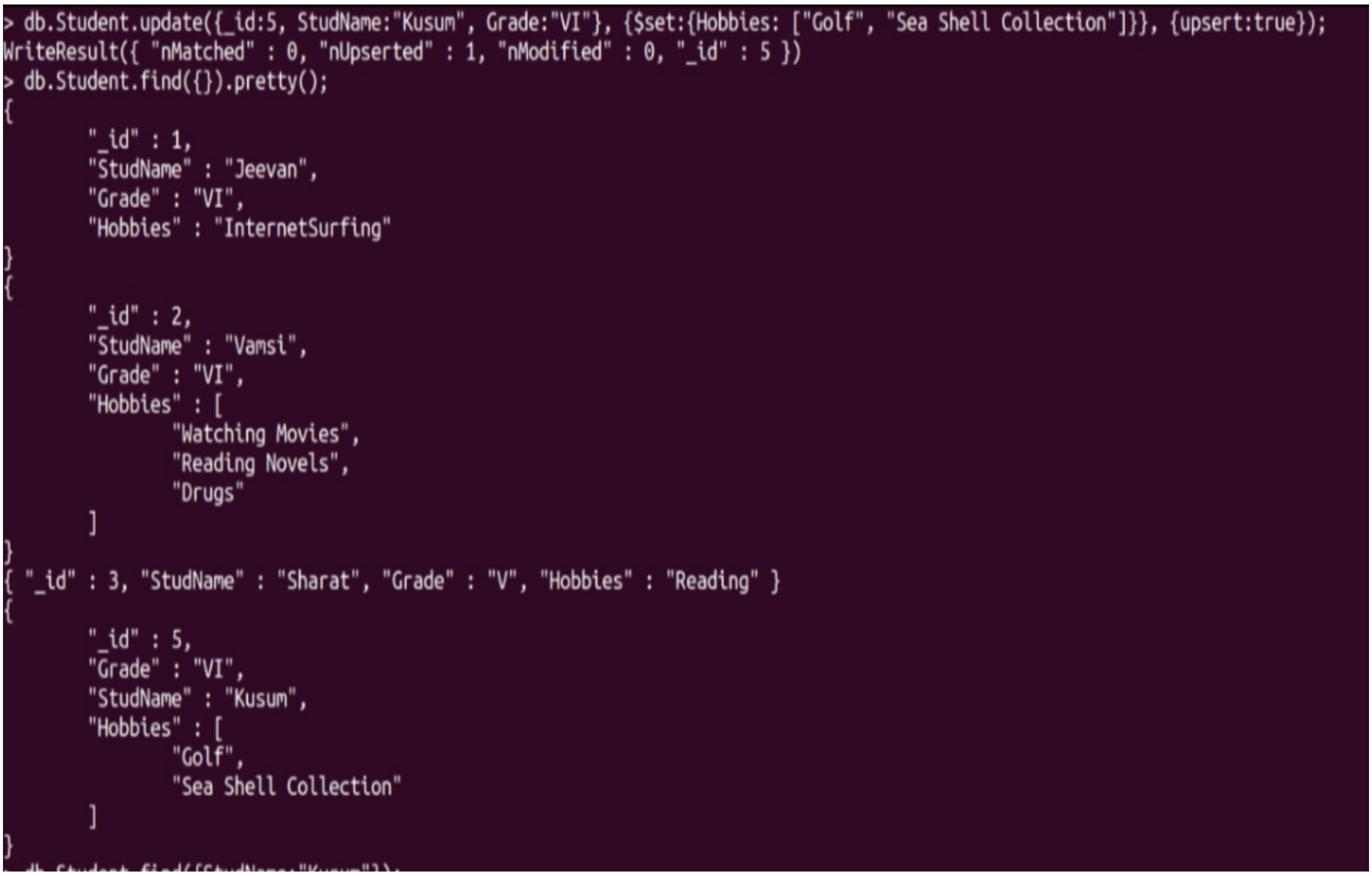
```
bmsce@bmsce-OptiPlex-3060:~$ mongo
MongoDB shell version v4.0.28
connecting to: mongodb://127.0.0.1:27017/?gssapiServiceName=mongodb
Implicit session: session { "id" : UUID("c2e3109b-0341-483b-ba3a-f9fb3b1aed87") }
MongoDB server version: 4.0.28
Server has startup warnings:
2022-04-11T14:03:08.254+0530 I STORAGE  [initandlisten]
2022-04-11T14:03:08.254+0530 I STORAGE  [initandlisten] ** WARNING: Using the XFS filesystem is strongly recommended with the WiredTiger storage engine
2022-04-11T14:03:08.254+0530 I STORAGE  [initandlisten] **          See http://dochub.mongodb.org/core/prodnotes-filesystem
2022-04-11T14:03:10.024+0530 I CONTROL  [initandlisten]
2022-04-11T14:03:10.024+0530 I CONTROL  [initandlisten] ** WARNING: Access control is not enabled for the database.
2022-04-11T14:03:10.024+0530 I CONTROL  [initandlisten] **          Read and write access to data and configuration is unrestricted.
2022-04-11T14:03:10.024+0530 I CONTROL  [initandlisten]
---
Enable MongoDB's free cloud-based monitoring service, which will then receive and display
metrics about your deployment (disk utilization, CPU, operation statistics, etc).

The monitoring data will be available on a MongoDB website with a unique URL accessible to you
and anyone you share the URL with. MongoDB may use this information to make product
improvements and to suggest MongoDB products and deployment options to you.

To enable free monitoring, run the following command: db.enableFreeMonitoring()
To permanently disable this reminder, run the following command: db.disableFreeMonitoring()
---

> db;
test
> use lab1DB;
switched to db lab1DB
> db;
lab1DB
```



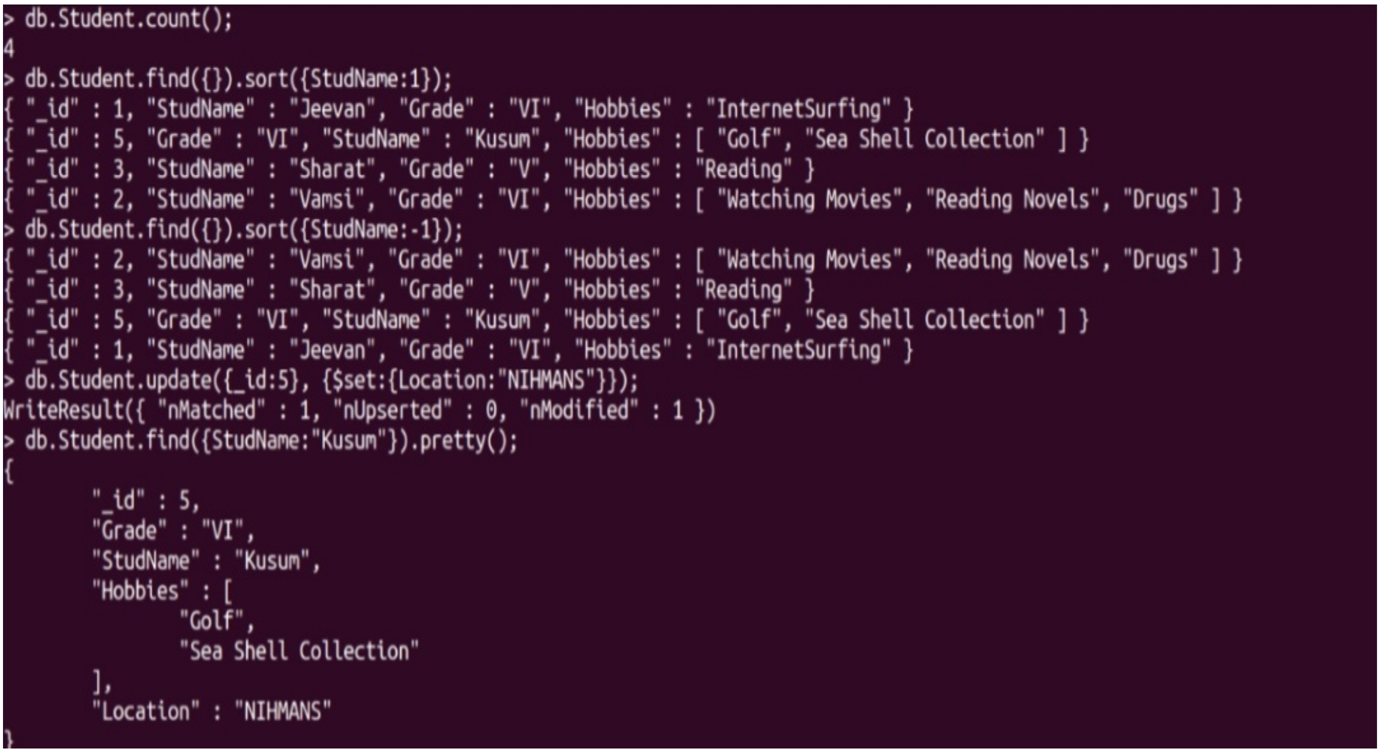
```
> show dbs;
admin   0.000GB
config  0.000GB
local   0.000GB
myDB    0.000GB
> db.createCollection("Student");
{ "ok" : 1 }
> db.Student.drop();
true
> db.getCollectionNames()
[ ]
> db.createCollection("Student");
{ "ok" : 1 }
> db.Student.insert({_id:1, StudName:"Jeevan", Grade:"VI",Hobbies:"InternetSurfing"});
WriteResult({ "nInserted" : 1 })
> db.Student.insert({_id:2, StudName:"Vamsi", Grade:"VI", Hobbies:["Watching Movies", "Reading Novels", "Drugs"]})
WriteResult({ "nInserted" : 1 })
> db.Student.find({});
{ "_id" : 1, "StudName" : "Jeevan", "Grade" : "VI", "Hobbies" : "InternetSurfing" }
{ "_id" : 2, "StudName" : "Vamsi", "Grade" : "VI", "Hobbies" : [ "Watching Movies", "Reading Novels", "Drugs" ] }
```



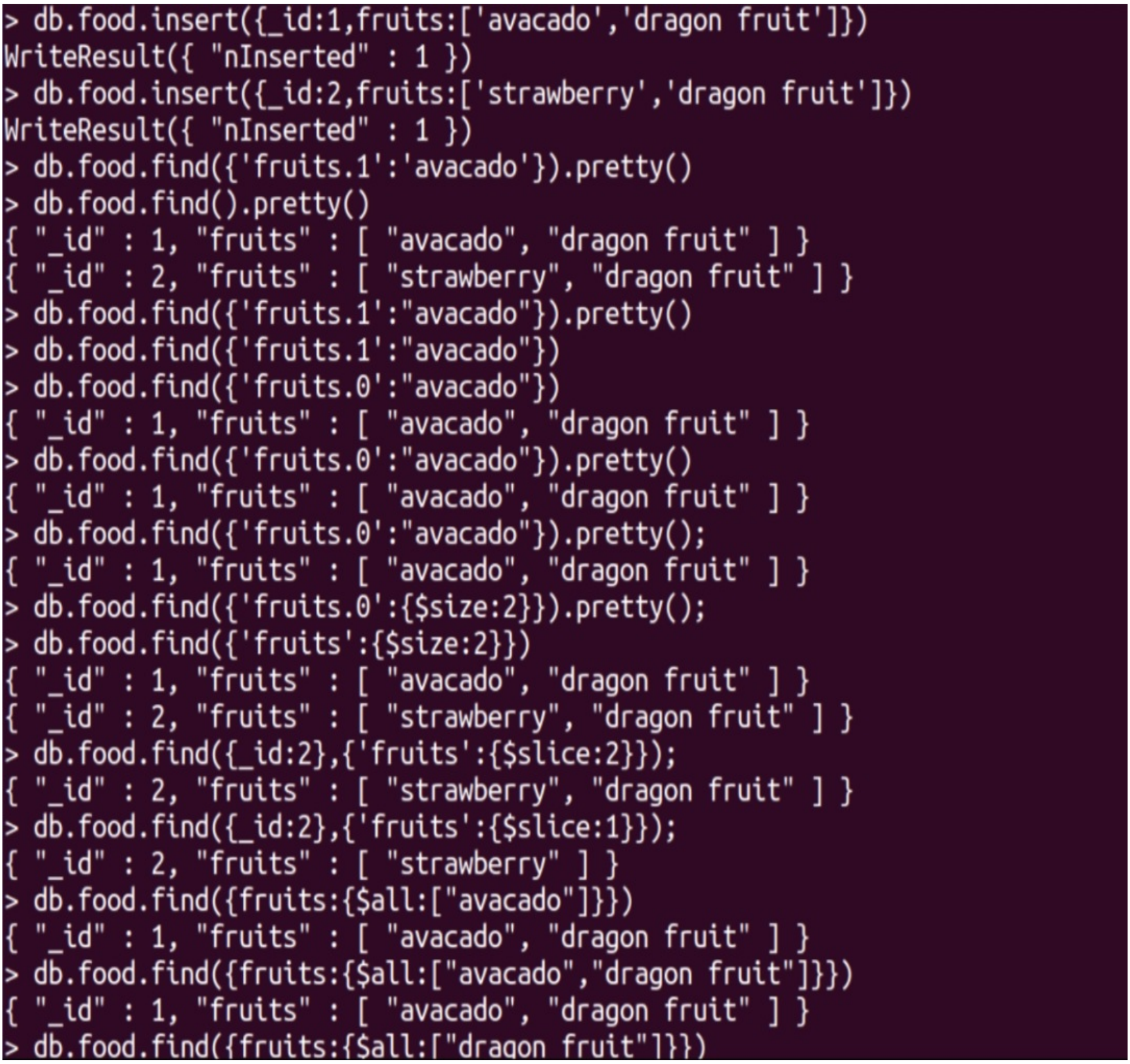
```
> db.Student.find({}).pretty();
{
        "_id" : 1,
        "StudName" : "Jeevan",
        "Grade" : "VI",
        "Hobbies" : "InternetSurfing"
}
{

        "_id" : 2,
        "StudName" : "Vamsi",
        "Grade" : "VI",
        "Hobbies" : [
                "Watching Movies",
                "Reading Novels",
                "Drugs"
        ]
}
> db.Student.insert({_id:3, StudName:"Sharat", Grade:"V", Hobbies:"Reading"});
WriteResult({ "nInserted" : 1 })
> db.Student.find({});
{ "_id" : 1, "StudName" : "Jeevan", "Grade" : "VI", "Hobbies" : "InternetSurfing" }
{ "_id" : 2, "StudName" : "Vamsi", "Grade" : "VI", "Hobbies" : [ "Watching Movies", "Reading Novels", "Drugs" ] }
{ "_id" : 3, "StudName" : "Sharat", "Grade" : "V", "Hobbies" : "Reading" }
```



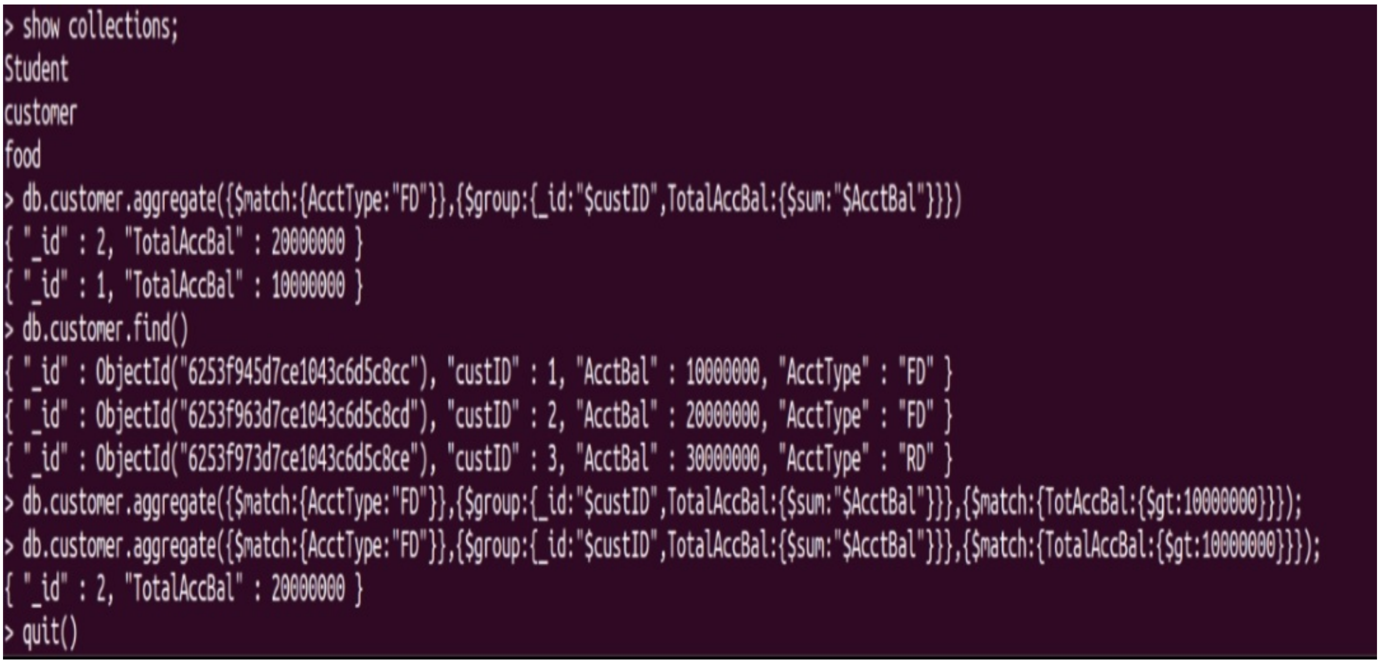
```
> db.Student.update({_id:5, StudName:"Kusum", Grade:"VI"}, {$set:{Hobbies: ["Golf", "Sea Shell Collection"]}}, {upsert:true});
WriteResult({ "nMatched" : 0, "nUpserted" : 1, "nModified" : 0, "_id" : 5 })
> db.Student.find({}).pretty();
{
        "_id" : 1,
        "StudName" : "Jeevan",
        "Grade" : "VI",
        "Hobbies" : "InternetSurfing"
}
{
        "_id" : 2,
        "StudName" : "Vamsi",
        "Grade" : "VI",
        "Hobbies" : [
                "Watching Movies",
                "Reading Novels",
                "Drugs"
        ]
}
{ "_id" : 3, "StudName" : "Sharat", "Grade" : "V", "Hobbies" : "Reading" }
{
        "_id" : 5,
        "Grade" : "VI",
        "StudName" : "Kusum",
        "Hobbies" : [
                "Golf",
                "Sea Shell Collection"
        ]
}
> db.Student.find({StudName:"Kusum"});
```



```
> db.Student.count();
4
> db.Student.find({}).sort({StudName:1});
{ "_id" : 1, "StudName" : "Jeevan", "Grade" : "VI", "Hobbies" : "InternetSurfing" }
{ "_id" : 5, "Grade" : "VI", "StudName" : "Kusum", "Hobbies" : [ "Golf", "Sea Shell Collection" ] }
{ "_id" : 3, "StudName" : "Sharat", "Grade" : "V", "Hobbies" : "Reading" }
{ "_id" : 2, "StudName" : "Vamsi", "Grade" : "VI", "Hobbies" : [ "Watching Movies", "Reading Novels", "Drugs" ] }
> db.Student.find({}).sort({StudName:-1});
{ "_id" : 2, "StudName" : "Vamsi", "Grade" : "VI", "Hobbies" : [ "Watching Movies", "Reading Novels", "Drugs" ] }
{ "_id" : 3, "StudName" : "Sharat", "Grade" : "V", "Hobbies" : "Reading" }
{ "_id" : 5, "Grade" : "VI", "StudName" : "Kusum", "Hobbies" : [ "Golf", "Sea Shell Collection" ] }
{ "_id" : 1, "StudName" : "Jeevan", "Grade" : "VI", "Hobbies" : "InternetSurfing" }
> db.Student.update({_id:5}, {$set:{Location:"NIHMANS"}});
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.Student.find({StudName:"Kusum"}).pretty();
{
        "_id" : 5,
        "Grade" : "VI",
        "StudName" : "Kusum",
        "Hobbies" : [
                "Golf",
                "Sea Shell Collection"
        ],
        "Location" : "NIHMANS"
}
```



```
> db.food.insert({_id:1,fruits:['avacado','dragon fruit']})
WriteResult({ "nInserted" : 1 })
> db.food.insert({_id:2,fruits:['strawberry','dragon fruit']})
WriteResult({ "nInserted" : 1 })
> db.food.find({'fruits.1':'avacado'}).pretty()
> db.food.find().pretty()
{ "_id" : 1, "fruits" : [ "avacado", "dragon fruit" ] }
{ "_id" : 2, "fruits" : [ "strawberry", "dragon fruit" ] }
> db.food.find({'fruits.1':"avacado"}).pretty()
> db.food.find({'fruits.1':"avacado"})
> db.food.find({'fruits.0':"avacado"})
{ "_id" : 1, "fruits" : [ "avacado", "dragon fruit" ] }
> db.food.find({'fruits.0':"avacado"}).pretty()
{ "_id" : 1, "fruits" : [ "avacado", "dragon fruit" ] }
> db.food.find({'fruits.0':"avacado"}).pretty();
{ "_id" : 1, "fruits" : [ "avacado", "dragon fruit" ] }
> db.food.find({'fruits.0':{$size:2}}).pretty();
> db.food.find({'fruits':{$size:2}})
{ "_id" : 1, "fruits" : [ "avacado", "dragon fruit" ] }
{ "_id" : 2, "fruits" : [ "strawberry", "dragon fruit" ] }
> db.food.find({_id:2},{'fruits':{$slice:2}});
{ "_id" : 2, "fruits" : [ "strawberry", "dragon fruit" ] }
> db.food.find({_id:2},{'fruits':{$slice:1}});
{ "_id" : 2, "fruits" : [ "strawberry" ] }
> db.food.find({fruits:{$all:["avacado"]}})
{ "_id" : 1, "fruits" : [ "avacado", "dragon fruit" ] }
> db.food.find({fruits:{$all:["avacado","dragon fruit"]}})
{ "_id" : 1, "fruits" : [ "avacado", "dragon fruit" ] }
> db.food.find({fruits:{$all:["dragon fruit"]}})
```



```
> show collections;
Student
customer
food
> db.customer.aggregate({$match:{AcctType:"FD"}},{$group:{_id:"$custID",TotalAccBal:{$sum:"$AcctBal"}}})
{ "_id" : 2, "TotalAccBal" : 20000000 }
{ "_id" : 1, "TotalAccBal" : 10000000 }
> db.customer.find()
{ "_id" : ObjectId("6253f945d7ce1043c6d5c8cc"), "custID" : 1, "AcctBal" : 10000000, "AcctType" : "FD" }
{ "_id" : ObjectId("6253f963d7ce1043c6d5c8cd"), "custID" : 2, "AcctBal" : 20000000, "AcctType" : "FD" }
{ "_id" : ObjectId("6253f973d7ce1043c6d5c8ce"), "custID" : 3, "AcctBal" : 30000000, "AcctType" : "RD" }
> db.customer.aggregate({$match:{AcctType:"FD"}},{$group:{_id:"$custID",TotalAccBal:{$sum:"$AcctBal"}}},{$match:{TotAccBal:{$gt:10000000}}});
> db.customer.aggregate({$match:{AcctType:"FD"}},{$group:{_id:"$custID",TotalAccBal:{$sum:"$AcctBal"}}},{$match:{TotalAccBal:{$gt:10000000}}});
{ "_id" : 2, "TotalAccBal" : 20000000 }
> quit()
```