Angel mary Joly
RollNo:23

ADVANCED DATABASE MANAGEMENT SYSTEM-LAB
CYCLE 3

1.Install the MongoDB Compass GUI and configure it.

2. Create a collection student consists of details like rollno, name, phoneno, marks, address, year of course etc

db.student.insertOne({_id:
{ "acknowledged" : true, "insertedId" : 30 }

3.Insert the details of the multiple students (atleast 5) in the form of documents in the student collection

> db.student.insertMany([{_id:20, name:"abhilash", phoneno:1245567899, marks:95, addr:"eklm", yoc:2020}, {_id:12, name:"anu", phoneno:1567892345, marks:91, addr:"thrissur", yoc:2022}, {_id:42, name:"dinu", phoneno:1908672345, marks:93, addr:"plkd", yoc:2020}, {_id:08, name:"asha", phoneno:1678934261, marks:92, addr:"idukki", yoc:2019}])
{ "acknowledged" : true, "insertedIds" : [20, 12, 42, 8] }

> db.student.find()

{ "_id" : 30, "name" : "sujith", "phoneno" : 1234567899, "marks" : 99, "addr" : "thrissur", "yoc" : 2020 }
{ "_id" : 20, "name" : "abhilash", "phoneno" : 1245567899, "marks" : 95, "addr" : "eklm", "yoc" : 2020 }
{ "_id" : 12, "name" : "anu", "phoneno" : 1567892345, "marks" : 91, "addr" : "thrissur", "yoc" : 2022 }
{ "_id" : 42, "name" : "dinu", "phoneno" : 1908672345, "marks" : 93, "addr" : "plkd", "yoc" : 2020 }
{ "_id" : 8, "name" : "asha", "phoneno" : 1678934261, "marks" : 92, "addr" : "idukki", "yoc" : 2019 }

4.Retrieve the fields rollno, name, phoneno, marks, city for all the documents in the collection student

 db.student.find({},{yoc:0})
{ "_id" : 30, "name" : "sujith", "phoneno" : 9876543212, "marks" : 99, "addr" : "thrissur" }

{ "_id" : 12, "name" : "anu", "phoneno" : 1567892345, "marks" : 91, "addr" : "thrissur" }
{ "_id" : 42, "name" : "dinu", "phoneno" : 1908672345, "marks" : 93, "addr" : "plkd" }
{ "_id" : 8, "name" : "asha", "phoneno" : 1678934261, "marks" : 92, "addr" : "idukki" }

5. Display the details of students who achieved a score more than 90 and are from 'Thrissur'.

```
db.student.find({$and: [{addr:"thrissur"}, {marks: {$gt:90}}]})
```
{ "_id" : 30, "name" : "sujith", "phoneno" : 1234567899, "marks" : 99, "addr" : "thrissur", "yoc" : 2020 }
{ "_id" : 12, "name" : "anu", "phoneno" : 1567892345, "marks" : 91, "addr" : "thrissur", "yoc" : 2022 }

6. Update the phone number of Sujith in the student collection. Retrieve the updated information

```
db.student.updateOne({_id:30}, {$set: {phoneno:9876543212} } )
```
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }

7. Update the year of course in all the documents in the student collection to 2021. Also retrieve the updated information.

```
db.student.updateMany({}, {$set: {yoc:2021} } )
```

{ "acknowledged" : true, "matchedCount" : 5, "modifiedCount" : 5 }

8. Delete the details of the student whose name is 'Abhilash' from the student collection

```
db.student.deleteMany({name: "abhilash"})
```
{ "acknowledged" : true, "deletedCount" : 1 }
> db.student.find()
{ "_id" : 30, "name" : "sujith", "phoneno" : 9876543212, "marks" : 99, "addr" : "thrissur", "yoc" : 2021 }
{ "_id" : 12, "name" : "anu", "phoneno" : 1567892345, "marks" : 91, "addr" : "thrissur", "yoc" : 2021 }

{ "_id" : 42, "name" : "dinu", "phoneno" : 1908672345, "marks" : 93, "addr" : "plkd", "yoc" : 2021 }
{ "_id" : 8, "name" : "asha", "phoneno" : 1678934261, "marks" : 92, "addr" : "idukki", "yoc" : 2021 }

10.Arrange the name of the students in ascending order along with all the columns.

db.student.find().sort({
{ "_id" : 12, "name" : "anu", "phoneno" : 1567892345, "marks" : 91, "addr" : "thrissur", "yoc" : 2021 }
{ "_id" : 8, "name" : "asha", "phoneno" : 1678934261, "marks" : 92, "addr" : "idukki", "yoc" : 2021 }
{ "_id" : 42, "name" : "dinu", "phoneno" : 1908672345, "marks" : 93, "addr" : "plkd", "yoc" : 2021 }
{ "_id" : 30, "name" : "sujith", "phoneno" : 9876543212, "marks" : 99, "addr" : "thrissur", "yoc" : 2021 }