

LAB QUESTION CYCLE -3

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

NoSQL code:

```
> show dbs
admin    0.000GB
config   0.000GB
local    0.000GB
mymongodb 0.000GB
> use StudentB6
switched to db StudentB6
> db.createCollection("student")
\\{ "ok" : 1 }
```

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

NoSQL CODE:

```
>
db.student.insertMany([{_id:101,name:"Appu",phoneno:9496867367,mark:45,address:"mooz hikkal",year:2012},{_id:102,name:"Ammu",phoneno:9496867367,mark:45,address:"mol",year:2012},{roll_id:103,name:"Anu",phoneno:9496867367,mark:48,address:"mh",year:2020},{roll_id:104,name:"midhu",phoneno:9496867367,mark:51,address:"mr",year:2020}])
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("61543b48b516465b01d989eb"),
    ObjectId("61543b48b516465b01d989ec"),
    ObjectId("61543b48b516465b01d989ed"),
    ObjectId("61543b48b516465b01d989ee")
  ]
}
```

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

NoSQL CODE:

```
> db.student.find( )
```

OUTPUT

```
{_id:101,name:"Appu",phoneno:9496867367,mark:45,address:"moozhikkal",year:2012}
{_id:102,name:"Ammu",phoneno:9496867367,mark:45,address:"mol",year:2012}
{_id:103,name:"Anu",phoneno:9496867367,mark:48,address:"mh",year:2020}
{_id:104,name:"sujith",phoneno:9496867385,mark:51,address:"rr",year:2020}

{_id:105,name:"ABHILASH",phoneno:9496867367,mark:51,address:"mr",year:2020}
```

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

NoSQL CODE:

```
> db.student.find({$and:[{mark:{$gt:90}},{address:" Thrissur "}]})
```

OUTPUT:

```
{ id : 104, "name" : "midhu", "phoneno" : 9496867367, "mark" : 95, "address" : " Thrissur ",
"year" : 2020 }
```

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

NoSQL CODE:

```
> db.student.updateOne({name:"Sujith"},{$set:{phoneno:96325874}})
```

```
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
db.student.updateOne({name:"Sujith"})
```

OUTPUT:

```
{_id:104,name:"sujith",phoneno: 96325874,mark:51,address:"rr",year:2020}
```

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

NoSQL CODE:

```
> db.student.updateMany({year:2020},{$set:{year:2021}})
```

```
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
```

```
> db.student.find()
```

OUTPUT

```
{_id:101,name:"Appu",phoneno:9496867367,mark:45,address:"moozhikkal",year:2021}  
{_id:102,name:"Ammu",phoneno:9496867367,mark:45,address:"mol",year:2021}  
{_id:103,name:"Anu",phoneno:9496867367,mark:48,address:"mh",year:2021}  
{_id:104,name:"sujith",phoneno:9496867385,mark:51,address:"rr",year:2021}  
  
{_id:105,name:"ABHILASH",phoneno:9496867367,mark:51,address:"mr",year:2021}
```

7. Delete the details of the student whose name is 'Abhilash' from the student collection
NoSQL CODE:

```
> db.student.deleteOne({ name:"Abhilash"})  
  
{ "acknowledged" : true, "deletedCount" : 1 }  
  
> db.student.find()
```

OUTPUT:

```
{_id:101,name:"Appu",phoneno:9496867367,mark:45,address:"moozhikkal",year:2021}  
{_id:102,name:"Ammu",phoneno:9496867367,mark:45,address:"mol",year:2021}  
{_id:103,name:"Anu",phoneno:9496867367,mark:48,address:"mh",year:2021,dept:"MCA"}  
{_id:104,name:"sujith",phoneno:9496867385,mark:51,address:"rr",year:2021, dept:"MCA"}
```

8. Retrieve the number of students per department from the student collection.
NoSQL CODE:

```
> db.student.find({dept:"MCA"}).count()
```

OUTPUT:

2

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

NoSQL CODE:

```
> db.student.find().sort({roll_id:-1})
```

OUTPUT

```
{_id:102,name:"Ammu",phoneno:9496867367,mark:45,address:"mol",year:2021}
```

```
{_id:103,name:"Anu",phoneno:9496867367,mark:48,address:"mh",year:2021,dept:"MCA"}
```

```
{_id:101,name:"Appu",phoneno:9496867367,mark:45,address:"moozhikkal",year:2021}
```

```
{_id:104,name:"sujith",phoneno:9496867385,mark:51,address:"rr",year:2021, dept:"MCA"}
```