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.

   Code:

   db.createCollection("Student")

   Output:

   { "ok" : 1 }

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

   Code:

   db.Student.insertOne({_id:101,Name:"Lee Min Ho",Phone_No:9876435271,Marks:100,Address:"Thrisshur",Year_Of_Course:2020})

   { "acknowledged" : true, "insertedId" : 101 }

   >db.Student.insertOne({_id:102,Name:"Jong Song Ki",Phone_No:9845627656,Marks:70,Address:"Kochi",Year_Of_Course:2019})

   { "acknowledged" : true, "insertedId" : 102 }

   >

   db.Student.insertOne({_id:103,Name:"Rahana",Phone_No:8764324657849,Marks:60, Address:"Kakkanad",Year_Of_Course:2019})

   { "acknowledged" : true, "insertedId" : 103 }

   > db.Student.insertOne({_id:104,Name:"Rose Mary",Phone_No:9874563154,Marks:50,Address:"Kashmir",Year_Of_Course:2021})

   { "acknowledged" : true, "insertedId" : 104 }

   >

   db.Student.insertOne({_id:105,Name:"Rahim",Phone_No:7654890162,Marks:50,Address:"Rajasthan",Year_Of_Course:2021})

   { "acknowledged" : true, "insertedId" : 105 }

db.Student.insertOne({_id:106,Name:"Abhilash",Phone_No:9874536251,Marks:100,Address:"Gujarat",Year_Of_Course:2021})

{ "acknowledged" : true, "insertedId" : 106 }

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

Code:

db.Student.find().pretty()

Output:

```
{
  "_id" : 101,
  "Name" : "Lee Min Ho",
  "Phone_No" : 9876435271,
  "Marks" : 100,
  "Address" : "Thrisshur",
  "Year_Of_Course" : 2020
}
{
  "_id" : 102,
  "Name" : "Jong Song Ki",
  "Phone_No" : 9845627656,
  "Marks" : 70,
  "Address" : "Kochi",
  "Year_Of_Course" : 2019
}
{
  "_id" : 103,
  "Name" : "Rahana",
  "Phone_No" : 8764324657849,
  "Marks" : 60,
  "Address" : "Kakkanad",
  "Year_Of_Course" : 2019
```

```
    }
    {
      "_id" : 104,
      "Name" : "Rose Mary",
      "Phone_No" : 9874563154,
      "Marks" : 50,
      "Address" : "Kashmir",
      "Year_Of_Course" : 2021
    }
    {
      "_id" : 105,
      "Name" : "Rahim",
      "Phone_No" : 7654890162,
      "Marks" : 50,
      "Address" : "Rajasthan",
      "Year_Of_Course" : 2021
    }
```

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

   Code:

   db.Student.find({$and:[{Marks:{$gt:90}},{Address:"Thrisshur"}]})

   { "_id" : 101, "Name" : "Lee Min Ho", "Phone_No" : 9876435271, "Marks" : 100, "Address" : "Thrisshur", "Year_Of_Course" : 2020 }

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

   Code:

   db.Student.updateOne({_id:105},{$set:{Phone_No:0987342871}})

   { "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.

   Code:

db.Student.updateMany({Year_Of_Course:2020},{$set:{Year_Of_Course:2021}})

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

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

Code:

db.Student.deleteOne({Name:"Abhilash"})

{ "acknowledged" : true, "deletedCount" : 1 }

9. Retrieve the number of students per department from the student collection.

Code:

db.Student.find().count()

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

Code:

db.Student.find().sort({Name:1})

{ "_id" : 102, "Name" : "Jong Song Ki", "Phone_No" : 9845627656, "Marks" : 70, "Address" : "Kochi", "Year_Of_Course" : 2019 }

{ "_id" : 101, "Name" : "Lee Min Ho", "Phone_No" : 9876435271, "Marks" : 100, "Address" : "Thrisshur", "Year_Of_Course" : 2021 }

{ "_id" : 103, "Name" : "Rahana", "Phone_No" : 8764324657849, "Marks" : 60, "Address" : "Kakkanad", "Year_Of_Course" : 2019 }

{ "_id" : 105, "Name" : "Rahim", "Phone_No" : 987342871, "Marks" : 50, "Address" : "Rajasthan", "Year_Of_Course" : 2021 }

{ "_id" : 104, "Name" : "Rose Mary", "Phone_No" : 9874563154, "Marks" : 50, "Address" : "Kashmir", "Year_Of_Course" : 2021 }