***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 }

1. 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 }

1. 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

}

1. 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 }

1. 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 }

1. 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 }

1. Delete the details of the student whose name is ‘Abhilash’ from the student collection

**Code:**

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

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

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

**Code:**

db.Student.find().count()

5

1. 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 }