

LAB CYCLE - 3

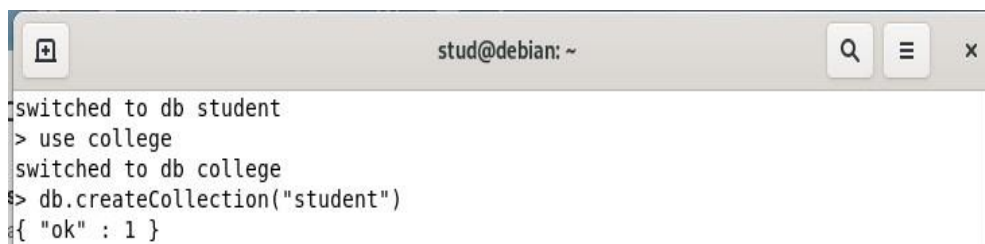
- 2) **Create a collection student consists of details like rollno, name, phoneno, marks, address, year of course etc**

use college

switched to db college

```
> db.createCollection("student")
```

```
{ "ok" : 1 }
```



The screenshot shows a terminal window titled 'stud@debian: ~'. The terminal contains the following text: 'switched to db student', '> use college', 'switched to db college', '\$> db.createCollection("student")', and '{ "ok" : 1 }'.

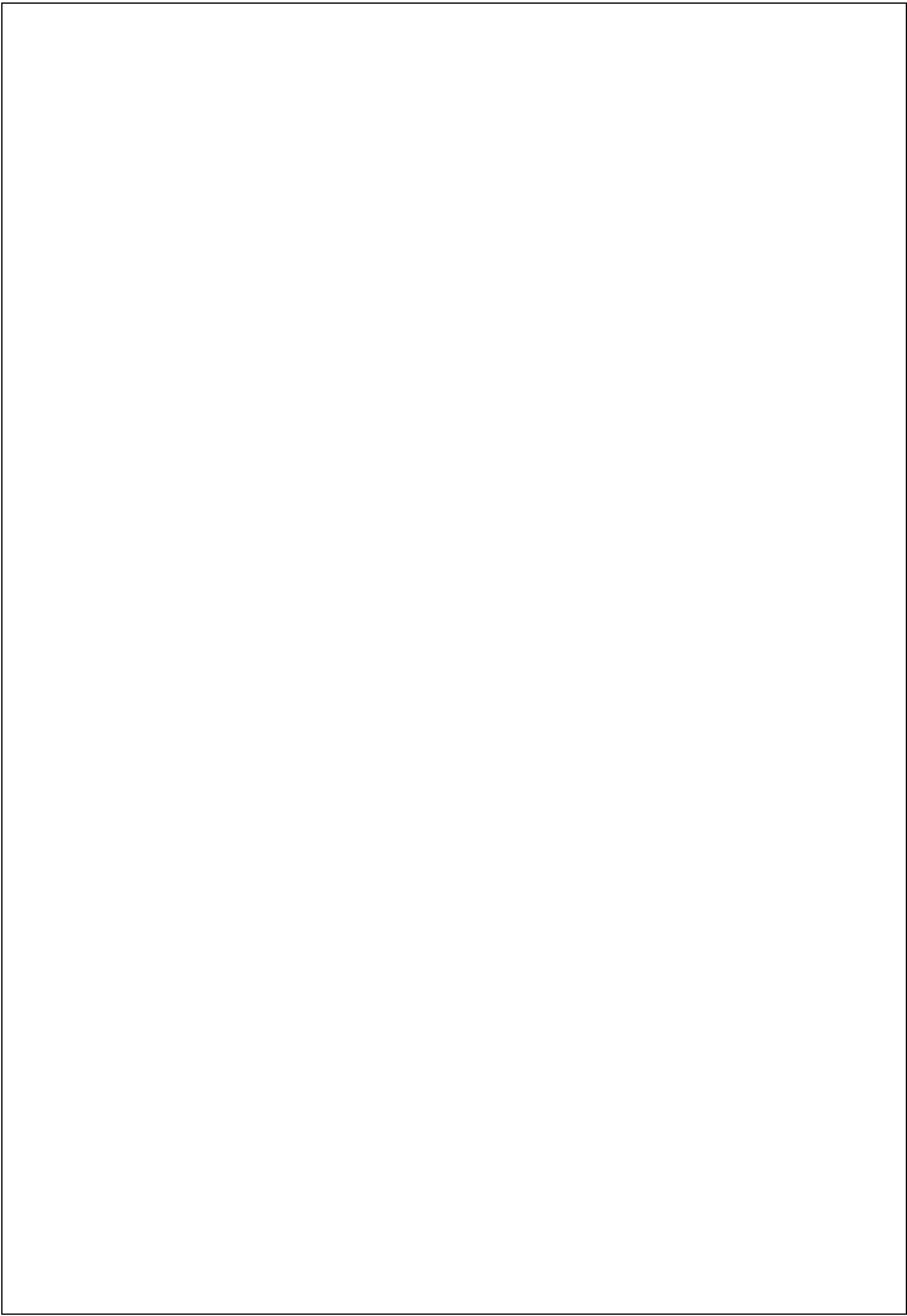
- 3) **Insert the details of the multiple students (atleast 5) in the form of documents in the student collection.**

```
db.student.insertOne({_id:101, name:"sujith", phoneno:123456, marks:90, address:"Thrissur",  
yearofcourse:2020})  
{ "acknowledged" : true, "insertedId" : 101 }  
> db.student.insertOne({_id:102, name:"Zeba", phoneno:789456, marks:95, address:"Thrissur",  
yearofcourse:2010})  
{ "acknowledged" : true, "insertedId" : 102 }  
> db.student.insertOne({_id:103, name:"Abhilash", phoneno:789456, marks:95, address:"Ernakulam",  
yearofcourse:2011})  
{ "acknowledged" : true, "insertedId" : 103 }  
> db.student.insertOne({_id:104, name:"Nikitha", phoneno:894566, marks:70, address:"Ernakulam",  
yearofcourse:2017})  
{ "acknowledged" : true, "insertedId" : 104 }  
> db.student.insertOne({_id:105, name:"Devi", phoneno:894526, marks:75, address:"Thrissur",  
yearofcourse:2019})  
{ "acknowledged" : true, "insertedId" : 105 }
```

```

> db.createCollection("student")
{ "ok" : 1 }
> db.student.insertOne({_id:101, name:"sujith", phoneno:123456, marks:90, address:"Thrissur", yearofcourse:2020})
{ "acknowledged" : true, "insertedId" : 101 }
> db.student.insertOne({_id:102, name:"Zeba", phoneno:789456, marks:95, address:"Thrissur", yearofcourse:2010})
{ "acknowledged" : true, "insertedId" : 102 }
> db.student.insertOne({_id:103, name:"Abhilash", phoneno:789456, marks:95, address:"Ernakulam", yearofcourse:2011})
{ "acknowledged" : true, "insertedId" : 103 }
> db.student.insertOne({_id:104, name:"Nikitha", phoneno:894566, marks:70, address:"Ernakulam", yearofcourse:2017})
{ "acknowledged" : true, "insertedId" : 104 }
> db.student.insertOne({_id:105, name:"Devi", phoneno:894526, marks:75, address:"Thrissur", yearofcourse:2019})
{ "acknowledged" : true, "insertedId" : 105 }
> db.student.find()
{ "_id" : 101, "name" : "sujith", "phoneno" : 123456, "marks" : 90, "address" : "Thrissur", "yearofcourse" : 2020 }
{ "_id" : 102, "name" : "Zeba", "phoneno" : 789456, "marks" : 95, "address" : "Thrissur", "yearofcourse" : 2010 }
{ "_id" : 103, "name" : "Abhilash", "phoneno" : 789456, "marks" : 95, "address" : "Ernakulam", "yearofcourse" : 2011 }
{ "_id" : 104, "name" : "Nikitha", "phoneno" : 894566, "marks" : 70, "address" : "Ernakulam", "yearofcourse" : 2017 }
{ "_id" : 105, "name" : "Devi", "phoneno" : 894526, "marks" : 75, "address" : "Thrissur", "yearofcourse" : 2019 }
~ db.student.findOne({_id:103, $set:{city:"Ernakulam", $department:"ec"}})

```



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

```
db.student.find({_id:{$in:[101,102,103,104,105]}} ,{department:0,yearofcourse:0})
```

```
> db.student.find({_id:{$in:[101,102,103,104,105]}} ,{department:0,yearofcourse:0})
{ "_id" : 101, "name" : "sujith", "phoneno" : 123456, "marks" : 90, "address" : "Thrissur", "city" : "thrissur" }
{ "_id" : 102, "name" : "Zeba", "phoneno" : 789456, "marks" : 95, "address" : "Thrissur", "city" : "Thrissur" }
{ "_id" : 103, "name" : "Abhilash", "phoneno" : 789456, "marks" : 95, "address" : "Ernakulam", "city" : "Ernamkulam" }
{ "_id" : 104, "name" : "Nikitha", "phoneno" : 894566, "marks" : 70, "address" : "Ernakulam", "city" : "Vyttila" }
{ "_id" : 105, "name" : "Devi", "phoneno" : 894526, "marks" : 75, "address" : "Thrissur", "city" : "Thrissur" }
```

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

```
db.student.find({$and:[{city:"thrissur"},{mark:{$gt:90}}]})
```

switched to db naa38

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

```
{ "_id" : 102, "name" : "Zeba", "phoneno" : 789456, "marks" : 95, "address" : "Thrissur", "yearofcourse" : 2010, "city" : "Thrissur", "department" : "medicine" }
```

```
>
```

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

```
db.student.insertOne({_id:55,name:"sujith",phno:98765432,mark:96,address:"redvilla",city:"tvm",ycourse:2020})
```

```
{ "acknowledged" : true, "insertedId" : 55 }
```

```
db.student.insertOne({_id:56,name:"abhilash",phno:98765832,mark:87,address:"whitevilla",city:"thrissur",ycourse:2020})
```

```
{ "acknowledged" : true, "insertedId" : 56 }
```

```
db.student.updateOne({_id:55},{ $set:{phno:74653879}})
```

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

```

> db.student.updateOne({_id:55},{ $set:{phno:74653879}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.student.find()
{ "_id" : 50, "name" : "harsh", "phno" : 78653429, "mark" : 85, "address" : "rosevilla", "city" : "ekm", "ycourse" : 2020 }
{ "_id" : 51, "name" : "dona", "phno" : 73653429, "mark" : 95, "address" : "dragonvilla", "city" : "kochi", "ycourse" : 2019 }
{ "_id" : 52, "name" : "gayu", "phno" : 73643429, "mark" : 86, "address" : "heavenvilla", "city" : "tvm", "ycourse" : 2020 }
{ "_id" : 53, "name" : "abelu", "phno" : 78452698, "mark" : 90, "address" : "silentvilla", "city" : "bangalore", "ycourse" : 2020 }
{ "_id" : 54, "name" : "ebin", "phno" : 87653421, "mark" : 95, "address" : "peacevilla", "city" : "thrissur", "ycourse" : 2019 }
{ "_id" : 55, "name" : "sujith", "phno" : 74653879, "mark" : 96, "address" : "redvilla", "city" : "tvm", "ycourse" : 2020 }
{ "_id" : 56, "name" : "abhilash", "phno" : 98765832, "mark" : 87, "address" : "whitevilla", "city" : "thrissur", "ycourse" : 2020 }
>

```

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

```

db.student.updateOne({_id:50},{ $set:{ycourse:2021}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.student.updateOne({_id:51},{ $set:{ycourse:2021}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.student.updateOne({_id:52},{ $set:{ycourse:2021}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.student.updateOne({_id:53},{ $set:{ycourse:2021}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.student.updateOne({_id:54},{ $set:{ycourse:2021}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.student.updateOne({_id:55},{ $set:{ycourse:2021}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.student.updateOne({_id:56},{ $set:{ycourse:2021}})
{ "acknowledged" : true, "matchedCount" : 1, "modifiedCount" : 1 }
> db.student.find()
{ "_id" : 50, "name" : "harsh", "phno" : 78653429, "mark" : 85, "address" : "rosevilla", "city" : "ekm", "ycourse" : 2021 }
{ "_id" : 51, "name" : "dona", "phno" : 73653429, "mark" : 95, "address" : "dragonvilla", "city" : "kochi", "ycourse" : 2021 }

```

```
{ "_id" : 52, "name" : "gayu", "phno" : 73643429, "mark" : 86, "address" : "heavenvilla",
"city" : "tvm", "ycourse" : 2021 }

{ "_id" : 53, "name" : "abelu", "phno" : 78452698, "mark" : 90, "address" : "silentvilla",
"city" : "bangalore", "ycourse" : 2021 }

{ "_id" : 54, "name" : "ebin", "phno" : 87653421, "mark" : 95, "address" : "peacevilla", "city" :
"thrissur", "ycourse" : 2021 }

{ "_id" : 55, "name" : "sujith", "phno" : 74653879, "mark" : 96, "address" : "redvilla", "city" :
"tvm", "ycourse" : 2021 }

{ "_id" : 56, "name" : "abhilash", "phno" : 98765832, "mark" : 87, "address" : "whitevilla",
"city" : "thrissur", "ycourse" : 2021 }
```

>

```
> db.student.find()
{ "_id" : 50, "name" : "harsh", "phno" : 78653429, "mark" : 85, "address" : "rosevilla", "city" : "ekm", "ycourse" : 2021 }
{ "_id" : 51, "name" : "dona", "phno" : 73653429, "mark" : 95, "address" : "dragonvilla", "city" : "kochi", "ycourse" : 2021 }
{ "_id" : 52, "name" : "gayu", "phno" : 73643429, "mark" : 86, "address" : "heavenvilla", "city" : "tvm", "ycourse" : 2021 }
{ "_id" : 53, "name" : "abelu", "phno" : 78452698, "mark" : 90, "address" : "silentvilla", "city" : "bangalore", "ycourse" : 2021 }
{ "_id" : 54, "name" : "ebin", "phno" : 87653421, "mark" : 95, "address" : "peacevilla", "city" : "thrissur", "ycourse" : 2021 }
{ "_id" : 55, "name" : "sujith", "phno" : 74653879, "mark" : 96, "address" : "redvilla", "city" : "tvm", "ycourse" : 2021 }
{ "_id" : 56, "name" : "abhilash", "phno" : 98765832, "mark" : 87, "address" : "whitevilla", "city" : "thrissur", "ycourse" : 2021 }
>
```

8)Delete the details of the student whose name is ‘Abhilash’ from the student collection

```
db.student.deleteOne({name:"abhilash"})
```

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

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

```
{ "_id" : 50, "name" : "harsh", "phno" : 78653429, "mark" : 85, "address" : "rosevilla", "city" :
"ekm", "ycourse" : 2021 }

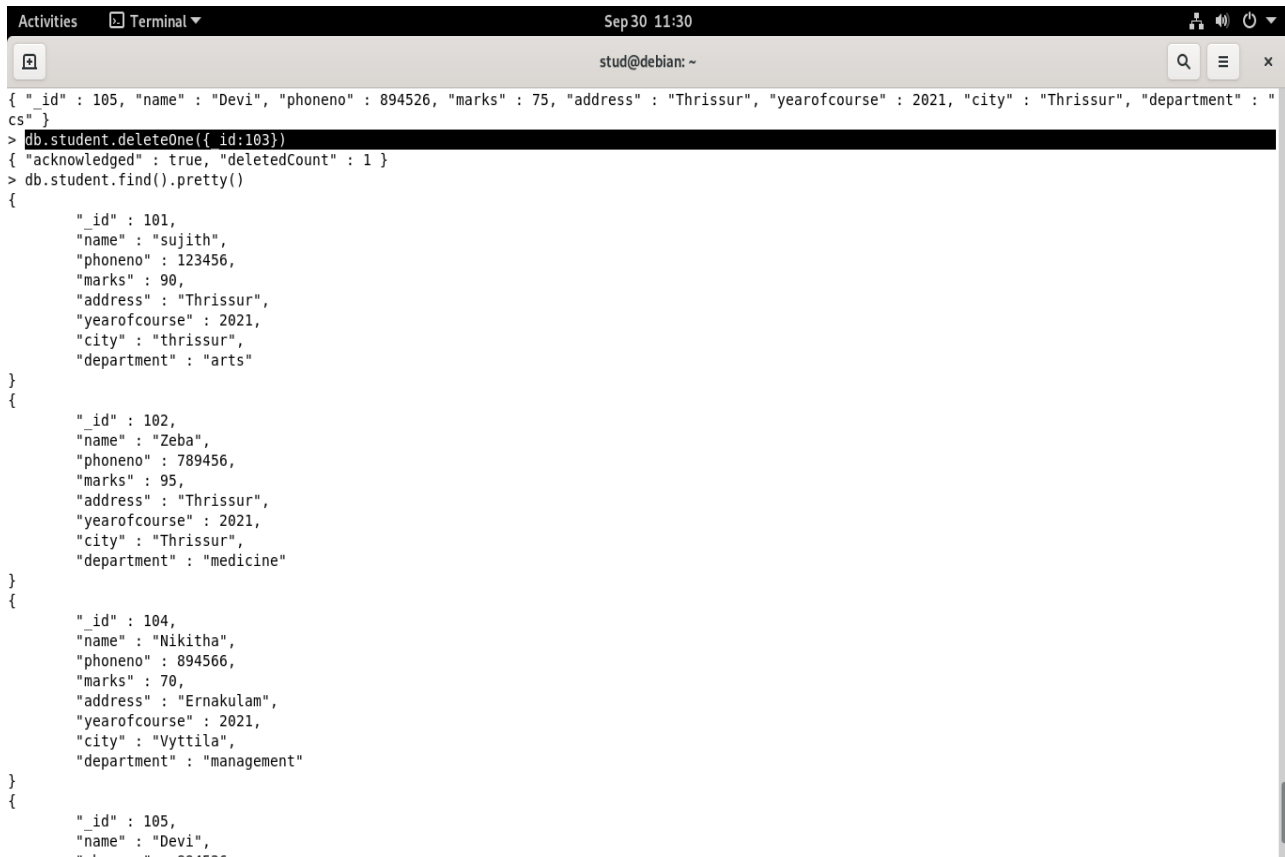
{ "_id" : 51, "name" : "dona", "phno" : 73653429, "mark" : 95, "address" : "dragonvilla",
"city" : "kochi", "ycourse" : 2021 }

{ "_id" : 52, "name" : "gayu", "phno" : 73643429, "mark" : 86, "address" : "heavenvilla",
"city" : "tvm", "ycourse" : 2021 }

{ "_id" : 53, "name" : "abelu", "phno" : 78452698, "mark" : 90, "address" : "silentvilla",
"city" : "bangalore", "ycourse" : 2021 }

{ "_id" : 54, "name" : "ebin", "phno" : 87653421, "mark" : 95, "address" : "peacevilla", "city" :
"thrissur", "ycourse" : 2021 }
```

```
{ "_id" : 55, "name" : "sujith", "phno" : 74653879, "mark" : 96, "address" : "redvilla", "city" : "tvm", "ycourse" : 2021 }
```



```
Activities Terminal Sep 30 11:30 stud@debian: ~
{ "_id" : 105, "name" : "Devi", "phoneno" : 894526, "marks" : 75, "address" : "Thrissur", "yearofcourse" : 2021, "city" : "Thrissur", "department" : "cs" }
> db.student.deleteOne({ id:103})
{ "acknowledged" : true, "deletedCount" : 1 }
> db.student.find().pretty()
{
  "_id" : 101,
  "name" : "sujith",
  "phoneno" : 123456,
  "marks" : 90,
  "address" : "Thrissur",
  "yearofcourse" : 2021,
  "city" : "thrissur",
  "department" : "arts"
}
{
  "_id" : 102,
  "name" : "Zeba",
  "phoneno" : 789456,
  "marks" : 95,
  "address" : "Thrissur",
  "yearofcourse" : 2021,
  "city" : "Thrissur",
  "department" : "medicine"
}
{
  "_id" : 104,
  "name" : "Nikitha",
  "phoneno" : 894566,
  "marks" : 70,
  "address" : "Ernakulam",
  "yearofcourse" : 2021,
  "city" : "Vyttila",
  "department" : "management"
}
{
  "_id" : 105,
  "name" : "Devi",
  "phoneno" : 894526
```

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

```
db.student.find().count()
```

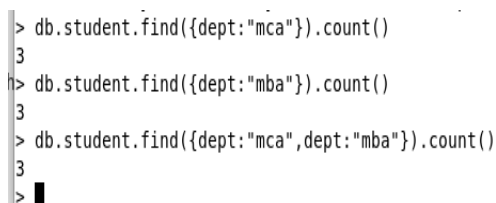
```
6
```

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

```
3
```

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

```
3
```



```
> db.student.find({dept:"mca"}).count()
3
> db.student.find({dept:"mba"}).count()
3
> db.student.find({dept:"mca",dept:"mba"}).count()
3
>
```


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

```
db.student.find().sort({name:1})
```

```
{ "_id" : 53, "name" : "abelu", "phno" : 78452698, "mark" : 90, "address" : "silentvilla",  
"city" : "bangalore", "ycourse" : 2021 }
```

```
{ "_id" : 51, "name" : "dona", "phno" : 73653429, "mark" : 95, "address" : "dragonvilla",  
"city" : "kochi", "ycourse" : 2021 }
```

```
{ "_id" : 54, "name" : "ebin", "phno" : 87653421, "mark" : 95, "address" : "peacevilla", "city"  
: "thrissur", "ycourse" : 2021 }
```

```
{ "_id" : 52, "name" : "gayu", "phno" : 73643429, "mark" : 86, "address" : "heavenvilla",  
"city" : "tvm", "ycourse" : 2021 }
```

```
{ "_id" : 50, "name" : "harsh", "phno" : 78653429, "mark" : 85, "address" : "rosevilla", "city"  
: "ekm", "ycourse" : 2021 }
```

```
{ "_id" : 55, "name" : "sujith", "phno" : 74653879, "mark" : 96, "address" : "redvilla", "city" : "tvm", "ycourse" : 2021 }
```

```
> db.student.find().sort({name:1})
{ "_id" : 53, "name" : "abelu", "phno" : 78452698, "mark" : 90, "address" : "sil  
entvilla", "city" : "bangalore", "ycourse" : 2021 }
{ "_id" : 51, "name" : "dona", "phno" : 73653429, "mark" : 95, "address" : "drag  
onvilla", "city" : "kochi", "ycourse" : 2021 }
{ "_id" : 54, "name" : "ebin", "phno" : 87653421, "mark" : 95, "address" : "peac  
evilla", "city" : "thrissur", "ycourse" : 2021 }
{ "_id" : 52, "name" : "gayu", "phno" : 73643429, "mark" : 86, "address" : "heav  
envilla", "city" : "tvm", "ycourse" : 2021 }
{ "_id" : 50, "name" : "harsh", "phno" : 78653429, "mark" : 85, "address" : "ros  
evilla", "city" : "ekm", "ycourse" : 2021 }
{ "_id" : 55, "name" : "sujith", "phno" : 74653879, "mark" : 96, "address" : "re  
dvilla", "city" : "tvm", "ycourse" : 2021 }
> █
```

11. Rename city as town and add the detail of address consists of apartment no, street name and PIN.

MongoDB Enterprise > db.student.updateOne({_id:50},{ \$set:{town:"404 Max sunflower apartment pin-680066"}})

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

MongoDB Enterprise > db.student.updateOne({_id:51},{ \$set:{town:"303 Nandeeswara nilaya apartment pin-680023"}})

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

MongoDB Enterprise > db.student.updateOne({_id:52},{ \$set:{town:"401 B prestiage apartment pin-687755"}})

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

MongoDB Enterprise > db.student.updateOne({_id:53},{ \$set:{town:"111 sky line apartment pin-687711"}})

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

MongoDB Enterprise > db.student.updateOne({_id:54},{ \$set:{town:"101 confident apartment pin-687700"}})

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

```
MongoDB Enterprise > db.student.find().pretty()
{
  "_id" : 50,
  "name" : "harsh",
  "phno" : 78653429,
  "mark" : 85,
  "address" : "rosevilla",
  "ycourse" : 2020,
  "town" : "404 Max sunflower apartment pin-680066"
}
{
  "_id" : 51,
  "name" : "dona",
  "phno" : 73653429,
  "mark" : 95,
  "address" : "dragonvilla",
  "ycourse" : 2019,
  "town" : "303 Nandeeswara nilaya apartment pin-680023"
}
{
  "_id" : 52,
  "name" : "gayu",
  "phno" : 73643429,
  "mark" : 86,
  "address" : "heavenvilla",
  "ycourse" : 2020,
  "town" : "401 B prestiage apartment pin-687755"
}
{
  "_id" : 53,
  "name" : "abelu",
  "phno" : 78452698,
  "mark" : 90,
  "address" : "silentvilla ",
  "ycourse" : 2020,
  "town" : "111 sky line apartment pin-687711"
}
{
  "_id" : 54,
  "name" : "ebin",
  "phno" : 87653421,
  "mark" : 95,
  "address" : "pea cevilla",
  "ycourse" : 2019,
  "town" : "101 confident apartment pin-687700"
}
```

12. Display the contact address of 'Abhilash'

```
db.student.find({name:{ $eq:"abhilash"} }).pretty()
```

```
MongoDB Enterprise > db.student.find({name:{ $eq:"abhilash"} }).pretty()
{
  "_id" : 56,
  "name" : "abhilash",
  "phno" : 98765832,
  "mark" : 87,
  "address" : "whitevilla",
  "city" : "thrissur",
  "ycourse" : 2020
}
MongoDB Enterprise >
```