EXPERIMENT NO.1

AIM:

1. Create a database (Eg : MyCev)
2. Create a collection (Eg: db_mca)
3. Create a collection (Eg: db_cs)
4. Insert 10 data to the collection
5. List the first 5 data from the collection (limit)
6. List the entire data except first 2 data (skip)
7. Sort the data by choosing any field in the collection
8. Delete data from the collection
9. Drop the collection (db_cs)
10. Drop Database

RESULT:

1)Create a database (Eg : MyCev)

```
test> use MyCev
switched to db MyCev
MyCev> show dbs
admin          41 kB
config        111 kB
local        98.3 kB
samplelogin    41 kB
test           41 kB
MyCev>
```

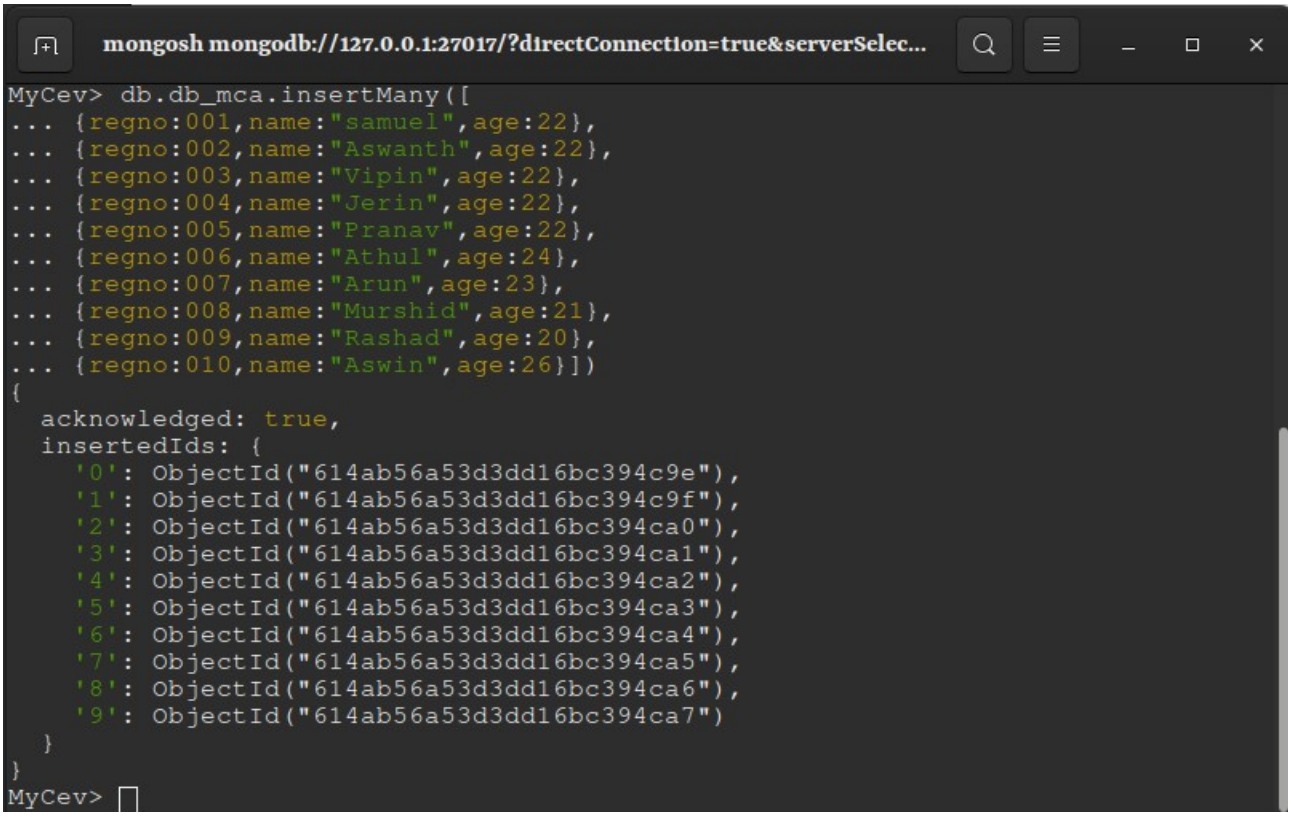
2)Create a collection (Eg: db_mca)

```
MyCev> db.createCollection("db_mca")
{ ok: 1 }
MyCev>
```

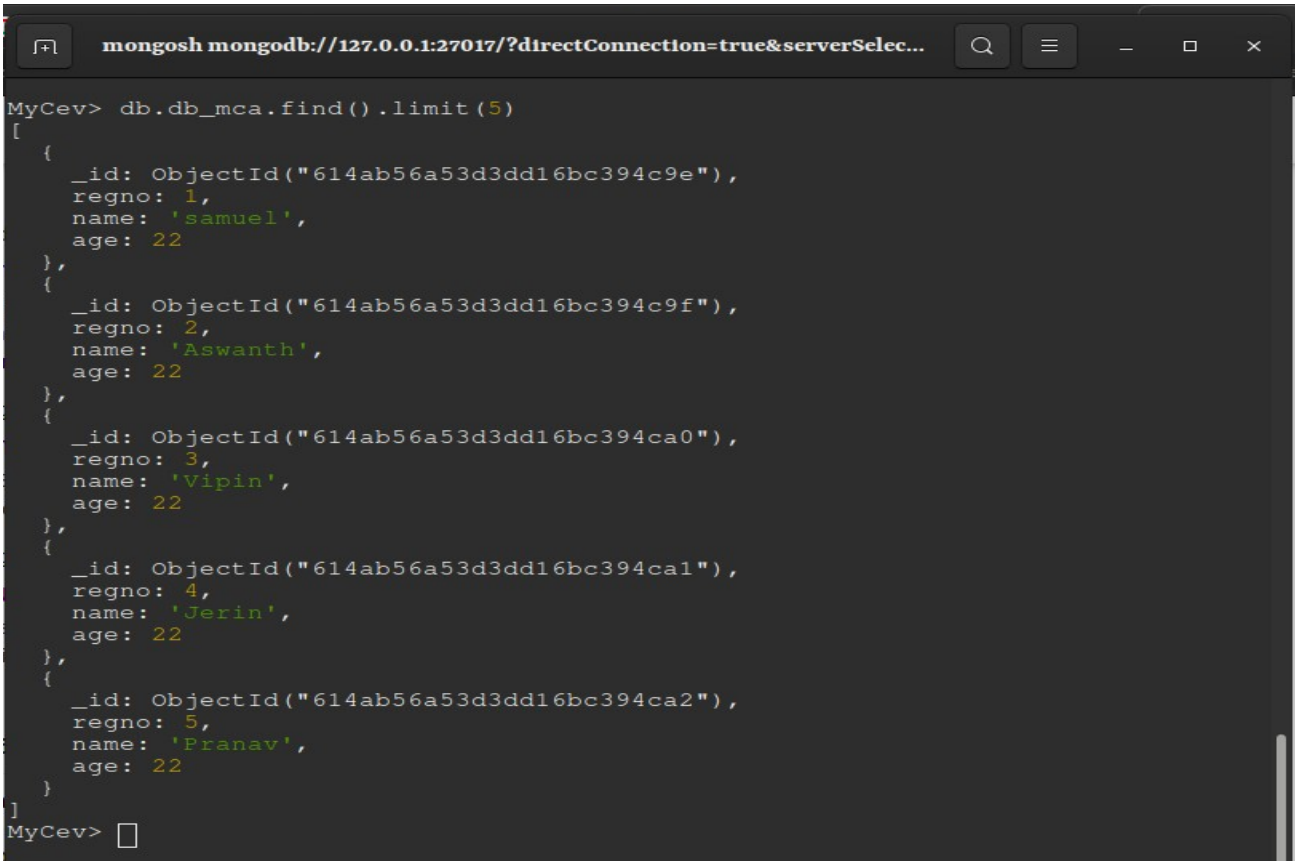
3)Create a collection (Eg: db_cs)

```
MyCev> db.createCollection("db_cs")
{ ok: 1 }
MyCev>
```

4) Insert 10 data to the collection



5) List the first 5 data from the collection (limit)



6) List the entire data except first 2 data (skip)

```
MyCev> db.db_mca.aggregate([{$skip:2}])
[
  {
    _id: ObjectId("614ab56a53d3dd16bc394ca0"),
    regno: 3,
    name: 'Vipin',
    age: 22
  },
  {
    _id: ObjectId("614ab56a53d3dd16bc394ca1"),
    regno: 4,
    name: 'Jerin',
    age: 22
  },
  {
    _id: ObjectId("614ab56a53d3dd16bc394ca2"),
    regno: 5,
    name: 'Pranav',
    age: 22
  },
  {
    _id: ObjectId("614ab56a53d3dd16bc394ca3"),
    regno: 6,
    name: 'Athul',
    age: 24
  },
  {
    _id: ObjectId("614ab56a53d3dd16bc394ca4"),
    regno: 7,
    name: 'Arun',
    age: 23
  },
  {
    _id: ObjectId("614ab56a53d3dd16bc394ca5"),
    regno: 8,
    name: 'Murshid',
    age: 21
  },
  {
    _id: ObjectId("614ab56a53d3dd16bc394ca6"),
    regno: 9,
    name: 'Rashad',
    age: 20
  },
  {
    _id: ObjectId("614ab56a53d3dd16bc394ca7"),
    regno: 8,
    name: 'Aswin',
    age: 26
  }
]
MyCev>
```

7) Sort the data by choosing any field in the collection

```
MyCev> db.db_mca.find().sort({"name":1})
[
  {
    _id: ObjectId("614ab56a53d3dd16bc394ca4"),
    regno: 7,
    name: 'Arun',
    age: 23
  },
  {
    _id: ObjectId("614ab56a53d3dd16bc394c9f"),
    regno: 2,
    name: 'Aswanth',
    age: 22
  },
  {
    _id: ObjectId("614ab56a53d3dd16bc394ca7"),
    regno: 8,
    name: 'Aswin',
    age: 26
  },
  {
    _id: ObjectId("614ab56a53d3dd16bc394ca3"),
    regno: 6,
    name: 'Athul',
    age: 24
  },
  {
    _id: ObjectId("614ab56a53d3dd16bc394ca1"),
    regno: 4,
    name: 'Jerin',
    age: 22
  },
```

```
{
  _id: ObjectId("614ab56a53d3dd16bc394ca5"),
  regno: 8,
  name: 'Murshid',
  age: 21
},
{
  _id: ObjectId("614ab56a53d3dd16bc394ca2"),
  regno: 5,
  name: 'Pranav',
  age: 22
},
{
  _id: ObjectId("614ab56a53d3dd16bc394ca6"),
  regno: 9,
  name: 'Rashad',
  age: 20
},
{
  _id: ObjectId("614ab56a53d3dd16bc394ca0"),
  regno: 3,
  name: 'Vipin',
  age: 22
},
{
  _id: ObjectId("614ab56a53d3dd16bc394c9e"),
  regno: 1,
  name: 'samuel',
  age: 22
}

yCev>
```

8) Delete data from the collection

```
MyCev> db.db_mca.deleteOne({name:"samuel"})
{ acknowledged: true, deletedCount: 1 }
MyCev>
```

9) Drop the collection (db_cs)

```
MyCev> db.db_cs.drop()
true
MyCev>
```

10) Drop Database

```
MyCev> db.dropDatabase()
{ ok: 1, dropped: 'MyCev' }
MyCev>
```

EXPERIMENT NO.2

AIM:

1) Create a database Myclass
2) Create a collection named “db_students”
   -> Should contain this fields : { student_name, student_rollno, mark[subject, mark] }
   Nb: Mark should be stored as array
3) Insert details of 10 students in a class
4) List the entire students in the class
5) Update mark of any students in the collection “db_students”
6) Delete the data of first student in the collection

RESULT:

1) Create a database Myclass

```
MyCev> use Myclass
switched to db Myclass
Myclass>
```

2) Create a collection named “db_students”

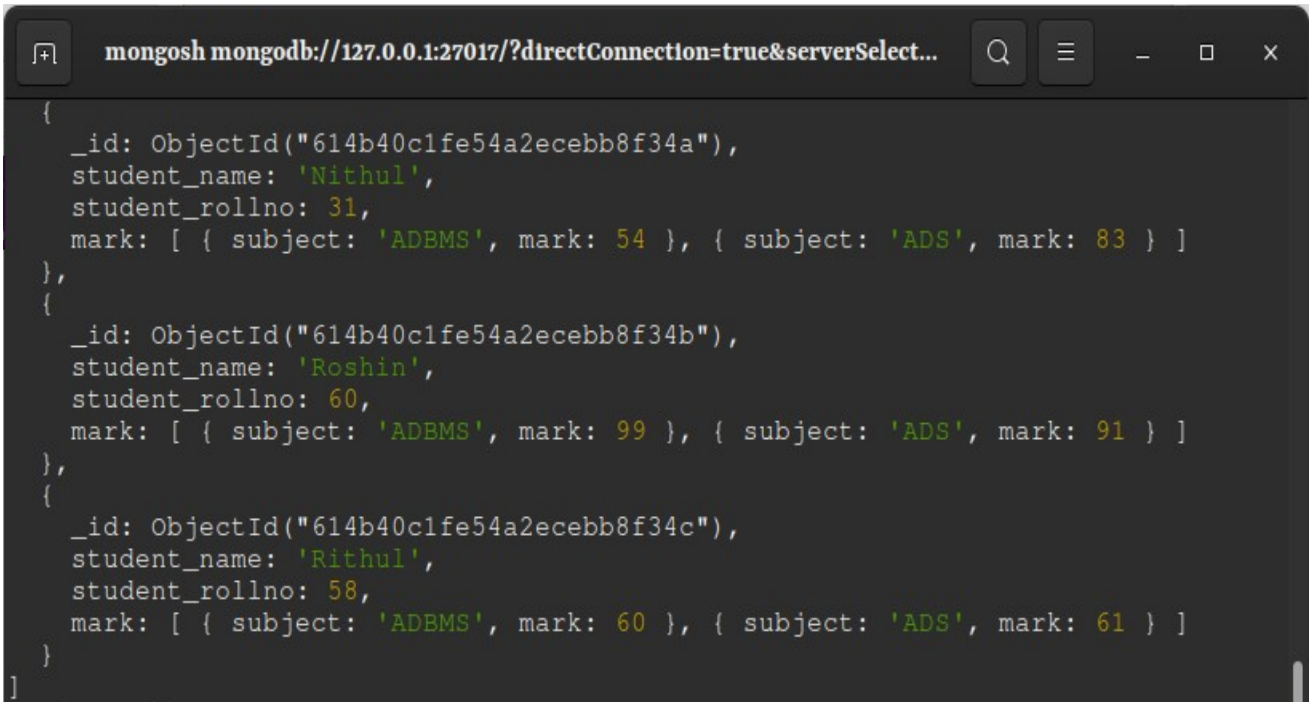
```
Myclass> db.createCollection("db_student")
{ ok: 1 }
Myclass>
```

3) Insert details of 10 students in a class

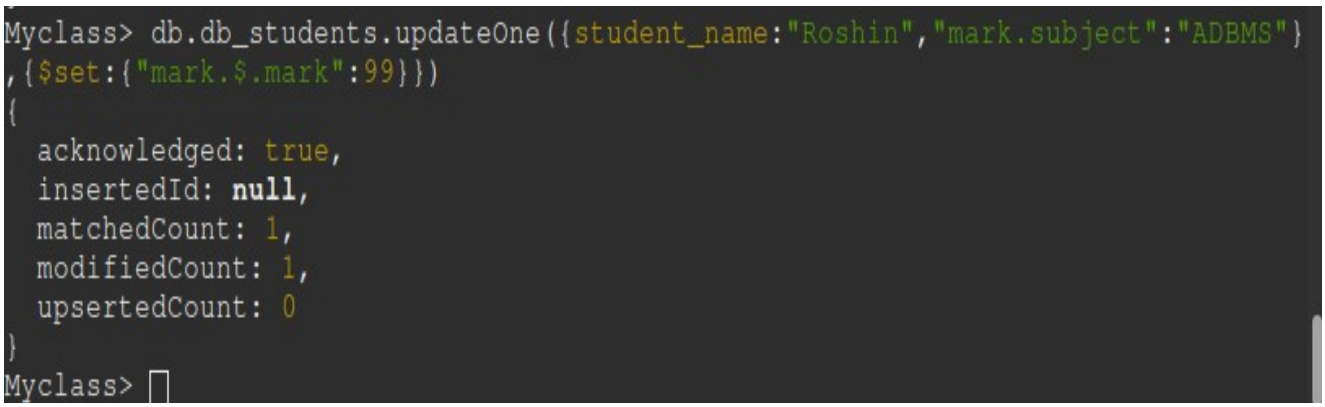
```
mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelect...
Myclass> db.db_students.insertMany([
... {student_name:'Sam',student_rollno:52,mark:[{
..... subject:'ADBMS',mark:88},{subject:'ADS',mark:93}]},
... {student_name:'Ram',student_rollno:58,mark:[{
..... subject:'ADBMS',mark:98},{subject:'ADS',mark:63}]},
... {student_name:'Miji',student_rollno:37,mark:[{
..... subject:'ADBMS',mark:58},{subject:'ADS',mark:50}]},
... {student_name:'Manu',student_rollno:35,mark:[{
..... subject:'ADBMS',mark:71},{subject:'ADS',mark:70}]},
... {student_name:'Yajul',student_rollno:65,mark:[{
..... subject:'ADBMS',mark:80},{subject:'ADS',mark:85}]},
... {student_name:'Naval',student_rollno:28,mark:[{
..... subject:'ADBMS',mark:99},{subject:'ADS',mark:99}]},
... {student_name:'Niramal',student_rollno:22,mark:[{
..... subject:'ADBMS',mark:77},{subject:'ADS',mark:69}]},
... {student_name:'Nithul',student_rollno:31,mark:[{
..... subject:'ADBMS',mark:54},{subject:'ADS',mark:83}]},
... {student_name:'Roshin',student_rollno:60,mark:[{
..... subject:'ADBMS',mark:90},{subject:'ADS',mark:91}]},
... {student_name:'Rithul',student_rollno:58,mark:[{
..... subject:'ADBMS',mark:51},{subject:'ADS',mark:61}]}])
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("614b40c1fe54a2ecebb8f343"),
    '1': ObjectId("614b40c1fe54a2ecebb8f344"),
    '2': ObjectId("614b40c1fe54a2ecebb8f345"),
    '3': ObjectId("614b40c1fe54a2ecebb8f346"),
    '4': ObjectId("614b40c1fe54a2ecebb8f347"),
    '5': ObjectId("614b40c1fe54a2ecebb8f348"),
    '6': ObjectId("614b40c1fe54a2ecebb8f349"),
    '7': ObjectId("614b40c1fe54a2ecebb8f34a"),
    '8': ObjectId("614b40c1fe54a2ecebb8f34b"),
    '9': ObjectId("614b40c1fe54a2ecebb8f34c")
  }
```

4) List the entire students in the class

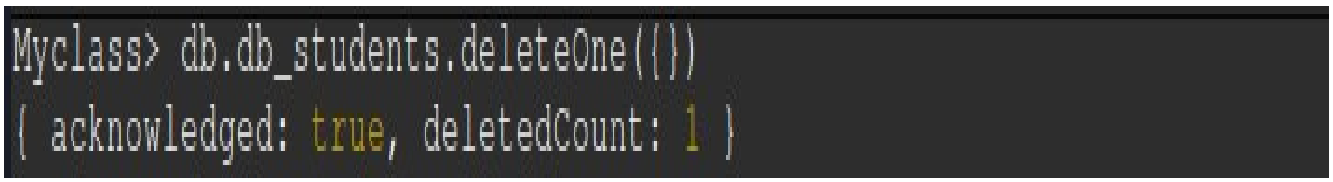
```
Myclass> db.db_students.find()
[
  {
    _id: ObjectId("614b40c1fe54a2ecebb8f344"),
    student_name: 'Ram',
    student_rollno: 58,
    mark: [ { subject: 'ADBMS', mark: 98 }, { subject: 'ADS', mark: 63 } ]
  },
  {
    _id: ObjectId("614b40c1fe54a2ecebb8f345"),
    student_name: 'Miji',
    student_rollno: 37,
    mark: [ { subject: 'ADBMS', mark: 58 }, { subject: 'ADS', mark: 50 } ]
  },
  {
    _id: ObjectId("614b40c1fe54a2ecebb8f346"),
    student_name: 'Manu',
    student_rollno: 35,
    mark: [ { subject: 'ADBMS', mark: 71 }, { subject: 'ADS', mark: 70 } ]
  },
  {
    _id: ObjectId("614b40c1fe54a2ecebb8f347"),
    student_name: 'Yajul',
    student_rollno: 65,
    mark: [ { subject: 'ADBMS', mark: 80 }, { subject: 'ADS', mark: 85 } ]
  },
  {
    _id: ObjectId("614b40c1fe54a2ecebb8f348"),
    student_name: 'Naval',
    student_rollno: 28,
    mark: [ { subject: 'ADBMS', mark: 99 }, { subject: 'ADS', mark: 99 } ]
  },
```



5) Update mark of any students in the collection “db_students”



6) Delete the data of first student in the collection



EXPERIMENT NO.3

AIM:

- {emp_name : “Sharath”, designation: “sales”, salary: 15000}
  {emp_name : “Shyam”, designation: “manager”, salary: 50000}
  {emp_name : “Abraham”, designation: “superwiser”, salary: 35000}
  {emp_name : “Muhammed”, designation: “sales”, salary: 15000}
  {emp_name : “Rohith”, designation: “sales”, salary: 20000}
  {emp_name : “Nirmal”, designation: “driver”, salary: 20000}
  {emp_name : “Samuel”, designation: “superwiser”, salary: 35000}
  {emp_name : “Johns”, designation: “sales”, salary: 15000}

1. Create a database Employee
2. Create a collection “db_employee”
3. Insert the above employee details to the collection called “db_employee”
4. List the details of employee having ‘salary > 15000’ AND designation = “superwiser”
5. List the details of employee who working in ‘sales’ department
6. Update the emp_name :’’Sharath” into Jamsheer
7. Find the total sum of salary of employees under the sales department

RESULT:

1) Create a database Employee

```
Myclass> use Employee
switched to db Employee
Employee>
```

2) Create a collection “db_employee”

```
Employee> db.createCollection("db_employee")
{ ok: 1 }
Employee>
```

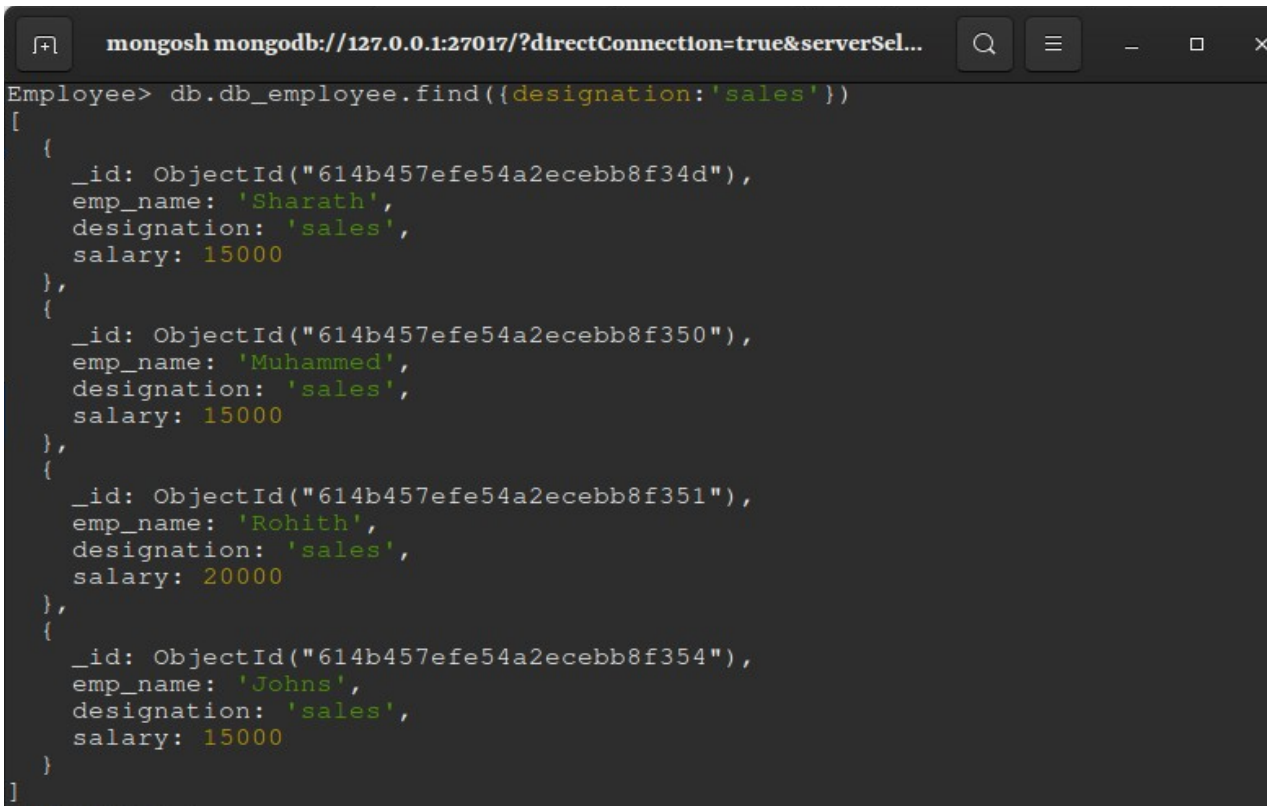
3) Insert the above employee details to the collection

```
Employee> db.db_employee.insertMany([ { emp_name: 'Sharath', designation: 'sal
es', salary: 15000 }, { emp_name: 'Shyam', designation: 'manager', salary: 500
00 }, { emp_name: 'Abraham', designation: 'superwiser', salary: 35000 }, { emp
_name: 'Muhammed', designation: 'sales', salary: 15000 }, { emp_name: 'Rohith'
, designation: 'sales', salary: 20000 }, { emp_name: 'Nirmal', designation: 'd
river', salary: 20000 }, { emp_name: 'Samuel', designation: 'superwiser', sala
ry: 35000 }, { emp_name: 'Johns', designation: 'sales', salary: 15000 }])
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("614b457efe54a2ecebb8f34d"),
    '1': ObjectId("614b457efe54a2ecebb8f34e"),
    '2': ObjectId("614b457efe54a2ecebb8f34f"),
    '3': ObjectId("614b457efe54a2ecebb8f350"),
    '4': ObjectId("614b457efe54a2ecebb8f351"),
    '5': ObjectId("614b457efe54a2ecebb8f352"),
    '6': ObjectId("614b457efe54a2ecebb8f353"),
    '7': ObjectId("614b457efe54a2ecebb8f354")
```

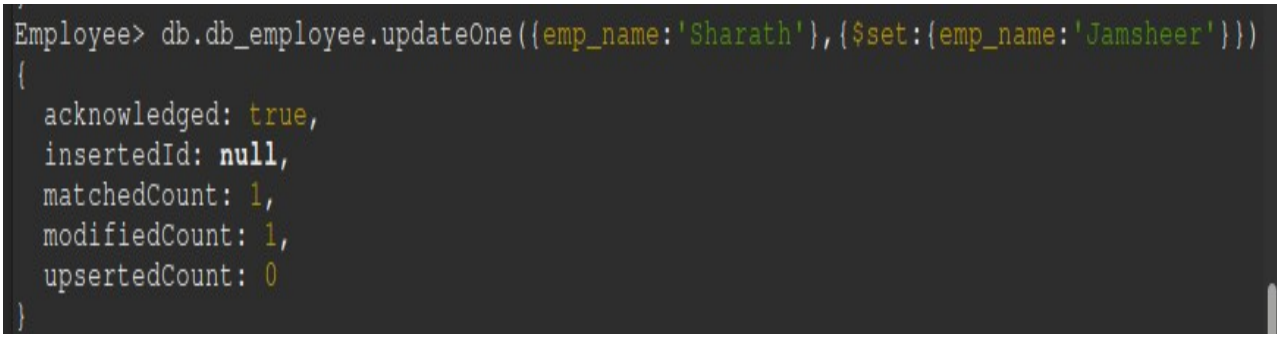
4) List the details of employee having ‘salary > 15000’ AND designation = “superwiser”

```
Employee> db.db_employee.find({$and :[{salary:{$gt:15000}},{designation:'super
wiser'}]})
[
  {
    _id: ObjectId("614b457efe54a2ecebb8f34f"),
    emp_name: 'Abraham',
    designation: 'superwiser',
    salary: 35000
  },
  {
    _id: ObjectId("614b457efe54a2ecebb8f353"),
    emp_name: 'Samuel',
    designation: 'superwiser',
    salary: 35000
  }
]
```

5) List the details of employee who working in ‘sales’ department



6) Update the emp_name :’’Sharath” into Jamsheer



7) Find the total sum of salary of employees under the sales department