

## Lab Assignment - 8

Q1.

- a) Create Database company and create a Collection with name employee
- b) Insert some documents to the collection with fields empid, name, salary and designation.
- c) Display all the employee details.
- d) Update salary of a particular employee.
- e) Add one more field department to the collection.
- f) Display the fields name, salary and designation for all the documents.
- g) Display the fields name, salary and designation for all the documents but exclude the field \_id.
- h) Display all employee details whose salary is greater than a specified value.

```
test> use company
switched to db company
company> db.employee.insertMany([
..   { empid: 1, name: "Jaya", salary: 50000, designation: "Software Engineer" },
..   { empid: 2, name: " Smitha", salary: 60000, designation: "Project Manager" },
..   { empid: 3, name: "Johnson", salary: 45000, designation: "QA Engineer" }
.. ])
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId("65588b1c090384f21571b43b"),
    '1': ObjectId("65588b1c090384f21571b43c"),
    '2': ObjectId("65588b1c090384f21571b43d")
  }
}
company> db.employee.find()
[
  {
    _id: ObjectId("65588b1c090384f21571b43b"),
    empid: 1,
    name: 'Jaya',
    salary: 50000,
    designation: 'Software Engineer'
  },
  {
    _id: ObjectId("65588b1c090384f21571b43c"),
    empid: 2,
    name: ' Smitha',
    salary: 60000,
    designation: 'Project Manager'
  },
  {
    _id: ObjectId("65588b1c090384f21571b43d"),
    empid: 3,
    name: 'Johnson',
    salary: 45000,
    designation: 'QA Engineer'
  }
]
```

```

company> db.employee.updateOne({empid:1},{ $set:{salary:55000}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
company> db.employee.updateMany({},{$set:{department:'IT'}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 3,
  modifiedCount: 3,
  upsertedCount: 0
}
company> db.employee.find({},{_id:0,name:1,salary:1,designation:1})
[
  { name: 'Jaya', salary: 55000, designation: 'Software Engineer' },
  { name: ' Smitha', salary: 60000, designation: 'Project Manager' },
  { name: 'Johnson', salary: 45000, designation: 'QA Engineer' }
]
company> db.employee.find()
[
  {
    _id: ObjectId("65588b1c090384f21571b43b"),
    empid: 1,
    name: 'Jaya',
    salary: 55000,
    designation: 'Software Engineer',
    department: 'IT'
  },
  {
    _id: ObjectId("65588b1c090384f21571b43c"),
    empid: 2,
    name: ' Smitha',
    salary: 60000,
    designation: 'Project Manager',
    department: 'IT'
  },
  {
    _id: ObjectId("65588b1c090384f21571b43d"),
    empid: 3,
    name: 'Johnson',
    salary: 45000,
    designation: 'QA Engineer',
    department: 'IT'
  }
]

```

```
company> db.employee.find({salary:{$gt:55000}})
[
  {
    _id: ObjectId("65588b1c090384f21571b43c"),
    empid: 2,
    name: 'Smitha',
    salary: 60000,
    designation: 'Project Manager',
    department: 'IT'
  }
]
company>
```

Q2

a. Create a collection student with student-ID ,Name, batch(Science ,Commerce) ,age, student ,status (present/Absent)etc....

```
school> use lab8
switched to db lab8
lab8> db.student.insertMany([{'student-id':1,Name:'Johny',Batch:'Science',age:20,student_status:'present'},{'student-id':2,Name:'Jerin',Batch:'Commerce',age:21,student_status:'absent'},{'student-id':3,Name:'Sreyan',Batch:'Science',age:20,student_status:'absent'},{'student-id':4,Name:'Smitha',Batch:'Commerce',age:20,student_status:'present'}])
acknowledged: true,
insertedIds: {
  '0': ObjectId("65589dd5a1db0dbd8ee2cdbc"),
  '1': ObjectId("65589dd5a1db0dbd8ee2cdbc"),
  '2': ObjectId("65589dd5a1db0dbd8ee2cdbc"),
  '3': ObjectId("65589dd5a1db0dbd8ee2cdbc")
}
```

b. Display the students details in descending order based on their age

```
lab8> db.Student1.find()
[
  {
    _id: ObjectId("65589dd5a10db9bd8ee2cdba"),
    'student-id': 1,
    Name: 'Johncy',
    Batch: 'Science',
    age: 20,
    student_status: 'present'
  },
  {
    _id: ObjectId("65589dd5a10db9bd8ee2cdbb"),
    'student-id': 2,
    Name: 'Jerin',
    Batch: 'Commerce',
    age: 21,
    student_status: 'absent'
  },
  {
    _id: ObjectId("65589dd5a10db9bd8ee2cdbc"),
    'student-id': 3,
    Name: 'Sreyan',
    Batch: 'Science',
    age: 20,
    student_status: 'absent'
  },
  {
    _id: ObjectId("65589dd5a10db9bd8ee2cdbd"),
    'student-id': 4,
    Name: 'Smitha',
    Batch: 'Commerce',
    age: 20,
    student_status: 'Present'
  }
]
```

```

lab8> db.Student1.find().sort({age:-1})
[
  {
    _id: ObjectId("65589dd5a10db9bd8ee2cddb"),
    'student-id': 2,
    Name: 'Jerin',
    Batch: 'Commerce',
    age: 21,
    student_status: 'absent'
  },
  {
    _id: ObjectId("65589dd5a10db9bd8ee2cdba"),
    'student-id': 1,
    Name: 'Johncy',
    Batch: 'Science',
    age: 20,
    student_status: 'present'
  },
  {
    _id: ObjectId("65589dd5a10db9bd8ee2cdbc"),
    'student-id': 3,
    Name: 'Sreyan',
    Batch: 'Science',
    age: 20,
    student_status: 'absent'
  },
  {
    _id: ObjectId("65589dd5a10db9bd8ee2cddb"),
    'student-id': 4,
    Name: 'Smitha',
    Batch: 'Commerce',
    age: 20,
    student_status: 'Present'
  }
]
lab8>

```

c. Change the batch-name science to science and technology

```

lab8> db.Student1.updateMany({Batch:'Science'},{$set:{Batch:'Science&Technology'}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 2,
  modifiedCount: 2,
  upsertedCount: 0
}

```

d. Count the number of students who are present

```

lab8> db.Student1.count({'student_status':"present"})
1
lab8> db.Student1.find().count({'student_status':"present"})
4

```

e. Remove the status field

```
lab8> db.Student1.updateMany({},{$unset:{student_status:" "}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 4,
  modifiedCount: 4,
  upsertedCount: 0
}
```

f. Remove all students from commerce batch

```
lab8> db.Student1.deleteMany({Batch:'Commerce'})
{ acknowledged: true, deletedCount: 2 }
lab8> db.Student1.find()
[
  {
    _id: ObjectId("65589dd5a10db9bd8ee2cdba"),
    'student-id': 1,
    Name: 'Johncy',
    Batch: 'Science&Technology',
    age: 20
  },
  {
    _id: ObjectId("65589dd5a10db9bd8ee2cdbc"),
    'student-id': 3,
    Name: 'Sreyan',
    Batch: 'Science&Technology',
    age: 20
  }
]
```