Experiment 4

1. Create a collection student.

Command:

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

Output:

```
university> db.createCollection("student")
{ ok: 1 }
```

2. Insert 10 documents with fields rollno, name, class, average and hobby.

Command:

```
db.student.insertMany([
   {
      rollno: 12,
      name: "Rohit",
      class: "TYBCA",
      average: 67,
      hobby: "tennis"
   },
   {
      rollno: 10,
      name: "Praniket",
      class: "SYBCA",
      average: 88,
      hobby: "football"
   },
   {
      rollno: 5,
      name: "Tushar",
      class: "FYBCA",
      average: 67,
      hobby: "cricket"
   },
   {
      rollno: 4,
      name: "Atharva",
      class: "TYBCA",
      average: 99,
      hobby: "chess"
   },
   {
      rollno: 6,
      name: "Anjali",
      class: "SYBCA",
      average: 89,
      hobby: "kabaddi"
   },
   {
      rollno: 7,
```

```
        name: "Namrata",
        class: "FYBCA",
        average: 77,
        hobby: "hockey"
    },
    {
        rollno: 9,
        name: "Suchita",
        class: "SYBCA",
        average: 80,
        hobby: "kabaddi"
    },
    {
        rollno: 11,
        name: "Vinod",
        class: "FYBCA",
        average: 79,
        hobby: "handball"
    },
    {
        rollno: 1,
        name: "Akash",
        class: "FYBCA",
        average: 69,
        hobby: "cricket"
    },
    {
        rollno: 2,
        name: "Jay",
        class: "SYBCA",
        average: 55,
        hobby: "judo"
    },
])
```

Output:

```
{
 acknowledged: true,
 insertedIds: {
   '0': ObjectId("641187e265657a777b99ff5e"),
   '1': ObjectId("641187e265657a777b99ff5f"),
   '2': ObjectId("641187e265657a777b99ff60"),
   '3': ObjectId("641187e265657a777b99ff61"),
   '4': ObjectId("641187e265657a777b99ff62"),
   '5': ObjectId("641187e265657a777b99ff63"),
   '6': ObjectId("641187e265657a777b99ff64"),
   '7': ObjectId("641187e265657a777b99ff65"),
   '8': ObjectId("641187e265657a777b99ff66"),
   '9': ObjectId("641187e265657a777b99ff67")
 }
```

```
}
```

3. Show documents in collection student.

Command:

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

Output:

```
[
  {
    _id: ObjectId("641187e265657a777b99ff5e"),
    rollno: 12,
    name: 'Rohit',
    class: 'TYBCA',
    average: 67,
    hobby: 'tennis'
  },
  {
    _id: ObjectId("641187e265657a777b99ff5f"),
    rollno: 10,
    name: 'Praniket',
    class: 'SYBCA',
    average: 88,
    hobby: 'football'
  },
  {
    _id: ObjectId("641187e265657a777b99ff60"),
    rollno: 5,
    name: 'Tushar',
    class: 'FYBCA',
    average: 67,
    hobby: 'cricket'
  },
  {
    _id: ObjectId("641187e265657a777b99ff61"),
    rollno: 4,
    name: 'Atharva',
    class: 'TYBCA',
    average: 99,
    hobby: 'chess'
  },
  {
    _id: ObjectId("641187e265657a777b99ff62"),
    rollno: 6,
    name: 'Anjali',
    class: 'SYBCA',
    average: 89,
    hobby: 'kabaddi'
  },
  {
    _id: ObjectId("641187e265657a777b99ff63"),
```

```
  rollno: 7,
  name: 'Namrata',
  class: 'FYBCA',
  average: 77,
  hobby: 'hockey'
 },
 {
  _id: ObjectId("641187e265657a777b99ff64"),
  rollno: 9,
  name: 'Suchita',
  class: 'SYBCA',
  average: 80,
  hobby: 'kabaddi'
 },
 {
  _id: ObjectId("641187e265657a777b99ff65"),
  rollno: 11,
  name: 'Vinod',
  class: 'FYBCA',
  average: 79,
  hobby: 'handball'
 },
 {
  _id: ObjectId("641187e265657a777b99ff66"),
  rollno: 1,
  name: 'Akash',
  class: 'FYBCA',
  average: 69,
  hobby: 'cricket'
 },
 {
  _id: ObjectId("641187e265657a777b99ff67"),
  rollno: 2,
  name: 'Jay',
  class: 'SYBCA',
  average: 55,
  hobby: 'judo'
 }
]
```

4. Update document where key value of field hobby is football as tennis.

Command:

```
university> db.student.updateMany(
   {hobby:"football"},
   {$set:{
      hobby:"tennis"
   }}
)
```

Output:

```
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

5. Remove document where key value of class as TYBCA.

Command:

```
university> db.student.deleteMany({ class: "TYBCA" })
```

Output:

```
{ acknowledged: true, deletedCount: 2 }
```

6. Find data where hobby is tennis and class is SYBCA.

Command:

```
university> db.student.find( { hobby: "tennis", class: "SYBCA" })
```

Output:

```
[
  {
    _id: ObjectId("641187e265657a777b99ff5f"),
    rollno: 10,
    name: 'Praniket',
    class: 'SYBCA',
    average: 88,
    hobby: 'tennis'
  }
]
```

7. Find data where name is Rohit or class is TYBCA

Command:

```
university> db.student.find(
    {
        $or: [
            { name: "Rohit" },
            { class: "TYBCA" }
        ]
    }
)
```

Output:

```
[
  {
    _id: ObjectId("641187e265657a777b99ff63"),
    rollno: 7,
    name: 'Rohit',
    class: 'FYBCA',
    average: 77,
```

```
  hobby: 'hockey'
 },
 {
  _id: ObjectId("641187e265657a777b99ff65"),
  rollno: 11,
  name: 'Vinod',
  class: 'TYBCA',
  average: 79,
  hobby: 'handball'
 }
]
```

8. Create collection employee.

Command:

```
university> db.createCollection("employee")
```

Output:

```
{ ok: 1 }
```

9. Show all collections and databases.

Command:

```
university> show collections
```

Output:

```
employee
student
```

Command:

```
university> show dbs
```

Output:

```
admin       40.00 KiB
blog        72.00 KiB
config      108.00 KiB
local       72.00 KiB
university  80.00 KiB
```

10. Insert 10 documents in employee with fields no, name, salary, designation and department.

Command:

```
university> db.employee.insertMany([
  {
    no: 1,
    name: "Sangram",
    salary: 50000,
    designation: "Assistant Professor",
    department: "CSE"
  },
  {
    no: 2,
    name: "Amit",
    salary: 10000,
```

```
    designation: "Clerk",
    department: "Transport"
  },
  {
    no: 3,
    name: "Akshay",
    salary: 10000,
    designation: "Lab Assistant",
    department: "CSE"
  },
  {
    no: 4,
    name: "Abhijeet",
    salary: 15000,
    designation: "Assistant",
    department: "Admission"
  },
  {
    no: 5,
    name: "Rahul",
    salary: 20000,
    designation: "Assistant",
    department: "HR"
  },
  {
    no: 6,
    name: "Vishal",
    salary: 25000,
    designation: "Assistant Professor",
    department: "MCA"
  },
  {
    no: 7,
    name: "Narendra",
    salary: "30000",
    designation: "COE",
    department: "Examination"
  },
  {
    no: 8,
    name: "Arun",
    salary: 100000,
    designation: "Vice Chancellor",
    department: "Board Member"
  },
  {
    no: 9,
    name: "Aman",
    salary: 25000,
    designation: "Manager",
```

```
    department: "Marketing"
  },
  {
    no: 10,
    name: "Ashneer",
    salary: 80000,
    designation: "CEO",
    department: "Board Member"
  },
])
```

Output:

```
{
 acknowledged: true,
 insertedIds: {
  '0': ObjectId("642d2f4c4748c9ae0afa45d8"),
  '1': ObjectId("642d2f4c4748c9ae0afa45d9"),
  '2': ObjectId("642d2f4c4748c9ae0afa45da"),
  '3': ObjectId("642d2f4c4748c9ae0afa45db"),
  '4': ObjectId("642d2f4c4748c9ae0afa45dc"),
  '5': ObjectId("642d2f4c4748c9ae0afa45dd"),
  '6': ObjectId("642d2f4c4748c9ae0afa45de"),
  '7': ObjectId("642d2f4c4748c9ae0afa45df"),
  '8': ObjectId("642d2f4c4748c9ae0afa45e0"),
  '9': ObjectId("642d2f4c4748c9ae0afa45e1")
 }
}
```

11. Show all data in collection employee.

Command:

```
university> db.employee.find()
```

Output:

```
[
 {
  _id: ObjectId("642d2f4c4748c9ae0afa45d8"),
  no: 1,
  name: 'Sangram',
  salary: 50000,
  designation: 'Assistant Professor',
  department: 'CSE'
 },
 {
  _id: ObjectId("642d2f4c4748c9ae0afa45d9"),
  no: 2,
  name: 'Amit',
  salary: 10000,
  designation: 'Clerk',
  department: 'Transport'
 },
 {
```

```
  _id: ObjectId("642d2f4c4748c9ae0afa45da"),
  no: 3,
  name: 'Akshay',
  salary: 10000,
  designation: 'Lab Assistant',
  department: 'CSE'
},
{
  _id: ObjectId("642d2f4c4748c9ae0afa45db"),
  no: 4,
  name: 'Abhijeet',
  salary: 15000,
  designation: 'Assistant',
  department: 'Admission'
},
{
  _id: ObjectId("642d2f4c4748c9ae0afa45dc"),
  no: 5,
  name: 'Rahul',
  salary: 20000,
  designation: 'Assistant',
  department: 'HR'
},
{
  _id: ObjectId("642d2f4c4748c9ae0afa45dd"),
  no: 6,
  name: 'Vishal',
  salary: 25000,
  designation: 'Assistant Professor',
  department: 'MCA'
},
{
  _id: ObjectId("642d2f4c4748c9ae0afa45de"),
  no: 7,
  name: 'Narendra',
  salary: '30000',
  designation: 'COE',
  department: 'Examination'
},
{
  _id: ObjectId("642d2f4c4748c9ae0afa45df"),
  no: 8,
  name: 'Arun',
  salary: 100000,
  designation: 'Vice Chancellor',
  department: 'Board Member'
},
{
  _id: ObjectId("642d2f4c4748c9ae0afa45e0"),
  no: 9,
```

```
    name: 'Aman',
    salary: 25000,
    designation: 'Manager',
    department: 'Marketing'
  },
  {
    _id: ObjectId("642d2f4c4748c9ae0afa45e1"),
    no: 10,
    name: 'Ashneer',
    salary: 80000,
    designation: 'CEO',
    department: 'Board Member'
  }
]
```

12. Display data where salary > 20000.

Command:

```
university> db.employee.find({ salary: { $gt: 20000 } })
```

Output:

```
[
  {
    _id: ObjectId("642d2f4c4748c9ae0afa45d8"),
    no: 1,
    name: 'Sangram',
    salary: 50000,
    designation: 'Assistant Professor',
    department: 'CSE'
  },
  {
    _id: ObjectId("642d2f4c4748c9ae0afa45dd"),
    no: 6,
    name: 'Vishal',
    salary: 25000,
    designation: 'Assistant Professor',
    department: 'MCA'
  },
  {
    _id: ObjectId("642d2f4c4748c9ae0afa45df"),
    no: 8,
    name: 'Arun',
    salary: 100000,
    designation: 'Vice Chancellor',
    department: 'Board Member'
  },
  {
    _id: ObjectId("642d2f4c4748c9ae0afa45e0"),
    no: 9,
    name: 'Aman',
    salary: 25000,
```

```
    designation: 'Manager',
    department: 'Marketing'
  },
  {
    _id: ObjectId("642d2f4c4748c9ae0afa45e1"),
    no: 10,
    name: 'Ashneer',
    salary: 80000,
    designation: 'CEO',
    department: 'Board Member'
  }
]
```

13. Find document where employee department is IT.

Command:

```
university> db.employee.find({ department: "IT" })
```

Output:

```
[
  {
    _id: ObjectId("642d2f4c4748c9ae0afa45dd"),
    no: 6,
    name: 'Vishal',
    salary: 25000,
    designation: 'Assistant Professor',
    department: 'IT'
  }
]
```

14. Remove document with key value department as marketing.

Command:

```
university> db.employee.deleteMany({ department: "Marketing" })
```

Output:

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

15. Insert document in employee with fields name, salary, city, hobby.

Command:

```
university> db.employee.insertOne({
    name: "Vivek",
    salary: 75000,
    city: "Pune",
    hobby: "Cricket"
})
```

Output:

```
{
  acknowledged: true,
  insertedId: ObjectId("642d35ae4748c9ae0afa45e2")
}
```