**Experiment 4**

1. **Create a collection student.**

**Command:**

university> db.createCollection("student")

**Output:**

university> db.createCollection("student")

{ ok: 1 }

1. **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")

}

}

1. **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'

}

]

1. **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

}

1. **Remove document where key value of class as TYBCA.**

**Command:**

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

**Output:**

{ acknowledged: true, deletedCount: 2 }

1. **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'

}

]

1. **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'

}

]

1. **Create collection employee.**

**Command:**

university> db.createCollection("employee")

**Output:**

{ ok: 1 }

1. **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

1. **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")

}

}

1. **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'

}

]

1. **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'

}

]

1. **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'

}

]

1. **Remove document with key value department as marketing.**

**Command:**

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

**Output:**

{ acknowledged: true, deletedCount: 1 }

1. **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")

}