

LAB ASSIGNMENT – 1

DATE – 05.01.2026

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REGISTRATION NO. : AU/2023/0009869

ROLL NO. : UG/02/BTCSECSF/2023/020

SUBJECT : Unstructured Database Lab

SEC: E

Q1. Create a database named collegeDB and switch to it.

```
test> use collegeDB
switched to db collegeDB
```

Q2. Create a collection named students in the collegeDB database.

```
collegeDB> db.createCollection("Students")
{ ok: 1 }
```

Q3. Insert one document into the students collection with the following fields:

- Name
- rollNo
- department

- age

```
[OK. +]
collegeDB> db.Students.insertOne({name:"chayan",rollNo:020,department:"CSE CSF",age:20})
{
  acknowledged: true,
  insertedId: ObjectId('696dcfb65cbf86beb6e5d699')
}
```

Q4. Insert four more documents into the students collection with different values.

```
collegeDB> db.students.insertMany([
|   {
|     name: "Chayan Das",
|     rollNo: 020,
|     department: "CSE",
|     age: 21
|   },
|   {
|     name: "Suman Roy",
|     rollNo: 103,
|     department: "CSE",
|     age: 22
|   },
|   {
|     name: "Neha Singh",
|     rollNo: 104,
|     department: "ME",
|     age: 23
|   },
|   {
|     name: "Rahul Verma",
|     rollNo: 105,
|     department: "CSE",
|     age: 21
|   }
| ])
|
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('696dd1b55cbf86beb6e5d69a'),
    '1': ObjectId('696dd1b55cbf86beb6e5d69b'),
    '2': ObjectId('696dd1b55cbf86beb6e5d69c'),
    '3': ObjectId('696dd1b55cbf86beb6e5d69d')
  }
}
```

Q5. Display all documents present in the students collection.

```
collegeDB> db.students.find()
|
[
[  {
      _id: ObjectId('696dd1b55cbf86beb6e5d69a'),
      name: 'Chayan Das',
      rollNo: 16,
      department: 'CSE',
      age: 21
    },
    {
      _id: ObjectId('696dd1b55cbf86beb6e5d69b'),
      name: 'Suman Roy',
      rollNo: 103,
      department: 'CSE',
      age: 22
    },
    {
      _id: ObjectId('696dd1b55cbf86beb6e5d69c'),
      name: 'Neha Singh',
      rollNo: 104,
      department: 'ME',
      age: 23
    },
    {
      _id: ObjectId('696dd1b55cbf86beb6e5d69d'),
      name: 'Rahul Verma',
      rollNo: 105,
      department: 'CSE',
      age: 21
    }
]
```

Q6. Display only those students who belong to the CSE department.

```
collegeDB> db.students.find({ department: "CSE" })
|
[
  {
    _id: ObjectId('696dd1b55cbf86beb6e5d69a'),
    name: 'Chayan Das',
    rollNo: 16,
    department: 'CSE',
    age: 21
  },
  {
    _id: ObjectId('696dd1b55cbf86beb6e5d69b'),
    name: 'Suman Roy',
    rollNo: 103,
    department: 'CSE',
    age: 22
  },
  {
    _id: ObjectId('696dd1b55cbf86beb6e5d69d'),
    name: 'Rahul Verma',
    rollNo: 105,
    department: 'CSE',
    age: 21
  }
]
```

Q7. Update the age of one student (any one) to a new value.

```
collegeDB> db.students.updateOne(  
|   { rollNo: 105 },  
|   { $set: { age: 23 } }  
| )  
|  
{  
  acknowledged: true,  
  insertedId: null,  
  matchedCount: 1,  
  modifiedCount: 1,  
  upsertedCount: 0  
}
```

Q8. Delete one document from the students collection using any condition

```
collegeDB> db.students.deleteOne({ rollNo: 103 })  
|  
{ acknowledged: true, deletedCount: 1 }
```

```
_id: ObjectId('696dd1b55cbf86beb6e5d69a')
name : "Chayan Das"
rollNo : 16
department : "CSE"
age : 21
```

```
_id: ObjectId('696dd1b55cbf86beb6e5d69c')
name : "Neha Singh"
rollNo : 104
department : "ME"
age : 23
```

```
_id: ObjectId('696dd1b55cbf86beb6e5d69d')
name : "Rahul Verma"
rollNo : 105
department : "CSE"
age : 23
```

```
_id: ObjectId('696dd4cef2b10a91f75a5ed5')
name : "Chayan"
rollNo : 16
department : "CSE CSF"
age : 20
```