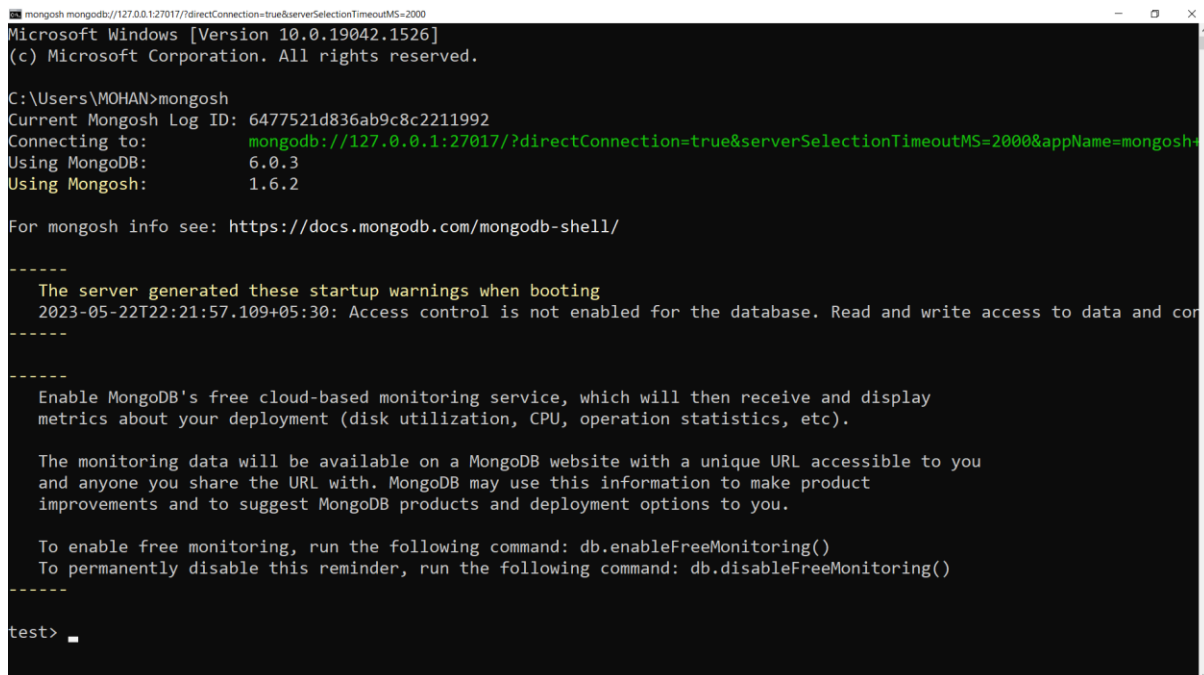# 10. Basic Querying with MongoDB Shell

Step 1: Open CMD and type **mongosh**.

```
mongosh mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000                                    —    □    ✕
Microsoft Windows [Version 10.0.19042.1526]
(c) Microsoft Corporation. All rights reserved.

C:\Users\MOHAN>mongosh
Current Mongosh Log ID: 6477521d836ab9c8c2211992
Connecting to:          mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+
Using MongoDB:          6.0.3
Using Mongosh:          1.6.2

For mongosh info see: https://docs.mongodb.com/mongodb-shell/

------
  The server generated these startup warnings when booting
  2023-05-22T22:21:57.109+05:30: Access control is not enabled for the database. Read and write access to data and con
------

------
  Enable MongoDB's free cloud-based monitoring service, which will then receive and display
  metrics about your deployment (disk utilization, CPU, operation statistics, etc).

  The monitoring data will be available on a MongoDB website with a unique URL accessible to you
  and anyone you share the URL with. MongoDB may use this information to make product
  improvements and to suggest MongoDB products and deployment options to you.

  To enable free monitoring, run the following command: db.enableFreeMonitoring()
  To permanently disable this reminder, run the following command: db.disableFreeMonitoring()
------

test>
```

Step 2: Type the following commands.

1)Create Database:

    use student;

Output:

    switched to db student
    student>

2)Create Collection:

    db.createCollection("stu_info");

Output:

    { ok: 1 }

3)Insert Document:

i)   insertOne()

    db.stu_info.insertOne({rollno : "22MCA001", name : "Mohan", dept : "MCA",
    per : 85.5});

Output:

    acknowledged: true,
    insertedId: ObjectId("63c6437b84db8d1f9af365f8")

ii) insertMany()

```
db.stu_info.insertMany([{rollno : "22MCA002", name : "Ajay", dept : "MCA",
per : 85},{rollno : "22MCA003", name : "Ram", dept : "MCA", per : 70}]);
```

Output:

```
acknowledged: true,
insertedIds: {'0': ObjectId("63c6456f84db8d1f9af365f9"),
```

4)Find Document:

i) find()

```
db.stu_info.find();
```

Output:

```
{
 _id: ObjectId("63c6437b84db8d1f9af365f8"),
 rollno: '22MCA001',
 name: 'Mohan',
 dept: 'MCA',
 per: 85.5
},

{
 _id: ObjectId("63c6456f84db8d1f9af365f9"),
 rollno: '22MCA002',
 name: 'Ajay',
 dept: 'MCA',
 per: 85
},

{
 _id: ObjectId("63c6456f84db8d1f9af365fa"),
 rollno: '22MCA003',
 name: 'Ram',
 dept: 'MCA',
 per: 70
}
```

ii) findOne()

```
db.stu_info.findOne({rollno : "22MCA001"});
```

Output:

```
{
 _id: ObjectId("63c6437b84db8d1f9af365f8"),
 rollno: '22MCA001',
 name: 'Mohan',
 dept: 'MCA',
```

```
 per: 85.5
}
```

5)Update Document:

i)   updateOne()

```
db.stu_info.updateOne({rollno : "22MCA001"},{$set : {name : "MOHAN K"}});
db.stu_info.findOne({rollno : "22MCA001"});
```

Output:

```
{
_id: ObjectId("63c6437b84db8d1f9af365f8"),
rollno: '22MCA001',
name: 'MOHAN K',
dept: 'MCA',
per: 85.5
}
```

ii)   updateMany()

```
db.stu_info.updateMany({rollno : "22MCA001"}, {$set : {per : 86}});
db.stu_info.findOne({rollno : "22MCA001"});
```

Output:

```
{
_id: ObjectId("63c6437b84db8d1f9af365f8"),
rollno: '22MCA001',
name: 'MOHAN K',
dept: 'MCA',
per: 86
}
```

6)Delete Documents:

i)   deleteOne()

```
db.stu_info.deleteOne({dept : "MCA"});
db.stu_info.find();
```

Output:

```
{
  _id: ObjectId("63c6456f84db8d1f9af365f9"),
  rollno: '22MCA002',
  name: 'Ajay',
  dept: 'MCA',
  per: 85
},
```

```
{
  _id: ObjectId("63c6456f84db8d1f9af365fa"),
  rollno: '22MCA003',
  name: 'Ram',
  dept: 'MCA',
  per: 70
}
```

ii)   deleteMany()

```
db.stu_info.deleteMany({dept : "MCA"});
db.stu_info.find();
```

7)Drop Collection:

```
db.stu_info.drop();
```

Output:

true

8)Drop Database:

```
db.dropDatabase()
```

Output:

{ok: 1, dropped: **'student'**}