MongoDB

Installation

Link download:

https://fastdl.mongodb.org/windows/mongodb-windows-x86_64-6.0.1-signed.msi

To check porporely install mongoDB

After download open go to c driver and programfile-->mongodb-->version→bin copy bin path

Method 1

```
C:\Users\Shubham>"C:\Program Files\MongoDB\Server\6.0\bin\mongod.exe" --version
db version v6.0.1
Build Info: {
    "version": "6.0.1",
    "gitVersion": "32f0f9c88dc44a2c8073a5bd47cf779d4bfdee6b",
    "modules": [],
    "allocator": "tcmalloc",
    "environment": {
        "distmod": "windows",
        "distarch": "x86_64",
        "target_arch": "x86_64"
}
```

Second download tools boost productily

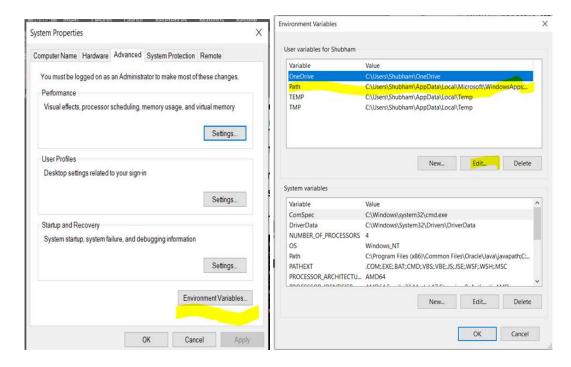
Link:

https://downloads.mongodb.com/compass/mongosh-1.5.4-win32-x64.zip

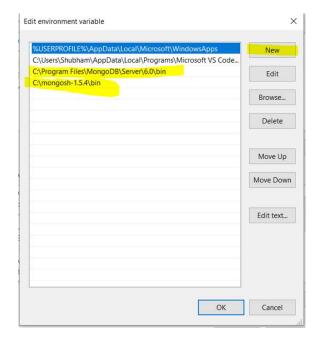
Extract the file and copy the file past it local c driver

Driect use mongo dbs

1)to click window button and search "edit the system environment variable"



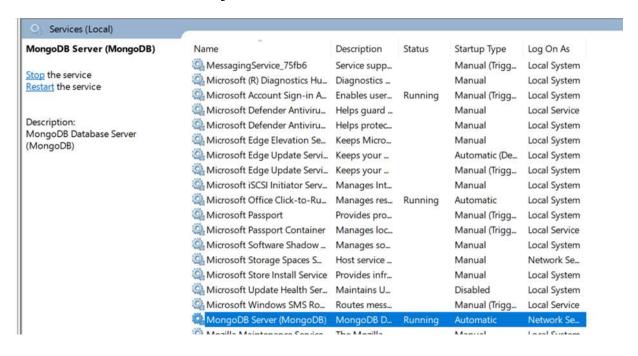
Click à edit



Go the local c driveràprogramàserveràversionàbinàcopy the path Go the local c driveràmongosh-1.5.4àbinàcopy path Past it ss

Click ok ok ok

Its always run the mongodb sever to check click the window and search services its always run



Complete the install part

Create Collection part

Create data base

Use anyname eg ss

test> use cscorner switched to db cscorner cscorner> db cscorner

To show database

```
cscorner> show dbs
admin 40.00 KiB
config 60.00 KiB
local 40.00 KiB
```

To create the collection

""db.createCollection("collection name")"

```
cscorner> db.createCollection("students")
{ ok: 1 }
```

Insert collection

"Db.collection name.insertOne({"rollno":9231,"name":"shubham"})"

```
cscorner> db.students.insertOne({"rollno":9231,"name":"shubham"})
{
   acknowledged: true,
   insertedId: ObjectId("6305bccc152e052821b5bfd7")
}
```

Show collection

"Show collection"

```
cscorner> show collections
students
sscorner> db students find protty()
```

To view collection

"Db.collection name .find().pretty()"

To delete and drop the collection

"Db.colection name.drop()"

"Db.dropDatabase"

```
cscorner> db.students.drop()
true
```

```
cscorner> db.dropDatabase()
{ ok: 1, dropped: 'cscorner' }
```

```
cscorner> show dbs
admin 40.00 KiB
config 108.00 KiB
local 40.00 KiB
cscorner>
```

Complete create the collection and delete or drop the collection

Important syntax

1)how to databases

Show dbs

```
test> show dbs
admin 40.00 KiB
config 60.00 KiB
local 40.00 KiB
test>
```

2)how to create database

Use student

```
test> use student
switched to db student
student>
```

3)how to create collection

db.10thclass.insertOne({"roll":21,"name":"shubham"})

```
student> db.tenclass.insertOne({name:"shubham","name":"shubham"})
{
   acknowledged: true,
   insertedId: ObjectId("630654191a0466f0161502fc")
}
student>
```

4)how to show collection

Show collections

db.tenclass.find().pretty()

5)how to delete the database

"Db.colection name.drop()"

"Db.dropDatabase"

```
cscorner> db.students.drop()
true
```

```
cscorner> db.dropDatabase()
{ ok: 1, dropped: 'cscorner' }
```

```
cscorner> show dbs
admin 40.00 KiB
config 108.00 KiB
local 40.00 KiB
cscorner>
```

Create database Create collection Create document

❖ insertMany

Syntax "db.collection name.insertMany([{},{},{},{})])

Read

db.collection.find(query,projection)

Query→ pass and find the particular data Projection→you can see data or not with the use of projection

Question to solve

1. Find all results to collection.

2. Show result in pretty format

```
colleges> db.students.find().pretty()
   id: ObjectId("630704ae63256fbc59f0fe68"),
   name: 'shubham',
   email: 'shubham@gmail.com',
   mno: 87867767,
   fees: true
 },
   _id: ObjectId("630704ae63256fbc59f0fe69"),
   name: 'suraj',
   email: 'suraj@gamail.com',
   mno: 9777985,
   fess: true
   id: ObjectId("630704ae63256fbc59f0fe6a"),
   name: 'aftab',
   email: 'aftab@gmail.com',
   mno: 78865868,
   fees: true
 },
   _id: ObjectId("630704ae63256fbc59f0fe6b"),
   name: 'kuldeep',
   email: 'kuldeep@gmail.com',
   mno: 787885868,
   fees: true
colleges>
```

3. Show particular document.

Query use

Only show one name particular data Syntax

db.students.find({name:"shubham"}).pretty()

```
colleges> db.students.find({name:"shubham"}).pretty()

{
    _id: ObjectId("630704ae63256fbc59f0fe68"),
    name: 'shubham',
    email: 'shubham@gmail.com',
    mno: 87867767,
    fees: true
  }
}
colleges>
```

But you see all the field like name, email, mno, fess

4. Show particular field in one document.

Projection

Only show one name particular data and one field Syntax

db.students.find({name:"shubham"},{name:1}).pretty()

But projection 0 than false and 1 than true

You write 0 they do not print but you write 1 the only print when you written 1

```
colleges> db.students.find({name:"shubham"},{name:1}).pretty()
[ { _id: ObjectId("630704ae63256fbc59f0fe68"), name: 'shubham' } ]
colleges>
```

This ss only print name filed because you written 1

Note: id is default every where print

5. Show particular filed in one document without ID. You not see the id then write _id:0

db.students.find({name"shubham"},{_id:0,name:1}).pretty()

```
colleges> db.students.find({name:"shubham"},{name:1,_id:0}).pretty()
[ { name: 'shubham' } ]
colleges>
```

6. Set the query "fees:true" and get the one document.

Limit

Can se limit document but print all the feld

```
colleges> db.students.find({fees:true}).pretty()
 {
   _id: ObjectId("630704ae63256fbc59f0fe68"),
   name: 'shubham',
   email: 'shubham@gmail.com',
   mno: 87867767,
   fees: true
 },
   _id: ObjectId("630704ae63256fbc59f0fe6a"),
   name: 'aftab',
   email: 'aftab@gmail.com',
   mno: 78865868,
   fees: true
   _id: ObjectId("630704ae63256fbc59f0fe6b"),
   name: 'kuldeep',
   email: 'kuldeep@gmail.com',
   mno: 787885868,
   fees: true
```

Limit syntax

db.students.fint({fees:true}).pretty().limit(2)

Only 2 limit print

```
colleges> db.students.find({fees:true}).pretty().limit(2)

{
    _id: ObjectId("630704ae63256fbc59f0fe68"),
    name: 'shubham',
    email: 'shubham@gmail.com',
    mno: 87867767,
    fees: true
},

{
    _id: ObjectId("630704ae63256fbc59f0fe6a"),
    name: 'aftab',
    email: 'aftab@gmail.com',
    mno: 78865868,
    fees: true
}
```

7. Please use another method for 6 question and get the result. Not use limit find one field

```
colleges> db.students.findOne({fees:true}).pretty()
TypeError: db.students.f ... true}).pretty is not a function
colleges>
```

Note :not use pretty because its not a function pretty is show collection is good formate

```
colleges> db.students.findOne({fees:true})
{
    _id: ObjectId("630704ae63256fbc59f0fe68"),
    name: 'shubham',
    email: 'shubham@gmail.com',
    mno: 87867767,
    fees: true
}
```

8. Apply on 6 question and skip 1 document and get next result **Skip**

Skip the document synatx

db.student.find().pretty().skip(1)

```
colleges> db.students.find({fees:true}).pretty().limit(1).skip(1)
    _id: ObjectId("630704ae63256fbc59f0fe6a"),
   name: 'aftab',
   email: 'aftab@gmail.com',
   mno: 78865868,
   fees: true
colleges> db.students.find().pretty().skip(1)
    _id: ObjectId("630704ae63256fbc59f0fe69"),
   name: 'suraj',
   email: 'suraj@gamail.com',
   mno: 9777985,
   fess: true
    _id: ObjectId("630704ae63256fbc59f0fe6a"),
   name: 'aftab',
email: 'aftab@gmail.com',
   mno: 78865868,
   fees: true
    _id: ObjectId("630704ae63256fbc59f0fe6b"),
   name: 'kuldeep',
   email: 'kuldeep@gmail.com',
   mno: 787885868,
   fees: true
colleges>
        Type here to search
```

For eg first document skip and find only one document Syntax

db.student.find({fess:true}).pretty().limit(1).skip(1)

Update

updateOne()=>db.collection_name.updateOne(<filiter>,<update>)
updateMany()=>db.collection_name.updateMany(<filiter>,<update>)

Question

1. how to update one particular filed in one document Only one document change the number Syntax:

db.students.updateOne({name:"shubham"},{\$set{mno:9082 361867}})

```
colleges> db.students.find().pretty()
    _id: ObjectId("630704ae63256fbc59f0fe68"),
   name: 'shubham',
email: 'shubham@gmail.com',
   mno: 9082361867,
    fees: true
    _id: ObjectId("630704ae63256fbc59f0fe69"),
   name: 'suraj',
   email: 'suraj@gamail.com',
   mno: 9777985,
   fess: true
    _id: ObjectId("630704ae63256fbc59f0fe6a"),
   name: 'aftab',
email: 'aftab@gmail.com',
mno: 78865868,
    fees: true
    _id: ObjectId("630704ae63256fbc59f0fe6b"),
   name: 'kuldeep',
email: 'kuldeep@gmail.com',
   mno: 787885868,
    fees: true
colleges> db.students.updateOne({name:"shubham"},{$set:{mno:9082361867}})
 acknowledged: true,
 insertedId: null,
 matchedCount: 1,
 modifiedCount: 0,
 upsertedCount: 0
colleges>
```

Shubham mobile number change

```
colleges> db.students.find().pretty()
    _id: ObjectId("630704ae63256fbc59f0fe68"),
   name: 'shubham',
   email: 'shubham@gmail.com',
   mno: 9082361867,
   fees: true
   id: ObjectId("630704ae63256fbc59f0fe69"),
   name: 'suraj',
   email: 'suraj@gamail.com',
   mno: 9777985,
    fess: true
 },
   id: ObjectId("630704ae63256fbc59f0fe6a"),
   name: 'aftab',
   email: 'aftab@gmail.com',
   mno: 78865868,
    fees: true
   id: ObjectId("630704ae63256fbc59f0fe6b"),
   name: 'kuldeep',
   email: 'kuldeep@gmail.com',
   mno: 787885868,
    fees: true
colleges>
```

2. How to update one particular fied in two or more document. Syntax:

```
db.students.updateOne({name:"shubham"},{$set{mno:9082}}
361867}})
```

Many

db.students.updateMany({mno:9082361867},{\$set{mno:false}})

Shubham and suraj number same

```
colleges> db.students.updateOne({name:"suraj"},{$set:{mno:9082361867}})
 acknowledged: true,
 insertedId: null,
 matchedCount: 1,
 modifiedCount: 1,
 upsertedCount: 0
colleges> db.students.find().pretty()
    _id: ObjectId("630704ae63256fbc59f0fe68"),
   name: 'shubham',
email: 'shubham@gmail.com',
   mno: 9082361867,
   fees: true
    _id: ObjectId("630704ae63256fbc59f0fe69"),
   name: 'suraj',
email: 'suraj@gamail.com',
mno: 9082361867,
   fess: true
   _id: ObjectId("630704ae63256fbc59f0fe6a"),
   name: 'aftab',
email: 'aftab@gmail.com',
   mno: 78865868,
   fees: true
   _id: ObjectId("630704ae63256fbc59f0fe6b"),
   name: 'kuldeep',
   email: 'kuldeep@gmail.com',
   mno: 787885868,
   fees: true
```

```
colleges> db.students.updateMany({mno:9082361867},{$set:{fess:false}})
 acknowledged: true,
 insertedId: null,
 matchedCount: 2,
 modifiedCount: 1,
 upsertedCount: 0
colleges> db.students.find().pretty()
    id: ObjectId("630704ae63256fbc59f0fe68"),
   name: 'shubham',
email: 'shubham@gmail.com',
   mno: 9082361867,
   fees: true,
   fess: false
    _id: ObjectId("630704ae63256fbc59f0fe69"),
   name: 'suraj',
email: 'suraj@gamail.com',
   mno: 9082361867,
   fess: false
   _id: ObjectId("630704ae63256fbc59f0fe6a"),
   name: 'aftab',
email: 'aftab@gmail.com',
   mno: 78865868,
   fees: true
    _id: ObjectId("630704ae63256fbc59f0fe6b"),
   name: 'kuldeep',
email: 'kuldeep@gmail.com',
   mno: 787885868,
    fees: true
colleges>
```

3. How to update more than one field in one document.

One document to field change by using updateOne
db.students.updateOne({name:"suraj"},{\$set{mno:90823618}
67,fess:true}})

```
colleges> db.students.updateOne({name:"suraj"},{$set:{fess:true,mno:7886778}})
 acknowledged: true,
 insertedId: null,
 matchedCount: 1,
 modifiedCount: 1,
 upsertedCount: 0
colleges> db.students.find().pretty()
    id: ObjectId("630704ae63256fbc59f0fe68"),
   name: 'shubham',
email: 'shubham@gmail.com',
   mno: 9082361867,
    fees: true,
    fess: false
    _id: ObjectId("630704ae63256fbc59f0fe69"),
   name: 'suraj',
   email: 'suraj@gamail.com',
   mno: 7886778,
    fess: true
    _id: ObjectId("630704ae63256fbc59f0fe6a"),
   name: 'aftab',
   email: 'aftab@gmail.com',
   mno: 78865868,
    fees: true
    _id: ObjectId("630704ae63256fbc59f0fe6b"),
   name: 'kuldeep',
   email: 'kuldeep@gmail.com',
   mno: 787885868,
    fees: true
colleges>
```

4. How to update more than one field in two or more document.

db.students.updateMany({fess:true},{\$set{mno:9082361867,fess:false}})

```
colleges> db.students.updateMany({fess:true},{$set:{fess:false,mno:7886778}})
 acknowledged: true,
 insertedId: null,
 matchedCount: 0,
 modifiedCount: 0,
 upsertedCount: 0
colleges> db.students.find().pretty()
    _id: ObjectId("630704ae63256fbc59f0fe68"),
    name: 'shubham',
email: 'shubham@gmail.com',
    mno: 9082361867,
    fees: true,
    fess: false
    id: ObjectId("630704ae63256fbc59f0fe69"),
    name: 'suraj',
email: 'suraj@gamail.com',
    mno: 7886778,
    fess: false
    _id: ObjectId("630704ae63256fbc59f0fe6a"),
    name: 'aftab',
email: 'aftab@gmail.com',
    mno: 78865868,
    fees: true
    _id: ObjectId("630704ae63256fbc59f0fe6b"),
    name: 'kuldeep',
email: 'kuldeep@gmail.com',
    mno: 787885868,
    fees: true
colleges>
```

Note: \$ set is compulsory

db.students.updateMany({fess:true},{\sectimeset}\text{mno:9082361867,fess:false}})

Delete

deleteOne()--> db.collection_name.deleteOne(<filter>)
deleteMany()--> db.collection_name.deleteMany(<filter>)

Question

1. How to delete one document using filter Delete one field to the document

DeleteOne

syntax

db.students.deleteOne({name:"aftab"})

```
colleges> db.students.find().pretty()
   _id: ObjectId("630704ae63256fbc59f0fe68"),
   name: 'shubham',
   email: 'shubham@gmail.com',
   mno: 9082361867,
   fees: true,
   fess: false
   _id: ObjectId("630704ae63256fbc59f0fe69"),
   name: 'suraj',
   email: 'suraj@gamail.com',
   mno: 7886778,
   fess: false
 },
   _id: ObjectId("630704ae63256fbc59f0fe6a"),
   name: 'aftab',
   email: 'aftab@gmail.com',
   mno: 78865868,
   fees: true
 },
   _id: ObjectId("630704ae63256fbc59f0fe6b"),
   name: 'kuldeep',
   email: 'kuldeep@gmail.com',
   mno: 787885868,
   fees: true
```

Delete one filed

```
colleges> db.students.deleteOne({name:"aftab"})
{ acknowledged: true, deletedCount: 1 }
colleges> db.students.find().pretty()
 {
   id: ObjectId("630704ae63256fbc59f0fe68"),
   name: 'shubham',
   email: 'shubham@gmail.com',
   mno: 9082361867,
   fees: true,
   fess: false
 },
   _id: ObjectId("630704ae63256fbc59f0fe69"),
   name: 'suraj',
   email: 'suraj@gamail.com',
   mno: 7886778,
   fess: false
 },
   id: ObjectId("630704ae63256fbc59f0fe6b"),
   name: 'kuldeep',
   email: 'kuldeep@gmail.com',
   mno: 787885868,
   fees: true
colleges>
```

2. How to delete one document without using filter Delete only one document not using filter Syntax

db.students.deleteOne({})

```
colleges> db.students.find().pretty()
   _id: ObjectId("630704ae63256fbc59f0fe6b"),
   name: 'kuldeep',
   email: 'kuldeep@gmail.com',
   mno: 787885868,
   fees: true
   _id: ObjectId("6307260e63256fbc59f0fe6c"),
   name: 'subham',
   email: 'shubham@gmail.com',
   mno: 67767637,
   fess: true
 },
   _id: ObjectId("6307260e63256fbc59f0fe6d"),
   name: 'suraj',
   email: 'suraj@gmail.com',
   mno: 89847837,
   fess: true
   _id: ObjectId("6307263d63256fbc59f0fe6e"),
   name: 'aftab',
   email: 'aftab@gmail.com',
   mno: 677687
```

Delete one document

```
colleges> db.students.deleteOne({})
{ acknowledged: true, deletedCount: 1 }
colleges> db.students.find().pretty()
 {
   _id: ObjectId("6307260e63256fbc59f0fe6c"),
   name: 'subham',
   email: 'shubham@gmail.com',
   mno: 67767637,
   fess: true
 },
   _id: ObjectId("6307260e63256fbc59f0fe6d"),
   name: 'suraj',
   email: 'suraj@gmail.com',
   mno: 89847837,
   fess: true
   id: ObjectId("6307263d63256fbc59f0fe6e"),
   name: 'aftab',
   email: 'aftab@gmail.com',
   mno: 677687
  }
colleges>
```

3. How to delete multiple document Many document delete but one filed same both the document then its delete another one document is delete

deleteMany
Syntax
db.students.deleteMany({fess:true}

4. How to delete multiple document without using filter All document delete use Syntax: db.deleteMan

Commands

- 1) View all database Show dbs
- 2) Create a new or Switch database Use dbName
- 3)view current database
- 4)delete database db.dropDatabase()
- 5)mongoDb Commands For collection Show collections
- 6)Create a collection name "student" db.createCollection("student")
- 7) delete and drop the collection

db.student.drop()

```
Mongodb commands for Rows

Show all rows in a collections
db.student.find().pretty()
```

Insert one rows

db.student.insert({name:"shubham",roll:21})

insertMany

Search

db.student.find({name:"shubham"})
Search only one when one find then stop
db.student.findOne({name:"shubham"})

Limit

db.student.find().limit(1) //only one document show

Count document

db.student.find().pretty().count()

Which document as same name eg two document same name

db.student.find({name:"shubham").count()

Sort ascending order

db.student.find()sort({roll:1}).pretty()//always run eg Screenshot

```
college> db.student.find().sort({"roll":21}).pretty()
longoInvalidArgumentError: Invalid sort direction: 21
college> db.student.find().sort({"roll":22}).pretty()
longoInvalidArgumentError: Invalid sort direction: 22
college> db.student.find().sort({"roll":1}).pretty()
    id: ObjectId("630c7f71963cfd5ad9ffd14a"),
   name: 'suraj',
    roll: 21
    _id: ObjectId("630c7f71963cfd5ad9ffd14c"),
   name: 'shubham',
   roll: 22
    _id: ObjectId("630c7f71963cfd5ad9ffd14d"),
   name: 'vikas',
   roll: 23
    _id: ObjectId("630c7f71963cfd5ad9ffd14b"),
   name: 'karan',
    roll: 24
college>
```

Update

db.students.updateOne({name:"suraj"},{\$set{mno:9082} 361867,fess:true}})

Increment update

db.student.update({name:"shubham"},{\$inc:{"roll":2}})
//Shubhma roll no 22 and outpute is 24

Rename update

db.student.update({name:"shubham"},{\$rename:{"roll"
:"not declared"}})
Imp:only change filed not value

Remove

db.student.remove({name:"suraj"})

Less

db.student.find({"roll":{\$lt:23}})

Greater then

db.student.find({"roll":{\$gt:23}})