#Creating a New database:

Code:

mongod --version

```
C:\Users\Admin>mongod --version
db version v6.0.13
Build Info: {
    "version": "6.0.13",
    "gitVersion": "3b13907f9bdf6bd3264d67140d6c215d51bbd20c",
    "modules": [],
    "allocator": "tcmalloc",
    "environment": {
        "distmod": "windows",
        "distarch": "x86_64",
        "target_arch": "x86_64"
    }
}
```

mongosh

```
C:\Users\Admin>mongosh
Current Mongosh Log ID: 6780ea0e36336b93975d893f
Connecting to:          mongodb://127.0.0.1:27017/?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+2
.1.4
Using MongoDB:          6.0.13
Using Mongosh:          2.1.4
mongosh 2.2.0 is available for download: https://www.mongodb.com/try/download/shell

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

------
   The server generated these startup warnings when booting
   2024-12-19T10:52:33.605+05:30: Access control is not enabled for the database. Read and write access to data and conf
iguration is unrestricted
------
```

#Create a database name userdb

use userdb;

```
test> use userdb;
```

```
test> use userdb;
switched to db userdb
```

#Creating a New Collection:

db.createCollection("users")

```
userdb> db.createCollection("users")
{ ok: 1 }
```

#Create Operation

1.insertOne():

db.users.insertOne({

name:"Angela",

age:27,

});

```
userdb> db.users.insertOne({
... name:"Angela",
... age:27,
... });
```

Output:

```
{
  acknowledged: true,
  insertedId: ObjectId('6780ece736336b93975d8940')
}
```

2.insertMany()

db.users.insertMany([{ name:"Angela", age:27, }, { name:"Dwight", age:30, }, {name:"Jim", age:29,}]);

```
userdb> db.users.insertMany([ { name:"Angela", age:27, }, { name:"Dwight", age:30, }, {name:"Jim", age:29,}]);
```

Output:

```
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('6780ee8936336b93975d8941'),
    '1': ObjectId('6780ee8936336b93975d8942'),
    '2': ObjectId('6780ee8936336b93975d8943')
  }
}
```

#Read Operations

1.find()

db.users.find()

```
userdb> db.users.find()
```

Output:

```
[
  {
    _id: ObjectId('6780ece736336b93975d8940'),
    name: 'Angela',
    age: 27
  },
  {
    _id: ObjectId('6780ee8936336b93975d8941'),
    name: 'Angela',
    age: 27
  },
  {
    _id: ObjectId('6780ee8936336b93975d8942'),
    name: 'Dwight',
    age: 30
  },
  { _id: ObjectId('6780ee8936336b93975d8943'), name: 'Jim', age: 29 }
]
```

db.users.find({age: {$gt:29}}, {name:1, age:1 })

```
userdb> db.users.find({age: {$gt:29}}, {name:1, age:1 })
```

Output:

```
[
  {
    _id: ObjectId('6780ee8936336b93975d8942'),
    name: 'Dwight',
    age: 30
  }
]
```

2.findOne()

db.users.findOne({name:"Jim"})

```
userdb> db.users.findOne({name:"Jim"})
```

Output:

```
{ _id: ObjectId('6780ee8936336b93975d8943'), name: 'Jim', age: 29 }
```

#Update Operations

1.updateOne()

db.users.updateOne({name:"Angela"},{$set:{email:"angela@gmail.com"} })

```
userdb> db.users.updateOne({name:"Angela"},{$set:{email:"angela@gmail.com"} })
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

db.users.findOne({name:"Angela"})

```
userdb> db.users.findOne({name:"Angela"})
{
  _id: ObjectId('6780ece736336b93975d8940'),
  name: 'Angela',
  age: 27,
  email: 'angela@gmail.com'
}
```

2.updateMany

db.users.updateMany({ age:{$lt: 30}}, {$set: {status:"active"} })

```
userdb> db.users.updateMany({ age:{$lt: 30}}, {$set: {status:"active"} })
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 3,
  modifiedCount: 3,
  upsertedCount: 0
}
```

db.users.find()

```
userdb> db.users.find()
[
  {
    _id: ObjectId('6780ece736336b93975d8940'),
    name: 'Angela',
    age: 27,
    email: 'angela@gmail.com',
    status: 'active'
  },
  {
    _id: ObjectId('6780ee8936336b93975d8941'),
    name: 'Angela',
    age: 27,
    status: 'active'
  },
  {
    _id: ObjectId('6780ee8936336b93975d8942'),
    name: 'Dwight',
    age: 30
  },
  {
    _id: ObjectId('6780ee8936336b93975d8943'),
    name: 'Jim',
    age: 29,
    status: 'active'
  }
]
```

#Delete Operations

1.deleteOne()

db.users.deleteOne({name:"Angela"})

```
userdb> db.users.deleteOne({name:"Angela"})
{ acknowledged: true, deletedCount: 1 }
```

db.users.find()

```
userdb> db.users.find()
[
  {
    _id: ObjectId('6780ee8936336b93975d8941'),
    name: 'Angela',
    age: 27,
    status: 'active'
  },
  {
    _id: ObjectId('6780ee8936336b93975d8942'),
    name: 'Dwight',
    age: 30
  },
  {
    _id: ObjectId('6780ee8936336b93975d8943'),
    name: 'Jim',
    age: 29,
    status: 'active'
  }
]
```

2.deleteMany()

db.users.deleteMany({age:{$lt:30} })

```
userdb> db.users.deleteMany({age:{$lt:30} })
{ acknowledged: true, deletedCount: 2 }
```

```
userdb> db.users.deleteMany({age:{$lt:30} })
{ acknowledged: true, deletedCount: 2 }
userdb> db.users.find()
[
  {
    _id: ObjectId('6780ee8936336b93975d8942'),
    name: 'Dwight',
    age: 30
  }
]
```

#drop()

db.users.drop()

```
userdb> db.users.drop()
true
```