

# MongoDB

## Create or use database:

use students

```
> use students
switched to db students
```

## Delete database:

db.dropDatabase()

```
> db.dropDatabase()
{ "ok" : 1 }
```

## Create a collection:

db.createCollection("students")

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

## View all collections:

show collections

```
> show collections
students
```

## Insert document in collection:

db.students.insert({name:"John",age:22,branch:"CE",cgpa:7.8})

```
> db.students.insert({name:"John",age:22,branch:"CE",cgpa:7.8})
WriteResult({ "nInserted" : 1 })
```

## Insert multiple documents:

db.students.insert([{name:"Ben",age:20,branch:"IT",cgpa:8.6},{name:"Mark",age:18,branch:"ME",cgpa:8.1},{name:"Adam",age:19,branch:"CE",cgpa:9.1}])

```
> db.students.insert([{name:"Ben",age:20,branch:"IT",cgpa:8.6},{name:"Mark",age:18,branch:"ME",cgpa:8.1},{name:"Adam",age:19,branch:"CE",cgpa:9.1}])
BulkWriteResult({
  "writeErrors" : [ ],
  "writeConcernErrors" : [ ],
  "nInserted" : 3,
  "nUpserted" : 0,
  "nMatched" : 0,
  "nModified" : 0,
  "nRemoved" : 0,
  "upserted" : [ ]
})
```

### Find document:

db.movie.find().pretty()

```
> db.students.find().pretty()
{
  "_id" : ObjectId("61f2d911ae8ba7f0166823a8"),
  "name" : "John",
  "age" : 22,
  "branch" : "CE",
  "cgpa" : 7.8
}
{
  "_id" : ObjectId("61f2d9abae8ba7f0166823a9"),
  "name" : "Ben",
  "age" : 20,
  "branch" : "IT",
  "cgpa" : 8.6
}
{
  "_id" : ObjectId("61f2d9abae8ba7f0166823aa"),
  "name" : "Mark",
  "age" : 18,
  "branch" : "ME",
  "cgpa" : 8.1
}
{
  "_id" : ObjectId("61f2d9abae8ba7f0166823ab"),
  "name" : "Adam",
  "age" : 19,
  "branch" : "CE",
  "cgpa" : 9.1
}
```

db.students.find({cgpa:{\$gte:8.0}})

```
> db.students.find({cgpa:{$gte:8.0}})
{ "_id" : ObjectId("61f2d9abae8ba7f0166823a9"), "name" : "Ben", "age" : 20, "branch" : "IT", "cgpa" : 8.6 }
{ "_id" : ObjectId("61f2d9abae8ba7f0166823aa"), "name" : "Mark", "age" : 18, "branch" : "ME", "cgpa" : 8.1 }
{ "_id" : ObjectId("61f2d9abae8ba7f0166823ab"), "name" : "Adam", "age" : 19, "branch" : "CE", "cgpa" : 9.1 }
{ "_id" : ObjectId("61f2da39ae8ba7f0166823ae"), "name" : "Max", "age" : 19, "branch" : "IT", "cgpa" : 8.9 }
```

db.students.findOne({cgpa:{\$gte:8.0}})

```
> db.students.findOne({cgpa:{$gte:8.0}})
{
  "_id" : ObjectId("61f2d9abae8ba7f0166823a9"),
  "name" : "Ben",
  "age" : 20,
  "branch" : "IT",
  "cgpa" : 8.6
}
```

### Update document:

```
db.students.update({name:"Adam"},{$set:{age:20}})
```

```
> db.students.update({name:"Adam"},{$set:{age:20}})
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.students.find({name:"Adam"})
{ "_id" : ObjectId("61f2d9abae8ba7f0166823ab"), "name" : "Adam", "age" : 20, "branch" : "CE", "cgpa" : 9.1 }
```

```
db.students.updateMany({cgpa:{$gte:8.0,$lt:9.0}},{$set:{age:23}})
```

```
> db.students.updateMany({cgpa:{$gte:8.0,$lt:9.0}},{$set:{age:23}})
{ "acknowledged" : true, "matchedCount" : 3, "modifiedCount" : 3 }
> db.students.find({cgpa:{$gte:8.0,$lt:9.0}})
{ "_id" : ObjectId("61f2d9abae8ba7f0166823a9"), "name" : "Ben", "age" : 23, "branch" : "IT", "cgpa" : 8.6 }
{ "_id" : ObjectId("61f2d9abae8ba7f0166823aa"), "name" : "Mark", "age" : 23, "branch" : "ME", "cgpa" : 8.1 }
{ "_id" : ObjectId("61f2da39ae8ba7f0166823ae"), "name" : "Max", "age" : 23, "branch" : "IT", "cgpa" : 8.9 }
```

### Delete document:

```
db.students.remove({branch:"ME"})
```

```
> db.students.remove({branch:"ME"})
WriteResult({ "nRemoved" : 1 })
```

### Limit:

```
db.students.find({cgpa:{$gt:7.0}}).limit(2)
```

```
> db.students.find({cgpa:{$gt:7.0}}).limit(2)
{ "_id" : ObjectId("61f2d911ae8ba7f0166823a8"), "name" : "John", "age" : 22, "branch" : "CE", "cgpa" : 7.8 }
{ "_id" : ObjectId("61f2d9abae8ba7f0166823a9"), "name" : "Ben", "age" : 23, "branch" : "IT", "cgpa" : 8.6 }
```

### Skip:

```
db.students.find({cgpa:{$gt:7.0}}).limit(3).skip(1)
```

```
> db.students.find({cgpa:{$gt:7.0}}).limit(3).skip(1)
{ "_id" : ObjectId("61f2d9abae8ba7f0166823a9"), "name" : "Ben", "age" : 23, "branch" : "IT", "cgpa" : 8.6 }
{ "id" : ObjectId("61f2d9abae8ba7f0166823ab"), "name" : "Adam", "age" : 20, "branch" : "CE", "cgpa" : 9.1 }
{ "_id" : ObjectId("61f2da39ae8ba7f0166823ad"), "name" : "Lily", "age" : 20, "branch" : "AE", "cgpa" : 7.5 }
```

### Sort:

```
db.students.find().sort({cgpa:-1})
```

```
> db.students.find().sort({cgpa:-1})
{ "_id" : ObjectId("61f2d9abae8ba7f0166823ab"), "name" : "Adam", "age" : 20, "branch" : "CE", "cgpa" : 9.1 }
{ "_id" : ObjectId("61f2da39ae8ba7f0166823ae"), "name" : "Max", "age" : 23, "branch" : "IT", "cgpa" : 8.9 }
{ "_id" : ObjectId("61f2d9abae8ba7f0166823a9"), "name" : "Ben", "age" : 23, "branch" : "IT", "cgpa" : 8.6 }
{ "_id" : ObjectId("61f2d911ae8ba7f0166823a8"), "name" : "John", "age" : 22, "branch" : "CE", "cgpa" : 7.8 }
{ "_id" : ObjectId("61f2da39ae8ba7f0166823ad"), "name" : "Lily", "age" : 20, "branch" : "AE", "cgpa" : 7.5 }
```

```
db.students.find().sort({name:1})
```

```
> db.students.find().sort({name:1})
{ "_id" : ObjectId("61f2d9abae8ba7f0166823ab"), "name" : "Adam", "age" : 20, "branch" : "CE", "cgpa" : 9.1 }
{ "_id" : ObjectId("61f2d9abae8ba7f0166823a9"), "name" : "Ben", "age" : 23, "branch" : "IT", "cgpa" : 8.6 }
{ "_id" : ObjectId("61f2d911ae8ba7f0166823a8"), "name" : "John", "age" : 22, "branch" : "CE", "cgpa" : 7.8 }
{ "_id" : ObjectId("61f2da39ae8ba7f0166823ad"), "name" : "Lily", "age" : 20, "branch" : "AE", "cgpa" : 7.5 }
{ "_id" : ObjectId("61f2da39ae8ba7f0166823ae"), "name" : "Max", "age" : 23, "branch" : "IT", "cgpa" : 8.9 }
```

## Regex:

db.students.find({name:{\$regex:"[BM].\*"}})

```
> db.students.find({name:{$regex:"[BM].*"}})
{ "_id" : ObjectId("61f2d9abae8ba7f0166823a9"), "name" : "Ben", "age" : 23, "branch" : "IT", "cgpa" : 8.6 }
{ "_id" : ObjectId("61f2da39ae8ba7f0166823ae"), "name" : "Max", "age" : 23, "branch" : "IT", "cgpa" : 8.9 }
```