Create database

```
test> use mca23

switched to db mca23
```

Create collection

```
mca23> db.createCollection("BookStore")
```

Insert into collection

```
mca23> db.BookStore.insertOne({name: "Alchemist", author: "Paulo Cohelo",
price: 1500})

{

  acknowledged: true,

  insertedId: ObjectId("6582eec5a6d5a61e73164851")

}


mca23> db.BookStore.insertMany([

... {name: "Database Concepts", author: "Charles Martin", price: 500},

... {name: "Software Concepts", author: "Peter John", price: 500},

... {name: "Computer Science", author: "Philip Ben", price: 500}

... ])

{

  acknowledged: true,

  insertedIds: {

    '0': ObjectId("6582ef6ea6d5a61e73164852"),

    '1': ObjectId("6582ef6ea6d5a61e73164853"),

    '2': ObjectId("6582ef6ea6d5a61e73164854")

  }

}
```

Create Index

```
mca23> db.BookStore.createIndex({name: 1})

name_1
```

Drop collection

```
mca23> db.BookStore.drop()

true
```

Finding collection

```
mca23> db.BookStore.find().pretty()
[
  {
    _id: ObjectId("6582eec5a6d5a61e73164851"),
    name: 'Alchemist',
    author: 'Paulo Cohelo',
    price: 1500
  },
  {
    _id: ObjectId("6582ef6ea6d5a61e73164852"),
    name: 'Database Concepts',
    author: 'Charles Martin',
    price: 500
  },
  {
    _id: ObjectId("6582ef6ea6d5a61e73164853"),
    name: 'Software Concepts',
    author: 'Peter John',
    price: 500
  },
  {
    _id: ObjectId("6582ef6ea6d5a61e73164854"),
    name: 'Computer Science',
    author: 'Philip Ben',
    price: 500
  }
]
```

Delete documents

```
mca23> db.BookStore.deleteOne({name: "Computer Science"})
{ acknowledged: true, deletedCount: 1 }


mca23> db.BookStore.deleteMany({price: 800})
{ acknowledged: true, deletedCount: 2 }Drop database
```

Drop database

```
mca23> db.dropDatabase()
{ ok: 1, dropped: 'mca23' }
```

Find collection with condition

```
mca23> db.BookStore.find({author: "Paulo Cohelo"}).pretty()
[
  {
    _id: ObjectId("6582f010a6d5a61e73164858"),
    name: 'Alchemist',
    author: 'Paulo Cohelo',
    price: 1500
  }
]
mca23> db.BookStore.find({price: {$lt: 1000}})
[
  {
    _id: ObjectId("6582f013a6d5a61e73164859"),
    name: 'Database Concepts',
    author: 'Charles Martin',
    price: 500
  },
  {
    _id: ObjectId("6582f013a6d5a61e7316485a"),
    name: 'Software Concepts',
    author: 'Peter John',
    price: 500
  },
  {
    _id: ObjectId("6582f013a6d5a61e7316485b"),
    name: 'Computer Science',
    author: 'Philip Ben',
    price: 500
  }
]
```

```
mca23> db.BookStore.find({price: {$gt: 1000}})
[
  {
    _id: ObjectId("6582f010a6d5a61e73164858"),
    name: 'Alchemist',
    author: 'Paulo Cohelo',
    price: 1500
  }
]

mca23> db.BookStore.find({author: {$ne: "Paulo Cohelo"}})
[
  {
    _id: ObjectId("6582f013a6d5a61e73164859"),
    name: 'Database Concepts',
    author: 'Charles Martin',
    price: 500
  },
  {
    _id: ObjectId("6582f013a6d5a61e7316485a"),
    name: 'Software Concepts',
    author: 'Peter John',
    price: 500
  },
  {
    _id: ObjectId("6582f013a6d5a61e7316485b"),
    name: 'Computer Science',
    author: 'Philip Ben',
    price: 500
  }
]
```

Finding collection with projection

```
mca23> db.BookStore.find({}, {_id: 0, author: 1}).pretty()
[
  { author: 'Paulo Cohelo' },
  { author: 'Charles Martin' },
  { author: 'Peter John' },
  { author: 'Philip Ben' }
]


mca23> db.BookStore.find({}, {_id: 0, name: 1, price: 1}).pretty()
[
  { name: 'Alchemist', price: 1500 },
  { name: 'Database Concepts', price: 500 },
  { name: 'Software Concepts', price: 500 },
  { name: 'Computer Science', price: 500 }
]


mca23> db.BookStore.find({price: {$lt: 1000}}, {_id: 0, name: 1, price:
1}).pretty()
[
  { name: 'Database Concepts', price: 500 },
  { name: 'Software Concepts', price: 500 },
  { name: 'Computer Science', price: 500 }
]
```

Update document

```
mca23> db.BookStore.updateOne(
... {name: "Alchemist"}, {$set: {name: "The Alchemist"}}
... )
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}


mca23> db.BookStore.updateMany( { price: 500}, { $set: { price: 800} } )
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 3,
  modifiedCount: 3,
  upsertedCount: 0
}
```

Sorting documents

```
mca23> db.BookStore.find().sort({name: 1})
[
  {
    _id: ObjectId("6582f3f7a6d5a61e7316485f"),
    name: 'Computer Science',
    author: 'Philip Ben',
    price: 800
  },
  {
    _id: ObjectId("6582f3f7a6d5a61e7316485d"),
    name: 'Database Concepts',
    author: 'Charles Martin',
    price: 800
  },
  {
    _id: ObjectId("6582f3f7a6d5a61e7316485e"),
    name: 'Software Concepts',
    author: 'Peter John',
    price: 800
  },
  {
    _id: ObjectId("6582f3e7a6d5a61e7316485c"),
    name: 'The Alchemist',
    author: 'Paulo Cohelo',
    price: 1500
  }
]
```

```
mca23> db.BookStore.find().sort({name: -1})
[
  {
    _id: ObjectId("6582f3e7a6d5a61e7316485c"),
    name: 'The Alchemist',
    author: 'Paulo Cohelo',
    price: 1500
  },
  {
    _id: ObjectId("6582f3f7a6d5a61e7316485e"),
    name: 'Software Concepts',
    author: 'Peter John',
    price: 800
  },
  {
    _id: ObjectId("6582f3f7a6d5a61e7316485d"),
    name: 'Database Concepts',
    author: 'Charles Martin',
    price: 800
  },
  {
    _id: ObjectId("6582f3f7a6d5a61e7316485f"),
    name: 'Computer Science',
    author: 'Philip Ben',
    price: 800
  }
]
```

Backup

```
Mongodump
```

Restore

```
Mongorestore –db mca23 –drop /home/mca23…/dump/db
```