first get 3 cmd's

1. mongod   <-mongo db, server start run
2. mongo   <-
3. mongo   <-open mongo shell

```
> show dbs;
admin    0.000GB
config   0.000GB
local    0.000GB
```
show databases available

```
> use test1
switched to db test1
```
create new databases, that auto metrically switch and use.

```
> db.createUser(
...    {
...      user: "manjitha",
...      pwd: "1995",
...      roles: [ "readWrite", "dbAdmin" ]
...    }
... )
```
create object user

```
> db.createCollection('Course');
{ "ok" : 1 }
```
create collection, like MySQL table.

```
> use Coustomers;
switched to db Coustomers
```
create new databases Coustomer and switch it and use

```
> db
Coustomers
```
check currentusing database

```
> db.createUser(
...    {
...        user: "manjitha",
...        pwd: "1995",
...        roles: [ "readWrite", "dbAdmin" ]
...    }
... )
Successfully added user: { "user" : "manjitha", "roles" : [ "readWrite", "dbAdmin" ] }
```

create object one of user

```
> db.createCollection('customer');
{ "ok" : 1 }
```

create collection customer

```
> db.customer.insert({firstName:"manjitha",lastName:"teshara"});
WriteResult({ "nInserted" : 1 })
```

insert into customer to customer collection

```
> db.customer.find();
{ "_id" : ObjectId("5ba9d90c25990a4d78034c12"), "firstName" : "manjitha", "lastName" : "teshara" }
> db.customer.insert({firstName:"dinuka",lastName:"kasun"});
WriteResult({ "nInserted" : 1 })
> db.customer.find();
{ "_id" : ObjectId("5ba9d90c25990a4d78034c12"), "firstName" : "manjitha", "lastName" : "teshara" }
{ "_id" : ObjectId("5ba9d97625990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun" }
> db.customer.insert({firstName:"ishan",lastName:"vinod",phone:"0712112582585"});
WriteResult({ "nInserted" : 1 })
> db.customer.find();
{ "_id" : ObjectId("5ba9d90c25990a4d78034c12"), "firstName" : "manjitha", "lastName" : "teshara" }
{ "_id" : ObjectId("5ba9d97625990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun" }
{ "_id" : ObjectId("5ba9d9d425990a4d78034c14"), "firstName" : "ishan", "lastName" : "vinod", "phone" : "0712112582585" }
> db.customer.find();
{ "_id" : ObjectId("5ba9d90c25990a4d78034c12"), "firstName" : "manjitha", "lastName" : "teshara" }
{ "_id" : ObjectId("5ba9d97625990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun" }
{ "_id" : ObjectId("5ba9d9d425990a4d78034c14"), "firstName" : "ishan", "lastName" : "vinod", "phone" : "0712112582585" }
```

```
> db.customer.update({firstName:"manjitha"},{firstName:"manjitha",lastName:"Teshara",phone:"0723197339"});
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.customer.find();
{ "_id" : ObjectId("5ba9d90c25990a4d78034c12"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
{ "_id" : ObjectId("5ba9d97625990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun" }
{ "_id" : ObjectId("5ba9d9d425990a4d78034c14"), "firstName" : "ishan", "lastName" : "vinod", "phone" : "0712112582585" }
```

update customer

```
> db.customer.update({firstName:"manjitha"},{$set:{age:20}});
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.customer.find();
{ "_id" : ObjectId("5ba9d90c25990a4d78034c12"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339", "age" : 20 }
{ "_id" : ObjectId("5ba9d97625990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun" }
{ "_id" : ObjectId("5ba9d9d425990a4d78034c14"), "firstName" : "ishan", "lastName" : "vinod", "phone" : "0712112582585" }
```

$set using

```
> db.customer.update({firstName:"manjitha"},{$inc:{age:1}});
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.customer.find();
{ "_id" : ObjectId("5ba9d90c25990a4d78034c12"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339", "age" : 21 }
{ "_id" : ObjectId("5ba9d97625990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun" }
{ "_id" : ObjectId("5ba9d9d425990a4d78034c14"), "firstName" : "ishan", "lastName" : "vinod", "phone" : "0712112582585" }
```

$inc using

```
> db.customer.update({firstName:"manjitha"},{$unset:{age:1}});
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
> db.customer.find();
{ "_id" : ObjectId("5ba9d90c25990a4d78034c12"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
{ "_id" : ObjectId("5ba9d97625990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun" }
{ "_id" : ObjectId("5ba9d9d425990a4d78034c14"), "firstName" : "ishan", "lastName" : "vinod", "phone" : "0712112582585" }
>
```
remove ,as unset field age

```
> db.customer.update({firstName:"teran"},{firstName:"manjitha",lastName:"Teshara",phone:"0723197339"});
WriteResult({ "nMatched" : 0, "nUpserted" : 0, "nModified" : 0 })
> db.customer.find();
{ "_id" : ObjectId("5ba9d90c25990a4d78034c12"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
{ "_id" : ObjectId("5ba9d97625990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun" }
{ "_id" : ObjectId("5ba9d9d425990a4d78034c14"), "firstName" : "ishan", "lastName" : "vinod", "phone" : "0712112582585" }
>
>
> db.customer.update({firstName:"teran"},{firstName:"manjitha",lastName:"Teshara",phone:"0723197339"},{upsert:true});
WriteResult({
        "nMatched" : 0,
        "nUpserted" : 1,
        "nModified" : 0,
        "_id" : ObjectId("5ba9e58b05841ce66135c1b0")
})
> db.customer.find();
{ "_id" : ObjectId("5ba9d90c25990a4d78034c12"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
{ "_id" : ObjectId("5ba9d97625990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun" }
{ "_id" : ObjectId("5ba9d9d425990a4d78034c14"), "firstName" : "ishan", "lastName" : "vinod", "phone" : "0712112582585" }
{ "_id" : ObjectId("5ba9e58b05841ce66135c1b0"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
>
```

If some time searching key not in collection we can use {upsert:true} for insert given value to collection

```
> db.customer.find();
{ "_id" : ObjectId("5ba9d90c25990a4d78034c12"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
{ "_id" : ObjectId("5ba9d97625990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun" }
{ "_id" : ObjectId("5ba9d9d425990a4d78034c14"), "firstName" : "ishan", "lastName" : "vinod", "phone" : "0712112582585" }
{ "_id" : ObjectId("5ba9e58b05841ce66135c1b0"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
> db.customer.remove(firstName:"isha
2018-09-25T13:14:32.831+0530 E QUERY    [thread1] SyntaxError: missing ) after argument list @(shell):1:28
>
>
> db.customer.remove(firstName:"ishan");
2018-09-25T13:14:48.533+0530 E QUERY    [thread1] SyntaxError: missing ) after argument list @(shell):1:28
> db.customer.remove({firstName:"ishan"});
WriteResult({ "nRemoved" : 1 })
> db.customer.find();
{ "_id" : ObjectId("5ba9d90c25990a4d78034c12"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
{ "_id" : ObjectId("5ba9d97625990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun" }
{ "_id" : ObjectId("5ba9e58b05841ce66135c1b0"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
>
```

Remove customer from collection.

```
> db.customer.find();
{ "_id" : ObjectId("5ba9d90c25990a4d78034c12"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
{ "_id" : ObjectId("5ba9d97615990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun" }
{ "_id" : ObjectId("5ba9e58b05841ce66135c1b0"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
```

.find() can get all data in collection linke select*fom tableName in sql

```
> db.customer.find({firstName:"manjitha"});
{ "_id" : ObjectId("5ba9d90c25990a4d78034c12"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
{ "_id" : ObjectId("5ba9e58b05841ce66135c1b0"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
>
```

.find(argument) get attribute form collection like "select * from tableName where firstName="manjitha";"

in sql

```
> db.customer.find();
{ "_id" : ObjectId("5ba9d90c25990a4d78034c12"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
{ "_id" : ObjectId("5ba9d97615990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun" }
{ "_id" : ObjectId("5ba9e58b05841ce66135c1b0"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }

> db.customer.find({$or:[{firstName:"manjitha"},{firstName:"dinuka"}]});
{ "_id" : ObjectId("5ba9d90c25990a4d78034c12"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
{ "_id" : ObjectId("5ba9d97615990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun" }
{ "_id" : ObjectId("5ba9e58b05841ce66135c1b0"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
>
```

Or operater in mongodb ,like select * from tableName where firstName="manjitha" or firstName="dinuka";

```
>
> db.customer.remove({firstName:"manjitha"},{justOne:true});
WriteResult({ "nRemoved" : 1 })
> db.customer.find();
{ "_id" : ObjectId("5ba9d97625990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun" }
{ "_id" : ObjectId("5ba9e58b05841ce66135c1b0"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339" }
> "
```

One elemet remove in same key

```
> db.customer.find();
{ "_id" : ObjectId("5ba9d97625990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun", "age" : 23 }
{ "_id" : ObjectId("5ba9e58b05841ce66135c1b0"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339", "age" : 18 }
{ "_id" : ObjectId("5ba9ed4625990a4d78034c15"), "firstName" : "asitha", "phone" : "0712582585", "age" : 35 }
{ "_id" : ObjectId("5ba9ed6d25990a4d78034c16"), "firstName" : "pasindu", "phone" : "0785158158", "age" : 30 }

> db.customer.find({age:{$lt:25}});
{ "_id" : ObjectId("5ba9d97625990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun", "age" : 23 }
{ "_id" : ObjectId("5ba9e58b05841ce66135c1b0"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339", "age" : 18 }
>
```

$lt   this mean less than.

$lte   this is less than or equal

```
> db.customer.find().sort({firstName:1});
{ "_id" : ObjectId("5ba9ed4625990a4d78034c15"), "firstName" : "asitha", "phone" : "0712582585", "age" : 35 }
{ "_id" : ObjectId("5ba9d97625990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun", "age" : 23 }
{ "_id" : ObjectId("5ba9e58b05841ce66135c1b0"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339", "age" : 18 }
{ "_id" : ObjectId("5ba9ed6d25990a4d78034c16"), "firstName" : "pasindu", "phone" : "0785158158", "age" : 30 }
>
```

Sort by asender order firstName

```
>
> db.customer.find().sort({firstName:-1});
{ "_id" : ObjectId("5ba9ed6d25990a4d78034c16"), "firstName" : "pasindu", "phone" : "0785158158", "age" : 30 }
{ "_id" : ObjectId("5ba9e58b05841ce66135c1b0"), "firstName" : "manjitha", "lastName" : "Teshara", "phone" : "0723197339", "age" : 18 }
{ "_id" : ObjectId("5ba9d97625990a4d78034c13"), "firstName" : "dinuka", "lastName" : "kasun", "age" : 23 }
{ "_id" : ObjectId("5ba9ed4625990a4d78034c15"), "firstName" : "asitha", "phone" : "0712582585", "age" : 35 }
> ■
```

Sort by desender order by firstName ,just need change 1 to -1 in   .sort({firstName:-1})

We can use mongoose for maina tain database schema visibaly