

->To list the database:

```
> show dbs
admin    0.000GB
config   0.000GB
customer 0.000GB
customers 0.000GB
local    0.000GB
```

->To create the database or use the existing database

```
use customer
switched to db customer
```

->To create collection

```
> db.createCollection("test1")
{ "ok" : 1 }
```

->Insert into collection

```
> db.createCollection("test1")
{ "ok" : 1 }
```

->To list the details of the collection

```
> db.test1.find().pretty()
{
  "_id" : ObjectId("606d2b22a87e33b6a150b124"),
  "fname" : "Bharath",
  "lname" : "Kumar",
  "age" : 20,
  "email" : "kumar@gmail.com",
  "phone_no" : 9494035944,
  "experience" : 4
}
```

To insert Many documents

```
> db.test1.insertMany([
...   "fname": "Divine ",
...   "lname": "Comedy",
```

```
...   "age": 30,
...   "email": "abc@gmail.com",
...   "phone": 1234556,
...   "experience": 5
... },
...
... {
...   "fname": "abc ",
...   "lname": "vbn",
...   "age": 34,
...   "email": "aqwe@gmail.com",
...   "phone": 43214556,
...   "experience": 10
... },
... {
...   "fname": "dsaa ",
...   "lname": "Comedy",
...   "age": 30,
...   "email": "abuu@gmail.com",
...   "phone": 17892427846,
...   "experience": 5
... },
... {
...   fname: "reww ",
...   lname: "utrjufh",
...   age: 34,
...   email: "awewc@gmail.com",
...   phone: 123908756,
...   experience: 12
... },
... {
...   fname: "Lord ",
...   lname: "Montwell",
...   age: 24,
...   email: "miont@gmail.com",
...   phone: 1234559876,
...   experience: 2
... },
...
... {
...   fname: "bharat ",
...   lname: "rai",
...   age: 27,
...   email: "bahart@gmail.com",
...   phone: 943214556,
...   experience: 9
... },
... {
...   fname: "pragg ",
...   lname: "ray",
...   age: 28,
...   email: "pragg@gmail.com",
```

```

...   phone: 92427846,
...   experience: 1
... },
... {
...   fname: "lorem",
...   lname: "epsum",
...   age: 40,
...   email: "loremk@gmail.com",
...   phone: 7883908756,
...   experience: 5
... }])
{
  "acknowledged" : true,
  "insertedIds" : [
    ObjectId("606d2e6324ae776f525c828e"),
    ObjectId("606d2e6324ae776f525c828f"),
    ObjectId("606d2e6324ae776f525c8290"),
    ObjectId("606d2e6324ae776f525c8291"),
    ObjectId("606d2e6324ae776f525c8292"),
    ObjectId("606d2e6324ae776f525c8293"),
    ObjectId("606d2e6324ae776f525c8294"),
    ObjectId("606d2e6324ae776f525c8295")
  ]
}

```

Read operation

```

> db.test1.find().pretty()
{
  "_id" : ObjectId("606d2b22a87e33b6a150b124"),
  "fname" : "Bharath",
  "lname" : "Kumar",
  "age" : 20,
  "email" : "kumar@gmail.com",
  "phone_no" : 9494035944,
  "experience" : 4
}
{
  "_id" : ObjectId("606d2e6324ae776f525c828e"),
  "fname" : "Divine ",
  "lname" : "Comedy",
  "age" : 30,
  "email" : "abc@gmail.com",
  "phone" : 1234556,
  "experience" : 5
}

```

```
{
  "_id" : ObjectId("606d2e6324ae776f525c828f"),
  "fname" : "abc ",
  "lname" : "vbn",
  "age" : 34,
  "email" : "aqwe@gmail.com",
  "phone" : 43214556,
  "experience" : 10
}
{
  "_id" : ObjectId("606d2e6324ae776f525c8290"),
  "fname" : "dsaa ",
  "lname" : "Comedy",
  "age" : 30,
  "email" : "abuu@gmail.com",
  "phone" : 17892427846,
  "experience" : 5
}
{
  "_id" : ObjectId("606d2e6324ae776f525c8291"),
  "fname" : "rewwe ",
  "lname" : "utrjufh",
  "age" : 34,
  "email" : "awewc@gmail.com",
  "phone" : 123908756,
  "experience" : 12
}
{
  "_id" : ObjectId("606d2e6324ae776f525c8292"),
  "fname" : "Lord ",
  "lname" : "Montwell",
  "age" : 24,
  "email" : "miont@gmail.com",
  "phone" : 1234559876,
  "experience" : 2
}
{
  "_id" : ObjectId("606d2e6324ae776f525c8293"),
  "fname" : "bharat ",
  "lname" : "rai",
  "age" : 27,
  "email" : "bahart@gmail.com",
  "phone" : 943214556,
  "experience" : 9
}
{
  "_id" : ObjectId("606d2e6324ae776f525c8294"),
  "fname" : "pragg ",
  "lname" : "ray",
  "age" : 28,
  "email" : "pragg@gmail.com",
  "phone" : 92427846,
}
```

```

    "experience" : 1
  }
  {
    "_id" : ObjectId("606d2e6324ae776f525c8295"),
    "fname" : "lorem",
    "lname" : "epsum",
    "age" : 40,
    "email" : "loremk@gmail.com",
    "phone" : 7883908756,
    "experience" : 5
  }
}

```

Inserting through save method>

```
db.test1.save({_id:ObjectId("606d2e6324ae776f525c8295"),fname:"chinnu"})
```

```
WriteResult({ "nMatched" : 1, "nUpserted" : 0, "nModified" : 1 })
```

```
> db.test1.find().pretty()
```

```

{
  "_id" : ObjectId("606d2b22a87e33b6a150b124"),
  "fname" : "Bharath",
  "lname" : "Kumar",
  "age" : 20,
  "email" : "kumar@gmail.com",
  "phone_no" : 9494035944,
  "experience" : 4
}
{
  "_id" : ObjectId("606d2e6324ae776f525c828e"),
  "fname" : "Divine ",
  "lname" : "Comedy",
  "age" : 30,
  "email" : "abc@gmail.com",
  "phone" : 1234556,
  "experience" : 5
}
{
  "_id" : ObjectId("606d2e6324ae776f525c828f"),
  "fname" : "abc ",
  "lname" : "vbn",
  "age" : 34,
  "email" : "aqwe@gmail.com",
  "phone" : 43214556,
  "experience" : 10
}
{
  "_id" : ObjectId("606d2e6324ae776f525c8290"),
  "fname" : "dsaa ",

```

```

    "lname" : "Comedy",
    "age" : 30,
    "email" : "abuu@gmail.com",
    "phone" : 17892427846,
    "experience" : 5
  }
  {
    "_id" : ObjectId("606d2e6324ae776f525c8291"),
    "fname" : "rewwe ",
    "lname" : "utrjufh",
    "age" : 34,
    "email" : "awewc@gmail.com",
    "phone" : 123908756,
    "experience" : 12
  }
  {
    "_id" : ObjectId("606d2e6324ae776f525c8292"),
    "fname" : "Lord ",
    "lname" : "Montwell",
    "age" : 24,
    "email" : "miont@gmail.com",
    "phone" : 1234559876,
    "experience" : 2
  }
  {
    "_id" : ObjectId("606d2e6324ae776f525c8293"),
    "fname" : "bharat ",
    "lname" : "rai",
    "age" : 27,
    "email" : "bahart@gmail.com",
    "phone" : 943214556,
    "experience" : 9
  }
  {
    "_id" : ObjectId("606d2e6324ae776f525c8294"),
    "fname" : "pragg ",
    "lname" : "ray",
    "age" : 28,
    "email" : "pragg@gmail.com",
    "phone" : 92427846,
    "experience" : 1
  }
  { "_id" : ObjectId("606d2e6324ae776f525c8295"), "fname" : "chinnu" }

```

Aggregate function

1. db.test1.aggregate({\$match:{age:{\$gt:25}}}).pretty()

```
{
  "_id" : ObjectId("606d2e6324ae776f525c828e"),
  "fname" : "Divine ",
  "lname" : "Comedy",
  "age" : 30,
  "email" : "abc@gmail.com",
  "phone" : 1234556,
  "experience" : 5
}
{
  "_id" : ObjectId("606d2e6324ae776f525c828f"),
  "fname" : "abc ",
  "lname" : "vbn",
  "age" : 34,
  "email" : "aqwe@gmail.com",
  "phone" : 43214556,
  "experience" : 10
}
{
  "_id" : ObjectId("606d2e6324ae776f525c8290"),
  "fname" : "dsaa ",
  "lname" : "Comedy",
  "age" : 30,
  "email" : "abuu@gmail.com",
  "phone" : 17892427846,
  "experience" : 5
}
{
  "_id" : ObjectId("606d2e6324ae776f525c8291"),
  "fname" : "rewwe ",
  "lname" : "utrjufh",
  "age" : 34,
  "email" : "awewc@gmail.com",
  "phone" : 123908756,
  "experience" : 12
}
{
  "_id" : ObjectId("606d2e6324ae776f525c8293"),
  "fname" : "bharat ",
  "lname" : "rai",
  "age" : 27,
  "email" : "bahart@gmail.com",
  "phone" : 943214556,
  "experience" : 9
}
{
  "_id" : ObjectId("606d2e6324ae776f525c8294"),
  "fname" : "pragg ",
```

```

    "lname" : "ray",
    "age" : 28,
    "email" : "pragg@gmail.com",
    "phone" : 92427846,
    "experience" : 1
  }

```

2. db.test1.aggregate({\$match:{age:30}}).pretty()

```

{
  "_id" : ObjectId("606d2e6324ae776f525c828e"),
  "fname" : "Divine ",
  "lname" : "Comedy",
  "age" : 30,
  "email" : "abc@gmail.com",
  "phone" : 1234556,
  "experience" : 5
}
{
  "_id" : ObjectId("606d2e6324ae776f525c8290"),
  "fname" : "dsaa ",
  "lname" : "Comedy",
  "age" : 30,
  "email" : "abuu@gmail.com",
  "phone" : 17892427846,
  "experience" : 5
}

```

3. db.test1.aggregate({\$group:{_id: "\$age"}})

```

{ "_id" : null }
{ "_id" : 28 }
{ "_id" : 27 }
{ "_id" : 24 }
{ "_id" : 34 }
{ "_id" : 30 }
{ "_id" : 20 }

```

4. db.test1.aggregate({\$group:{_id:{age: "\$age",name:"\$name"}}})

```

> db.test1.aggregate({$group:{_id:{age: "$age",name:"$name"}}})
{ "_id" : { } }
{ "_id" : { "age" : 28 } }
{ "_id" : { "age" : 27 } }
{ "_id" : { "age" : 24 } }
{ "_id" : { "age" : 34 } }
{ "_id" : { "age" : 30 } }
{ "_id" : { "age" : 20 } }

```


5. db.test1.aggregate([{\$count:"age"}]).pretty()

```
> db.test1.aggregate([{$count:"age"}]).pretty()
{ "age" : 9 }
```

6. **For descending order** - db.test1.aggregate([{\$sort:{ age: -1}}]).pretty()

```
> db.test1.aggregate([{$sort:{ age: -1}}]).pretty()
{
  "_id" : ObjectId("606d2e6324ae776f525c828f"),
  "fname" : "abc ",
  "lname" : "vbn",
  "age" : 34,
  "email" : "aqwe@gmail.com",
  "phone" : 43214556,
  "experience" : 10
}
{
  "_id" : ObjectId("606d2e6324ae776f525c8291"),
  "fname" : "reewe ",
  "lname" : "utrjufh",
  "age" : 34,
  "email" : "awewc@gmail.com",
  "phone" : 123908756,
  "experience" : 12
}
{
  "_id" : ObjectId("606d2e6324ae776f525c828e"),
  "fname" : "Divine ",
  "lname" : "Comedy",
  "age" : 30,
  "email" : "abc@gmail.com",
  "phone" : 1234556,
  "experience" : 5
}
{
  "_id" : ObjectId("606d2e6324ae776f525c8290"),
  "fname" : "dsaa ",
  "lname" : "Comedy",
  "age" : 30,
  "email" : "abuu@gmail.com",
  "phone" : 17892427846,
  "experience" : 5
}
{
  "_id" : ObjectId("606d2e6324ae776f525c8294"),
  "fname" : "pragg ",
```

```

    "lname" : "ray",
    "age" : 28,
    "email" : "pragg@gmail.com",
    "phone" : 92427846,
    "experience" : 1
  }
  {
    "_id" : ObjectId("606d2e6324ae776f525c8293"),
    "fname" : "bharat ",
    "lname" : "rai",
    "age" : 27,
    "email" : "bahart@gmail.com",
    "phone" : 943214556,
    "experience" : 9
  }
  {
    "_id" : ObjectId("606d2e6324ae776f525c8292"),
    "fname" : "Lord ",
    "lname" : "Montwell",
    "age" : 24,
    "email" : "miont@gmail.com",
    "phone" : 1234559876,
    "experience" : 2
  }
  {
    "_id" : ObjectId("606d2b22a87e33b6a150b124"),
    "fname" : "Bharath",
    "lname" : "Kumar",
    "age" : 20,
    "email" : "kumar@gmail.com",
    "phone_no" : 9494035944,
    "experience" : 4
  }
  { "_id" : ObjectId("606d2e6324ae776f525c8295"), "fname" : "chinnu" }

```

7. db.test1.aggregate([{\$match: {experience: 5}}, {\$group: {_id: "\$age"}}]).pretty()

```

> db.test1.aggregate([{$match: {experience: 5}}, {$group: {_id: "$age"}}]).pretty()
{ "_id" : 30 }

```

MAPREDUCE FUNCTION

```

> db.test.mapReduce(function(){emit(this.cust_id,this.amount);},function(key,value){return
Array.sum(value)},{query:{status:"A"},out:"order_details3"})
{

```

```
"result" : "order_details3",
"timeMillis" : 660,
"counts" : {
  "input" : 3,
  "emit" : 3,
  "reduce" : 1,
  "output" : 2
},
"ok" : 1
}
> db.order_details3.find().pretty()
{ "_id" : "A123", "value" : 600 }
{ "_id" : "B212", "value" : 200 }
```