

```
bmscecse@bmscecse-HP-Elite-Tower-800-G9-Desktop-PC:~$ mongosh "mongodb+srv://cluster0.fvi8mso.mongodb.net/DBMS_Demo" --apiVersion 1 --username Jyothika083 --password Kishore#18
Current Mongosh Log ID: 660bc91502f7840baee085b9
Connecting to:      mongodb+srv://<credentials>@cluster0.fvi8mso.mongodb.net/DBMS_Demo?appName=mongosh+2.1.5
Using MongoDB:      7.0.7 (API Version 1)
Using Mongosh:      2.1.5
mongosh 2.2.1 is available for download: https://www.mongodb.com/try/download/shell

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

Atlas atlas-12eb3b-shard-0 [primary] DBMS_Demo> use MY_DB
switched to db MY_DB
Atlas atlas-12eb3b-shard-0 [primary] MY_DB> □
```

I. Perform the following DB operations using MongoDB.

1. Create a database “Student” with the following attributes Rollno, Age, ContactNo, Email-Id.
2. Insert appropriate values
3. Write query to update Email-Id of a student with rollno 10.
4. . Replace the student name from “ABC” to “FEM” of rollno 11

Solution:

```
Atlas atlas-12eb3b-shard-0 [primary] MY_DB> db.createCollection("Student")
;
{ ok: 1 }
Atlas atlas-12eb3b-shard-0 [primary] MY_DB>
db.Student.insert({_id:1,name:"Alice",rollNo:80,age:20,phNo:"9999988888",email:"alice@gmail.com"});
DeprecationWarning: Collection.insert() is deprecated. Use insertOne, insertMany, or bulkWrite.
{ acknowledged: true, insertedIds: { '0': 1 } }
Atlas atlas-12eb3b-shard-0 [primary] MY_DB>
db.Student.insert({_id:2,name:"Bob",rollNo:81,age:20,phno:"8888855555",email:"bob@gmail.com"});
{ acknowledged: true, insertedIds: { '0': 2 } }
Atlas atlas-12eb3b-shard-0 [primary] MY_DB>
db.Student.insert({_id:3,name:"Cath",rollNo:82,age:21,phno:"8888877777",email:"cath@gmail.com"});
{ acknowledged: true, insertedIds: { '0': 3 } }

Atlas atlas-12eb3b-shard-0 [primary] MY_DB> db.Student.find();
```

Lab:2

```
[
  {
    _id: 1,
    name: 'Alice',
    rollNo: 80,
    age: 20,
    phNo: '9999988888',
    email: 'alice@gmail.com'
  },
  {
    _id: 2,
    name: 'Bob',
    rollNo: 81,
    age: 20,
    email: 'bob@gmail.com',
    phNo: '8888855555'
  },
  {
    _id: 3,
    name: 'Cath',
    rollNo: 82,
    age: 21,
    email: 'cath@gmail.com',
    phNo: '8888877777'
  }
]
```

```
Atlas atlas-12eb3b-shard-0 [primary] MY_DB> db.Student.update({rollNo:80},
{$set:{email:"alice123@gmail.com"}});
```

DeprecationWarning: Collection.update() is deprecated. Use updateOne, updateMany, or bulkWrite.

```
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```

II. Perform the following DB operations using MongoDB.

1. Create a collection by name Customers with the following attributes.

Cust_id, Acc_Bal, Acc_Type

2. Insert at least 5 values into the table

3. Write a query to display those records whose total account balance is greater than 1200 of account type 'Z' for each customer_id.

4. Determine Minimum and Maximum account balance for each customer_i

```
Atlas atlas-12eb3b-shard-0 [primary] MY_DB> db.createCollection("Customers");
```

```
{ ok: 1 }
```

```
Atlas atlas-12eb3b-shard-0 [primary] MY_DB>
```

```
db.Student.insertOne({custId:1,accBal:10000,accType:"saving"});
```

```
{
  acknowledged: true,
  insertedId: ObjectId('660295b055dc2f3d86c4479f')
}
```

```
Atlas atlas-12eb3b-shard-0 [primary] MY_DB>
```

```
db.Customers.insertOne({custId:1,accBal:10000,accType:"saving"});
```

```
{
  acknowledged: true,
  insertedId: ObjectId('660295c155dc2f3d86c447a0')
}
```

```
Atlas atlas-12eb3b-shard-0 [primary] MY_DB>
```

```
db.Customers.insertOne({custId:2,accBal:50000,accType:"current"});
```

```
{
  acknowledged: true,
  insertedId: ObjectId('6602960055dc2f3d86c447a1')
}
```

```
Atlas atlas-12eb3b-shard-0 [primary] MY_DB>
```

```
db.Customers.insertOne({custId:3,accBal:60000,accType:"current"});
```

```
{
  acknowledged: true,
  insertedId: ObjectId('6602960e55dc2f3d86c447a2')
}
```

```
Atlas atlas-12eb3b-shard-0 [primary] MY_DB>
```

```
db.Customers.insertOne({custId:4,accBal:20000,accType:"savings"});
```

```
{
  acknowledged: true,
  insertedId: ObjectId('6602961c55dc2f3d86c447a3')
}
```

```
Atlas atlas-12eb3b-shard-0 [primary] MY_DB>
```

```
db.Customers.insertOne({custId:5,accBal:200000,accType:"current"});
```

```
{
  acknowledged: true,
```

Lab:2

```
    insertedId: ObjectId('6602962955dc2f3d86c447a4')
  }
Atlas atlas-12eb3b-shard-0 [primary] MY_DB> db.Customers.find();
[
  {
    _id: ObjectId('660295c155dc2f3d86c447a0'),
    custId: 1,
    accBal: 10000,
    accType: 'savings'
  },
  {
    _id: ObjectId('6602960055dc2f3d86c447a1'),
    custId: 2,
    accBal: 50000,
    accType: 'current'
  },
  {
    _id: ObjectId('6602960e55dc2f3d86c447a2'),
    custId: 3,
    accBal: 60000,
    accType: 'current'
  },
  {
    _id: ObjectId('6602961c55dc2f3d86c447a3'),
    custId: 4,
    accBal: 20000,
    accType: 'savings'
  },
  {
    _id: ObjectId('6602962955dc2f3d86c447a4'),
    custId: 5,
    accBal: 200000,
    accType: 'current'
  },
  {
    _id: ObjectId('6602980955dc2f3d86c447a5'),
    custId: 1,
    accBal: 30000,
    accType: 'savings'
  },
  {
    _id: ObjectId('6602982f55dc2f3d86c447a6'),
    custId: 2,
```

Lab:2

```
    accBal: 20000,
    accType: 'current'
  }
]
Atlas atlas-12eb3b-shard-0 [primary] MY_DB> db.Customers.aggregate({$
match:{accType:'savings'}},{ $group:{_id:"$custId",TotalAccBal:{$sum:"$accBal"}},{ $match:{TotalAccBal:{$gt:20000}}});
[ { _id: 1, TotalAccBal: 40000 } ]
Atlas atlas-12eb3b-shard-0 [primary] MY_DB>
db.Customers.aggregate({ $group:{_id:"$custId",minAccBal:{$min:"$accBal"},maxAccBal:{$max:"accBal"}}});
[
  { _id: 1, minAccBal: 10000, maxAccBal: 'accBal' },
  { _id: 4, minAccBal: 20000, maxAccBal: 'accBal' },
  { _id: 5, minAccBal: 200000, maxAccBal: 'accBal' },
  { _id: 2, minAccBal: 20000, maxAccBal: 'accBal' },
  { _id: 3, minAccBal: 60000, maxAccBal: 'accBal' }
]
Atlas atlas-12eb3b-shard-0 [primary] MY_DB>
db.Customers.aggregate({ $group:{_id:"$custId",minAccBal:{$min:"$accBal"},maxAccBal:{$max:"$accBal"}}});
[
  { _id: 3, minAccBal: 60000, maxAccBal: 60000 },
  { _id: 4, minAccBal: 20000, maxAccBal: 20000 },
  { _id: 5, minAccBal: 200000, maxAccBal: 200000 },
  { _id: 2, minAccBal: 20000, maxAccBal: 50000 },
  { _id: 1, minAccBal: 10000, maxAccBal: 30000 }
]
```

Lab:2

```
Atlas atlas-12eb3b-shard-0 [primary] MY_DB> db.Customers.find().sort({custId:1}).pretty();
[
  {
    _id: ObjectId('660295c155dc2f3d86c447a0'),
    custId: 1,
    accBal: 10000,
    accType: 'savings'
  },
  {
    _id: ObjectId('6602980955dc2f3d86c447a5'),
    custId: 1,
    accBal: 30000,
    accType: 'savings'
  },
  {
    _id: ObjectId('6602960055dc2f3d86c447a1'),
    custId: 2,
    accBal: 50000,
    accType: 'current'
  },
  {
    _id: ObjectId('6602982f55dc2f3d86c447a6'),
    custId: 2,
    accBal: 20000,
    accType: 'current'
  },
  {
    _id: ObjectId('6602960e55dc2f3d86c447a2'),
    custId: 3,
    accBal: 60000,
    accType: 'current'
  },
  {
    _id: ObjectId('6602961c55dc2f3d86c447a3'),
    custId: 4,
    accBal: 20000,
    accType: 'savings'
  },
  {
    _id: ObjectId('6602962955dc2f3d86c447a4'),
    custId: 5,
    accBal: 200000,
    accType: 'current'
  }
]
Atlas atlas-12eb3b-shard-0 [primary] MY_DB> 
```

Lab:2

```
Atlas atlas-12eb3b-shard-0 [primary] MY_DB> db.Customers.find().sort({accBal:-1}).pretty();
[
  {
    _id: ObjectId('6602962955dc2f3d86c447a4'),
    custId: 5,
    accBal: 200000,
    accType: 'current'
  },
  {
    _id: ObjectId('6602960e55dc2f3d86c447a2'),
    custId: 3,
    accBal: 60000,
    accType: 'current'
  },
  {
    _id: ObjectId('6602960055dc2f3d86c447a1'),
    custId: 2,
    accBal: 50000,
    accType: 'current'
  },
  {
    _id: ObjectId('6602980955dc2f3d86c447a5'),
    custId: 1,
    accBal: 30000,
    accType: 'savings'
  },
  {
    _id: ObjectId('6602961c55dc2f3d86c447a3'),
    custId: 4,
    accBal: 20000,
    accType: 'savings'
  },
  {
    _id: ObjectId('6602982f55dc2f3d86c447a6'),
    custId: 2,
    accBal: 20000,
    accType: 'current'
  },
  {
    _id: ObjectId('660295c155dc2f3d86c447a0'),
    custId: 1,
    accBal: 10000,
    accType: 'savings'
  }
]
Atlas atlas-12eb3b-shard-0 [primary] MY_DB> 
```