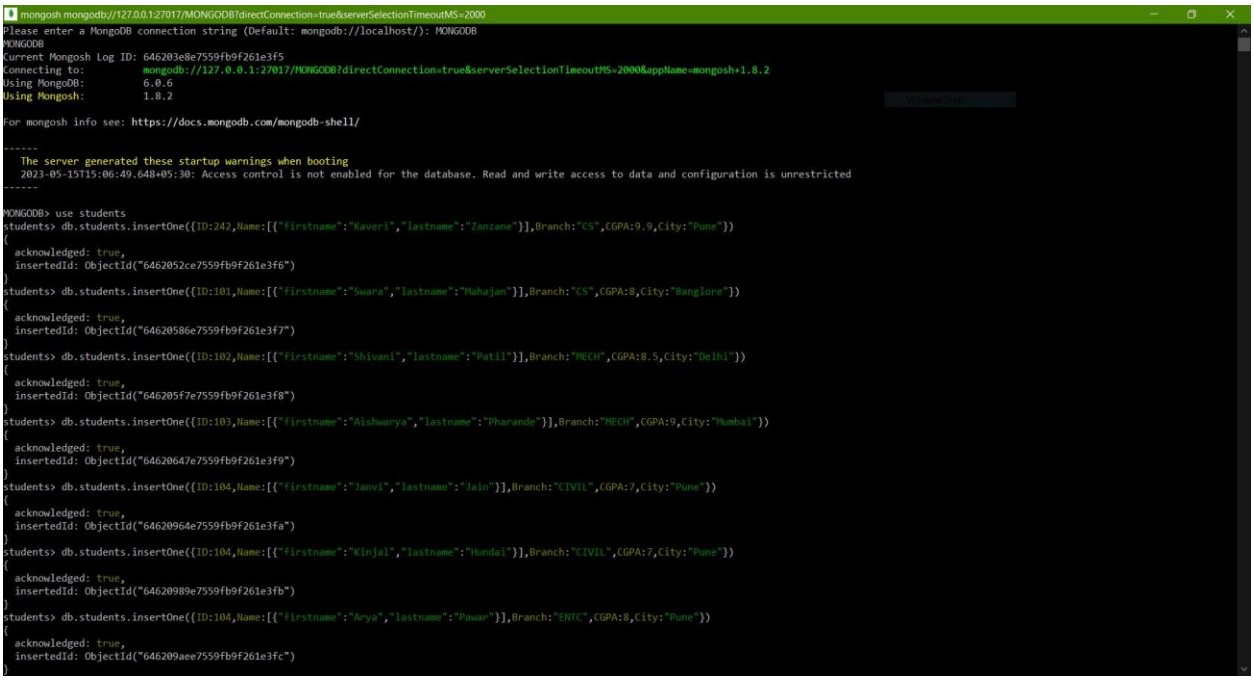
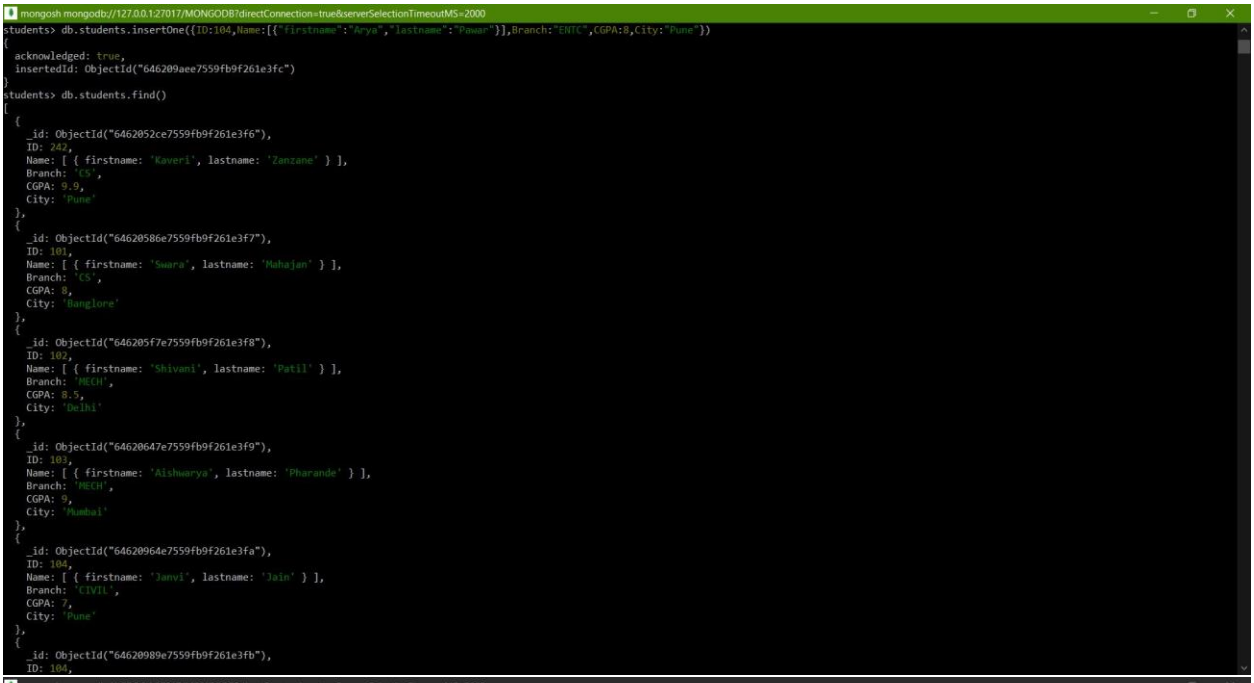
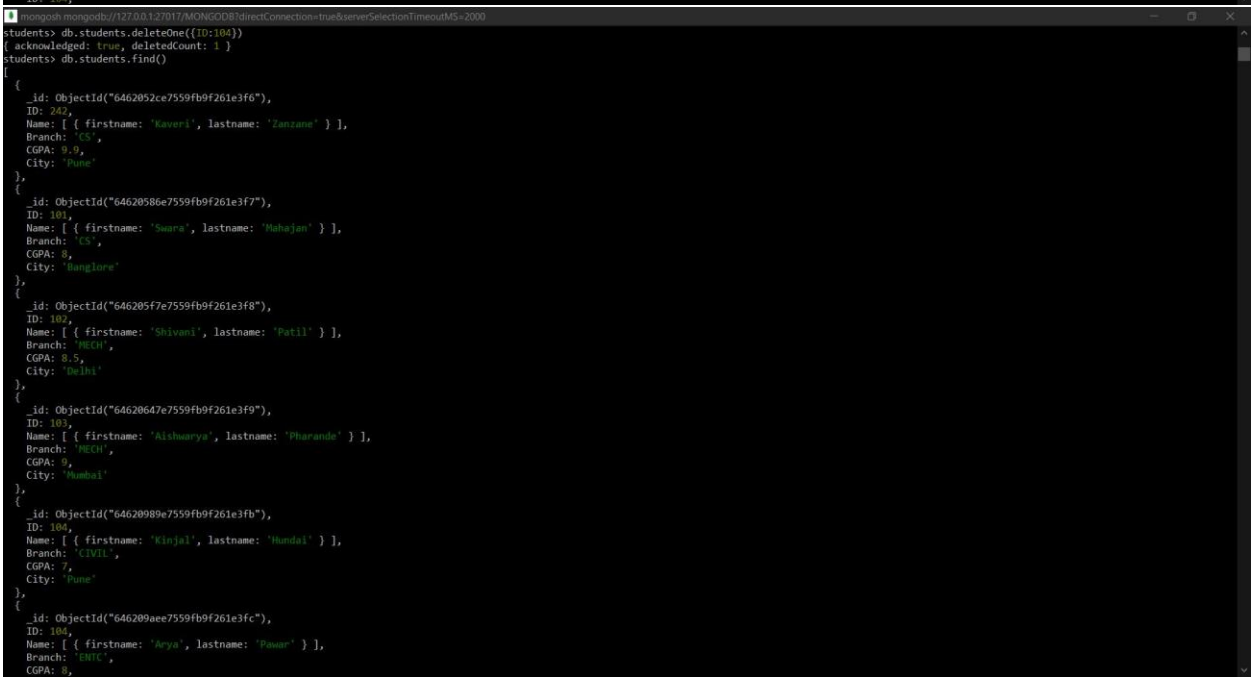
DBMS extra lab

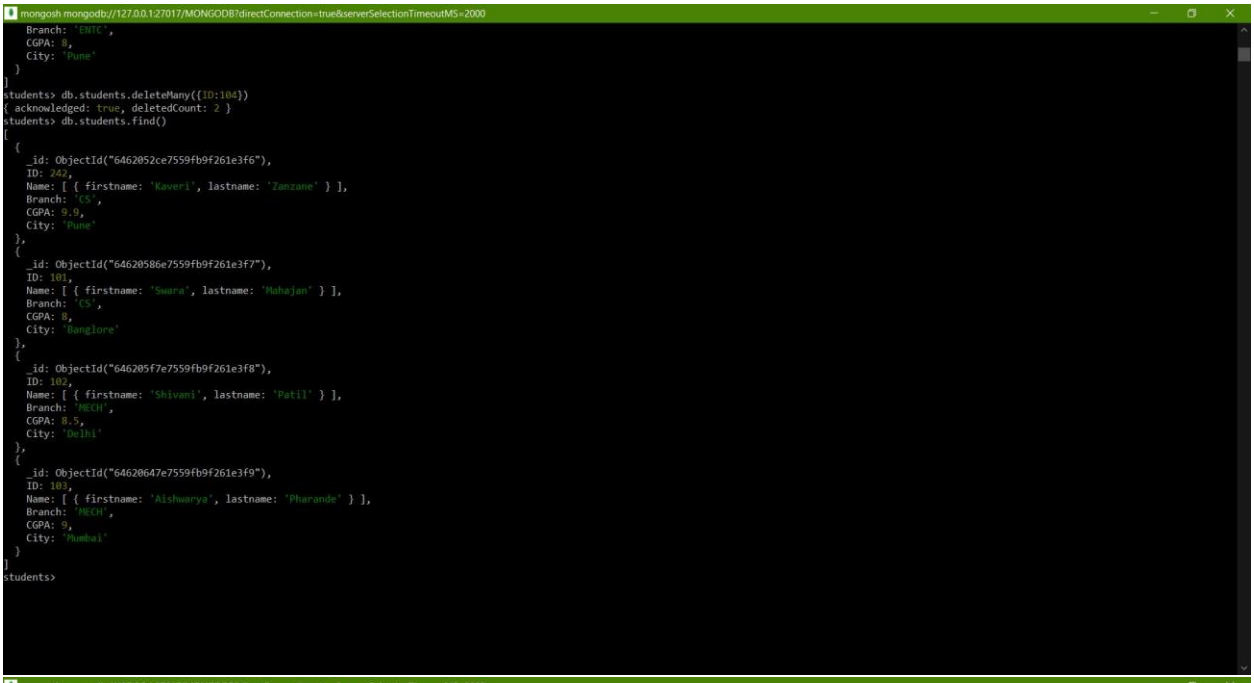
Commands executed:

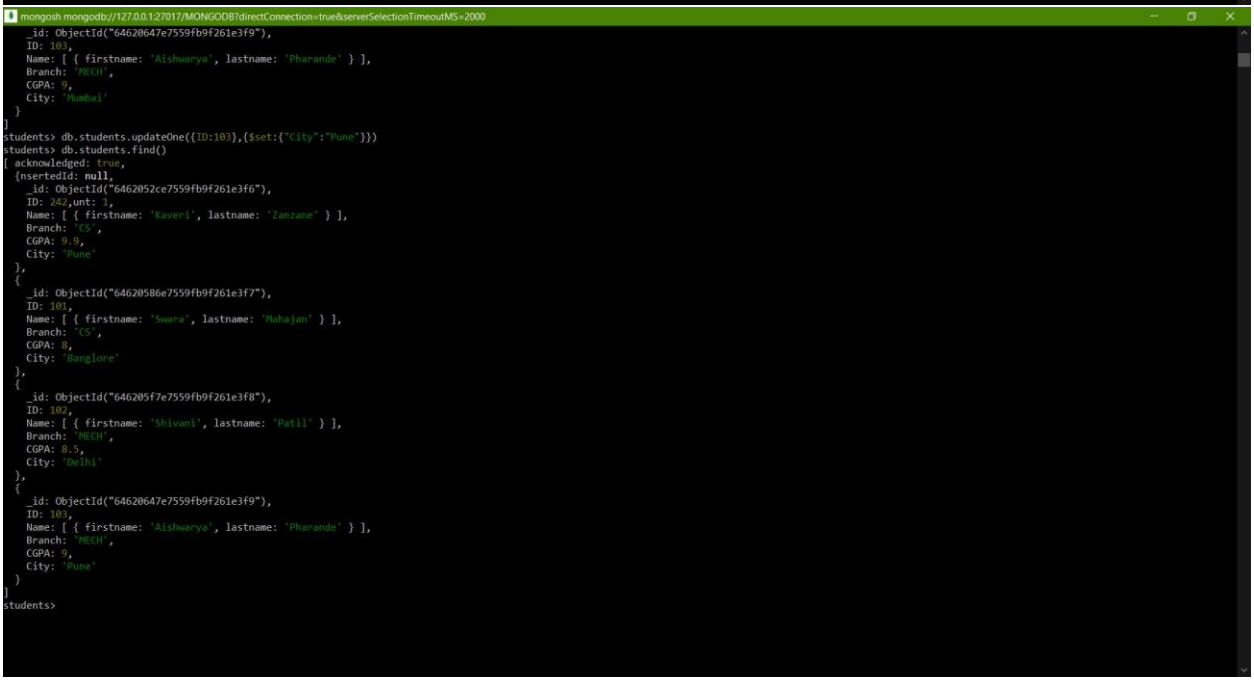
1. Insert
2. Update
3. Delete
4. count( )
5. limit( )
6. sort( )
7. $gt
8. $lt
9. $in
10. $min
11. $max
12. $sum

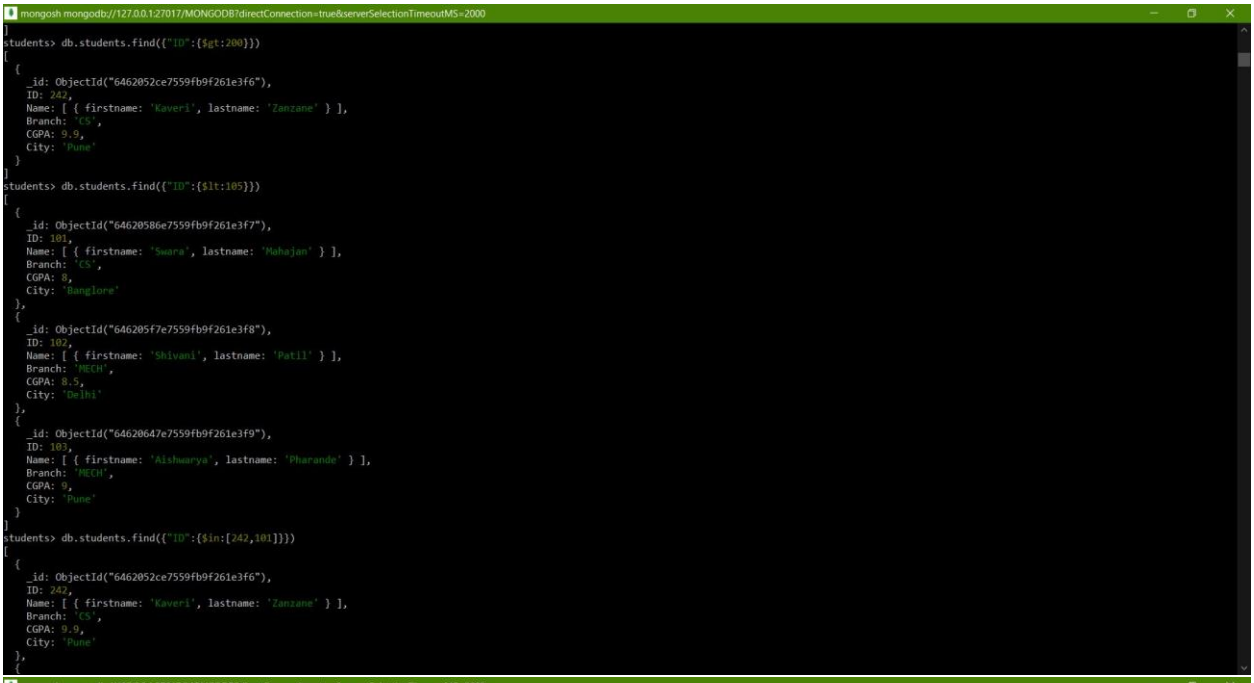


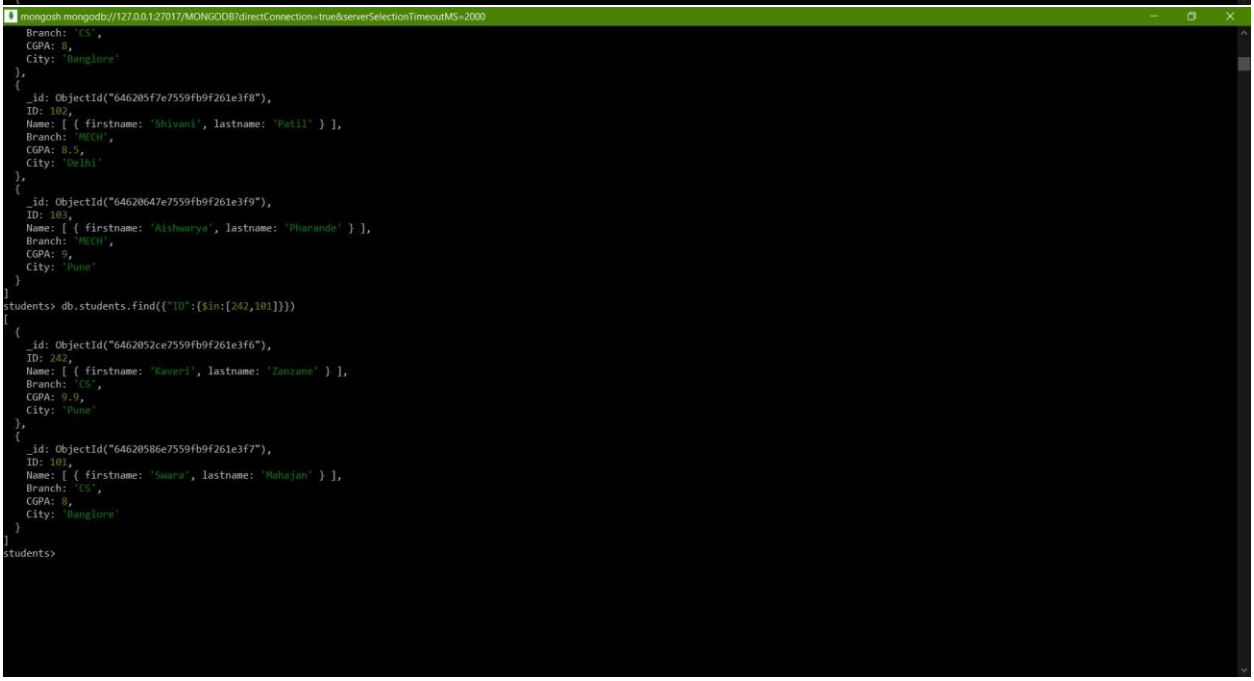

mongosh mongodb://127.0.0.1:27017/MONGODB?directConnection=true&serverSelectionTimeoutMS=2000
students> db.students.insertOne({ID:104,Name:[{"firstname":"Arya","lastname":"Pawar"}],Branch:"ENTC",CGPA:8,City:"Pune"})
{
acknowledged: true,
insertedId: ObjectId("646209aee7559fb9f261e3fc")
}
students> db.students.find()
[
{
_id: ObjectId("6462052ce7559fb9f261e3f6"),
ID: 242,
Name: [{ firstname: 'Kaveri', lastname: 'Zanzane' }],
Branch: 'CS',
CGPA: 9.9,
City: 'Pune'
},
{
_id: ObjectId("64620586e7559fb9f261e3f7"),
ID: 101,
Name: [{ firstname: 'Swara', lastname: 'Mahajan' }],
Branch: 'CS',
CGPA: 8,
City: 'Banglore'
},
{
_id: ObjectId("646205f7e7559fb9f261e3f8"),
ID: 102,
Name: [{ firstname: 'Shivani', lastname: 'Patil' }],
Branch: 'MECH',
CGPA: 8.5,
City: 'Delhi'
},
{
_id: ObjectId("64620647e7559fb9f261e3f9"),
ID: 103,
Name: [{ firstname: 'Aishwarya', lastname: 'Pharande' }],
Branch: 'MECH',
CGPA: 9,
City: 'Mumbai'
},
{
_id: ObjectId("64620964e7559fb9f261e3fa"),
ID: 104,
Name: [{ firstname: 'Janvi', lastname: 'Jain' }],
Branch: 'CIVIL',
CGPA: 7,
City: 'Pune'
},
{
_id: ObjectId("64620989e7559fb9f261e3fb"),
ID: 104,

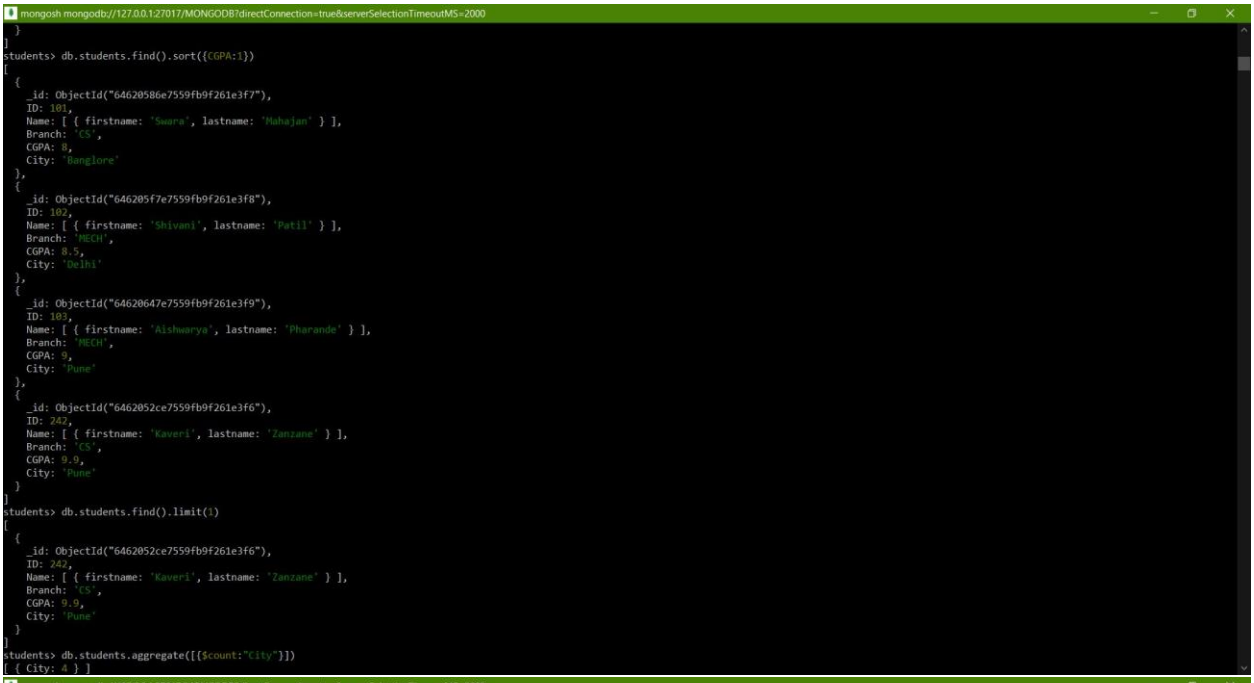

mongosh mongodb://127.0.0.1:27017/MONGODB?directConnection=true&serverSelectionTimeoutMS=2000
students> db.students.deleteOne({ID:104})
{ acknowledged: true, deletedCount: 1 }
students> db.students.find()
[
{
_id: ObjectId("6462052ce7559fb9f261e3f6"),
ID: 242,
Name: [{ firstname: 'Kaveri', lastname: 'Zanzane' }],
Branch: 'CS',
CGPA: 9.9,
City: 'Pune'
},
{
_id: ObjectId("64620586e7559fb9f261e3f7"),
ID: 101,
Name: [{ firstname: 'Swara', lastname: 'Mahajan' }],
Branch: 'CS',
CGPA: 8,
City: 'Banglore'
},
{
_id: ObjectId("646205f7e7559fb9f261e3f8"),
ID: 102,
Name: [{ firstname: 'Shivani', lastname: 'Patil' }],
Branch: 'MECH',
CGPA: 8.5,
City: 'Delhi'
},
{
_id: ObjectId("64620647e7559fb9f261e3f9"),
ID: 103,
Name: [{ firstname: 'Aishwarya', lastname: 'Pharande' }],
Branch: 'MECH',
CGPA: 9,
City: 'Mumbai'
},
{
_id: ObjectId("64620989e7559fb9f261e3fb"),
ID: 104,
Name: [{ firstname: 'Kinjal', lastname: 'Hundal' }],
Branch: 'CIVIL',
CGPA: 7,
City: 'Pune'
},
{
_id: ObjectId("646209aee7559fb9f261e3fc"),
ID: 104,
Name: [{ firstname: 'Arya', lastname: 'Pawar' }],
Branch: 'ENTC',
CGPA: 8,

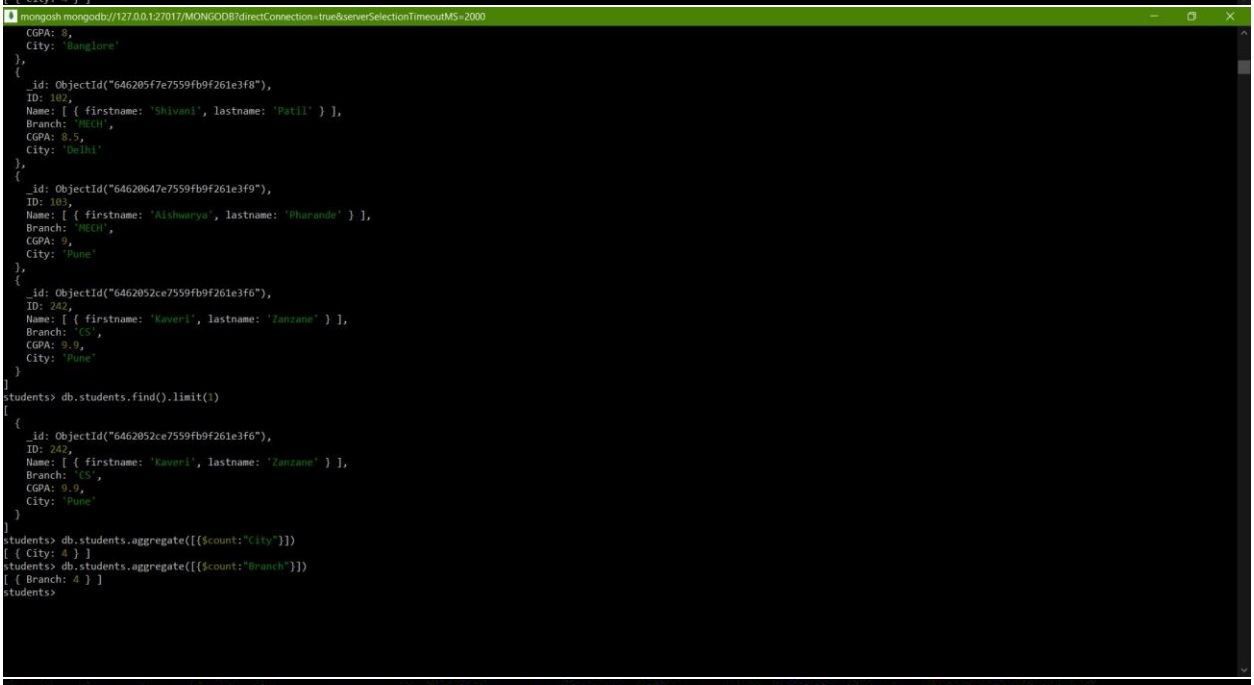

mongosh mongodb://127.0.0.1:27017/MONGODB?directConnection=true&serverSelectionTimeoutMS=2000
Branch: 'ENTC',
CGPA: 8,
City: 'Pune'
}
]
students> db.students.deleteMany({ID:104})
{ acknowledged: true, deletedCount: 2 }
students> db.students.find()
[
{
_id: ObjectId("6462052ce7559fb9f261e3f6"),
ID: 242,
Name: [{ firstname: 'Kaveri', lastname: 'Zanzane' }],
Branch: 'CS',
CGPA: 9.9,
City: 'Pune'
},
{
_id: ObjectId("64620586e7559fb9f261e3f7"),
ID: 101,
Name: [{ firstname: 'Swara', lastname: 'Mahajan' }],
Branch: 'CS',
CGPA: 8,
City: 'Banglore'
},
{
_id: ObjectId("646205f7e7559fb9f261e3f8"),
ID: 102,
Name: [{ firstname: 'Shivani', lastname: 'Patil' }],
Branch: 'MECH',
CGPA: 8.5,
City: 'Delhi'
},
{
_id: ObjectId("64620647e7559fb9f261e3f9"),
ID: 103,
Name: [{ firstname: 'Aishwarya', lastname: 'Pharande' }],
Branch: 'MECH',
CGPA: 9,
City: 'Mumbai'
}
]
students>

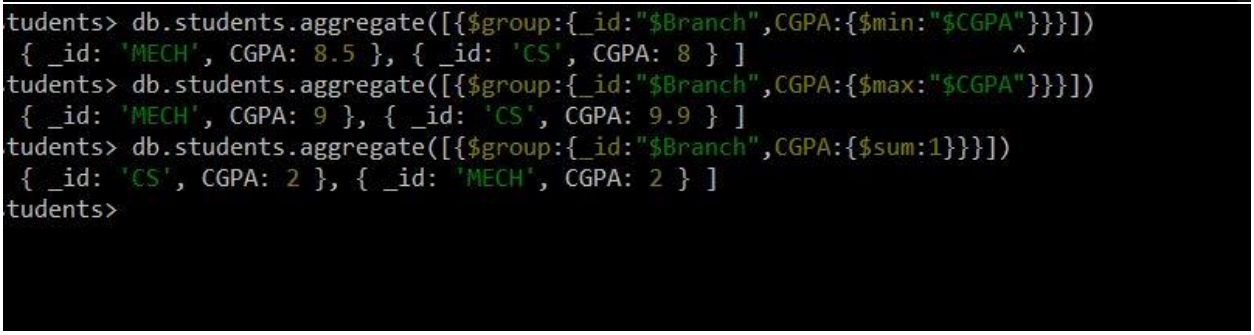

mongosh mongodb://127.0.0.1:27017/MONGODB?directConnection=true&serverSelectionTimeoutMS=2000
_id: ObjectId("64620647e7559fb9f261e3f9"),
ID: 103,
Name: [{ firstname: 'Aishwarya', lastname: 'Pharande' }],
Branch: 'MECH',
CGPA: 9,
City: 'Mumbai'
}
]
students> db.students.updateOne({ID:103},{$set:{"City":"Pune"}})
students> db.students.find()
{ acknowledged: true,
{nsertedId: null,
_id: ObjectId("6462052ce7559fb9f261e3f6"),
ID: 242,unt: 1,
Name: [{ firstname: 'Kaveri', lastname: 'Zanzane' }],
Branch: 'CS',
CGPA: 9.9,
City: 'Pune'
},
{
_id: ObjectId("64620586e7559fb9f261e3f7"),
ID: 101,
Name: [{ firstname: 'Swara', lastname: 'Mahajan' }],
Branch: 'CS',
CGPA: 8,
City: 'Banglore'
},
{
_id: ObjectId("646205f7e7559fb9f261e3f8"),
ID: 102,
Name: [{ firstname: 'Shivani', lastname: 'Patil' }],
Branch: 'MECH',
CGPA: 8.5,
City: 'Delhi'
},
{
_id: ObjectId("64620647e7559fb9f261e3f9"),
ID: 103,
Name: [{ firstname: 'Aishwarya', lastname: 'Pharande' }],
Branch: 'MECH',
CGPA: 9,
City: 'Pune'
}
]
students>


mongosh mongodb://127.0.0.1:27017/MONGODB?directConnection=true&serverSelectionTimeoutMS=2000
]
students> db.students.find({"ID":{$gt:200}})
[
{
_id: ObjectId("6462052ce7559fb9f261e3f6"),
ID: 242,
Name: [{ firstname: 'Kaveri', lastname: 'Zanzane' }],
Branch: 'CS',
CGPA: 9.9,
City: 'Pune'
}
]
students> db.students.find({"ID":{$lt:105}})
[
{
_id: ObjectId("64620586e7559fb9f261e3f7"),
ID: 101,
Name: [{ firstname: 'Swara', lastname: 'Mahajan' }],
Branch: 'CS',
CGPA: 8,
City: 'Banglore'
},
{
_id: ObjectId("646205f7e7559fb9f261e3f8"),
ID: 102,
Name: [{ firstname: 'Shivani', lastname: 'Patil' }],
Branch: 'MECH',
CGPA: 8.5,
City: 'Delhi'
},
{
_id: ObjectId("64620647e7559fb9f261e3f9"),
ID: 103,
Name: [{ firstname: 'Aishwarya', lastname: 'Pharande' }],
Branch: 'MECH',
CGPA: 9,
City: 'Pune'
}
]
students> db.students.find({"ID":{$in:[242,101]}})
[
{
_id: ObjectId("6462052ce7559fb9f261e3f6"),
ID: 242,
Name: [{ firstname: 'Kaveri', lastname: 'Zanzane' }],
Branch: 'CS',
CGPA: 9.9,
City: 'Pune'
},
{


mongosh mongodb://127.0.0.1:27017/MONGODB?directConnection=true&serverSelectionTimeoutMS=2000
Branch: 'CS',
CGPA: 8,
City: 'Banglore'
},
{
_id: ObjectId("646205f7e7559fb9f261e3f8"),
ID: 102,
Name: [{ firstname: 'Shivani', lastname: 'Patil' }],
Branch: 'MECH',
CGPA: 8.5,
City: 'Delhi'
},
{
_id: ObjectId("64620647e7559fb9f261e3f9"),
ID: 103,
Name: [{ firstname: 'Aishwarya', lastname: 'Pharande' }],
Branch: 'MECH',
CGPA: 9,
City: 'Pune'
}
]
students> db.students.find({"ID":{$in:[242,101]}})
[
{
_id: ObjectId("6462052ce7559fb9f261e3f6"),
ID: 242,
Name: [{ firstname: 'Kaveri', lastname: 'Zanzane' }],
Branch: 'CS',
CGPA: 9.9,
City: 'Pune'
},
{
_id: ObjectId("64620586e7559fb9f261e3f7"),
ID: 101,
Name: [{ firstname: 'Swara', lastname: 'Mahajan' }],
Branch: 'CS',
CGPA: 8,
City: 'Banglore'
}
]
students>


mongosh mongodb://127.0.0.1:27017/MONGODB?directConnection=true&serverSelectionTimeoutMS=2000
students> db.students.find().sort({CGPA:1})
students> db.students.find().limit(1)
students> db.students.aggregate([{$count:"City"}])
{ City: 4 }


mongosh mongodb://127.0.0.1:27017/MONGODB?directConnection=true&serverSelectionTimeoutMS=2000
students> db.students.find().limit(1)
students> db.students.aggregate([{$count:"City"}])
{ City: 4 }
students> db.students.aggregate([{$count:"Branch"}])
{ Branch: 4 }
students>


tudents> db.students.aggregate([{$group:{_id:"$Branch",CGPA:{$min:"$CGPA"}}}])
{ _id: 'MECH', CGPA: 8.5 }, { _id: 'CS', CGPA: 8 }]
tudents> db.students.aggregate([{$group:{_id:"$Branch",CGPA:{$max:"$CGPA"}}}])
{ _id: 'MECH', CGPA: 9 }, { _id: 'CS', CGPA: 9.9 }]
tudents> db.students.aggregate([{$group:{_id:"$Branch",CGPA:{$sum:1}}}])
{ _id: 'CS', CGPA: 2 }, { _id: 'MECH', CGPA: 2 }]
tudents>