Assignment on unstructured database

Name : Kaveri Zanzane

Roll no : 242

STATEMENT:

Design unstructured database and perform insert, update, delete operations on it. Apply commands like count( ), limit( ),sort( ) , find on the database. Use operators like $gt, $lt,$in, etc

Insert:

```
mongosh mongodb://127.0.0.1:27017/MONGODB?directConnection=true&serverSelectionTimeoutMS=2000
Please enter a MongoDB connection string (Default: mongodb://localhost/): MONGODB
MONGODB
Current Mongosh Log ID: 646203e8e7559fb9f261e3f5
Connecting to:          mongodb://127.0.0.1:27017/MONGODB?directConnection=true&serverSelectionTimeoutMS=2000&appName=mongosh+1.8.2
Using MongoDB:          6.0.6
Using Mongosh:          1.8.2

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

------
   The server generated these startup warnings when booting
   2023-05-15T15:06:49.648+05:30: Access control is not enabled for the database. Read and write access to data and configuration is unrestricted
------

MONGODB> use students
students> db.students.insertOne({ID:242,Name:[{"firstname":"Kaveri","lastname":"Zanzane"}],Branch:"CS",CGPA:9.9,City:"Pune"})
{
  acknowledged: true,
  insertedId: ObjectId("6462052ce7559fb9f261e3f6")
}
students> db.students.insertOne({ID:101,Name:[{"firstname":"Swara","lastname":"Mahajan"}],Branch:"CS",CGPA:8,City:"Banglore"})
{
  acknowledged: true,
  insertedId: ObjectId("64620586e7559fb9f261e3f7")
}
students> db.students.insertOne({ID:102,Name:[{"firstname":"Shivani","lastname":"Patil"}],Branch:"MECH",CGPA:8.5,City:"Delhi"})
{
  acknowledged: true,
  insertedId: ObjectId("646205f7e7559fb9f261e3f8")
}
students> db.students.insertOne({ID:103,Name:[{"firstname":"Aishwarya","lastname":"Pharande"}],Branch:"MECH",CGPA:9,City:"Mumbai"})
{
  acknowledged: true,
  insertedId: ObjectId("64620647e7559fb9f261e3f9")
}
students> db.students.insertOne({ID:104,Name:[{"firstname":"Janvi","lastname":"Jain"}],Branch:"CIVIL",CGPA:7,City:"Pune"})
{
  acknowledged: true,
  insertedId: ObjectId("64620964e7559fb9f261e3fa")
}
students> db.students.insertOne({ID:104,Name:[{"firstname":"Kinjal","lastname":"Hundai"}],Branch:"CIVIL",CGPA:7,City:"Pune"})
{
  acknowledged: true,
  insertedId: ObjectId("64620989e7559fb9f261e3fb")
}
students> db.students.insertOne({ID:104,Name:[{"firstname":"Arya","lastname":"Pawar"}],Branch:"ENTC",CGPA:8,City:"Pune"})
{
  acknowledged: true,
  insertedId: ObjectId("646209aee7559fb9f261e3fc")
}
```

Find():

```
mongosh mongodb://127.0.0.1:27017/MONGODb?directConnection=true&serverSelectionTimeoutMS=2000

students> db.students.insertOne({ID:104,Name:[{"firstname":"Arya","lastname":"Pawar"}],Branch:"
{
  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,
```

Delete(): DeleteOne() & DeleteMany()

```
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: 'Hundai' } ],
    Branch: 'CIVIL',
    CGPA: 7,
    City: 'Pune'
  },
  {
    _id: ObjectId("646209aee7559fb9f261e3fc"),
    ID: 104,
    Name: [ { firstname: 'Arya', lastname: 'Pawar' } ],
    Branch: 'ENTC',
    CGPA: 8,
```

```
    Branch: 'ENTC',
    CGPA: 8,
    City: 'Pune'
  }

tudents> db.students.deleteMany({ID:104})
 acknowledged: true, deletedCount: 2 }
tudents> 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'
  }

tudents>
```

Update(): UpdateOne()

```
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>
```

$gt, $lt:

```
]
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'
  },
  {
```

Sort() ,Agrregate() & Limit():

```
mongosh mongodb://127.0.0.1:27017/MONGODB?directConnection=true&serverSelectionTimeoutMS=2000
  }
]
students> db.students.find().sort({CGPA:1})
[
  {
    _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'
  },
  {
    _id: ObjectId("6462052ce7559fb9f261e3f6"),
    ID: 242,
    Name: [ { firstname: 'Kaveri', lastname: 'Zanzane' } ],
    Branch: 'CS',
    CGPA: 9.9,
    City: 'Pune'
  }
]
students> db.students.find().limit(1)
[
  {
    _id: ObjectId("6462052ce7559fb9f261e3f6"),
    ID: 242,
    Name: [ { firstname: 'Kaveri', lastname: 'Zanzane' } ],
    Branch: 'CS',
    CGPA: 9.9,
    City: 'Pune'
  }
]
students> db.students.aggregate([{$count:"City"}])
[ { City: 4 } ]
```

$in :

```
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>
```

```
    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'
  },
  {
    _id: ObjectId("6462052ce7559fb9f261e3f6"),
    ID: 242,
    Name: [ { firstname: 'Kaveri', lastname: 'Zanzane' } ],
    Branch: 'CS',
    CGPA: 9.9,
    City: 'Pune'
  }
]
students> db.students.find().limit(1)
[
  {
    _id: ObjectId("6462052ce7559fb9f261e3f6"),
    ID: 242,
    Name: [ { firstname: 'Kaveri', lastname: 'Zanzane' } ],
    Branch: 'CS',
    CGPA: 9.9,
    City: 'Pune'
  }
]
students> db.students.aggregate([{$count:"City"}])
[ { City: 4 } ]
students> db.students.aggregate([{$count:"Branch"}])
[ { Branch: 4 } ]
students>
```

Commands:

MONGODB> use students

students>
db.students.insertOne({ID:242,Name:[{"firstname":"Kaveri","lastname":"Zanzane"}],Branch:"CS",CGPA:9.9,City:"Pune"})

{

  acknowledged: true,

  insertedId: ObjectId("6462052ce7559fb9f261e3f6")

}

students>
db.students.insertOne({ID:101,Name:[{"firstname":"Swara","lastname":"Mahajan"}],Branch:"CS",CGPA:8,City:"Banglore"})

{

  acknowledged: true,

  insertedId: ObjectId("64620586e7559fb9f261e3f7")

}

students>
db.students.insertOne({ID:102,Name:[{"firstname":"Shivani","lastname":"Patil"}],Branch:"MECH",CGPA:8.5,City:"Delhi"})

{

  acknowledged: true,

  insertedId: ObjectId("646205f7e7559fb9f261e3f8")

}

students>
db.students.insertOne({ID:103,Name:[{"firstname":"Aishwarya","lastname":"Pharande"}],Branch:"MECH",CGPA:9,City:"Mumbai"})

{

  acknowledged: true,

  insertedId: ObjectId("64620647e7559fb9f261e3f9")

}

```
students>
db.students.insertOne({ID:104,Name:[{"firstname":"Janvi","lastname":"Jain"}],Branch:"CIVIL",CGPA:
7,City:"Pune"})

{

  acknowledged: true,

  insertedId: ObjectId("64620964e7559fb9f261e3fa")

}

students>
db.students.insertOne({ID:104,Name:[{"firstname":"Kinjal","lastname":"Hundai"}],Branch:"CIVIL",CG
PA:7,City:"Pune"})

{

  acknowledged: true,

  insertedId: ObjectId("64620989e7559fb9f261e3fb")

}

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,
    Name: [ { firstname: 'Kinjal', lastname: 'Hundai' } ],
    Branch: 'CIVIL',
    CGPA: 7,
    City: 'Pune'
  },
  {
    _id: ObjectId("646209aee7559fb9f261e3fc"),
    ID: 104,
    Name: [ { firstname: 'Arya', lastname: 'Pawar' } ],
    Branch: 'ENTC',
    CGPA: 8,
    City: 'Pune'
  }
]

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: 'Hundai' } ],
    Branch: 'CIVIL',
```

```
    CGPA: 7,

    City: 'Pune'

  },

  {

    _id: ObjectId("646209aee7559fb9f261e3fc"),

    ID: 104,

    Name: [ { firstname: 'Arya', lastname: 'Pawar' } ],

    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'
  }
]

   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.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'
  }
]


  {
    _id: ObjectId("64620647e7559fb9f261e3f9"),
    ID: 103,
    Name: [ { firstname: 'Aishwarya', lastname: 'Pharande' } ],
    Branch: 'MECH',
    CGPA: 9,
    City: 'Pune'
  }
]
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'

  },

  {

    _id: ObjectId("64620586e7559fb9f261e3f7"),

    ID: 101,

    Name: [ { firstname: 'Swara', lastname: 'Mahajan' } ],

    Branch: 'CS',

    CGPA: 8,

    City: 'Banglore'

  }

]

students> db.students.find().sort({CGPA:1})

[

  {

    _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'

  },

  {

    _id: ObjectId("6462052ce7559fb9f261e3f6"),

    ID: 242,

    Name: [ { firstname: 'Kaveri', lastname: 'Zanzane' } ],

    Branch: 'CS',

    CGPA: 9.9,

    City: 'Pune'

  }

]
```

```
students> db.students.find().limit(1)
[
  {
    _id: ObjectId("6462052ce7559fb9f261e3f6"),
    ID: 242,
    Name: [ { firstname: 'Kaveri', lastname: 'Zanzane' } ],
    Branch: 'CS',
    CGPA: 9.9,
    City: 'Pune'
  }
]
students> db.students.aggregate([{$count:"City"}])
[ { City: 4 } ]
students> db.students.aggregate([{$count:"Branch"}])
[ { Branch: 4 } ]
students>
```