LAB ASSIGNMENT – 02

DATE: 19/01/2026

Name :- Snigdha Sucharita Kar
Roll-No: UG/02/BTCSEAIML/2023/075
Reg-NO: AU/2023/0010993
Section : ’E”

Q1. Make a schema first and then insert 6 documents.

□ Roll_no=[1,2,3,4,5,]

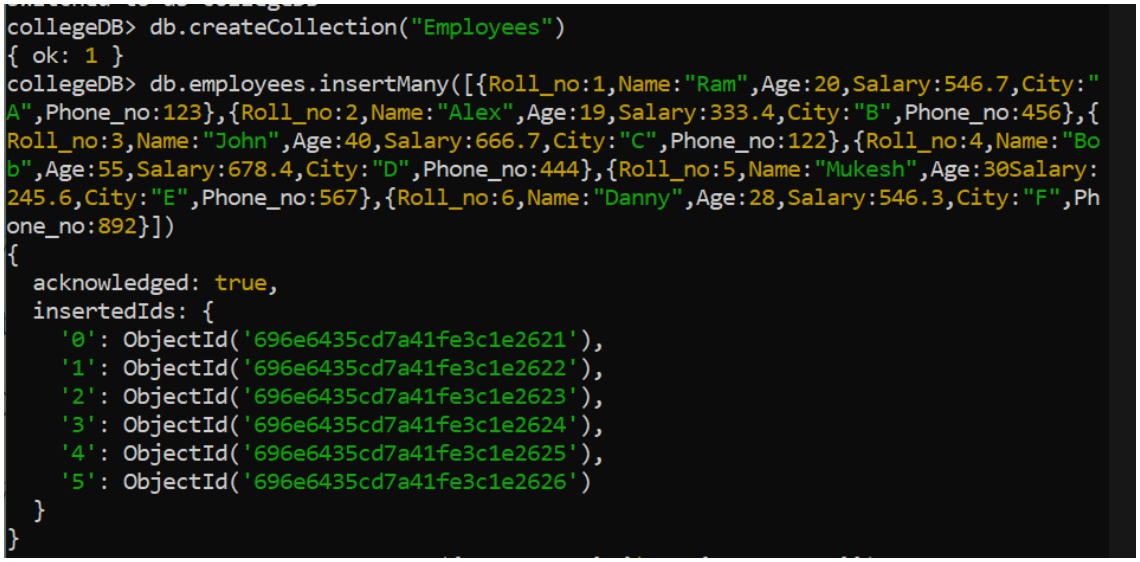
□ Name=["Ram","Alex","John","Bob","Mukesh",”Danny”]

□ Age=[20,19,40,55,30,28]

□ Salary=[546.7,333.4,666.7,678.4,245.6,546.3]

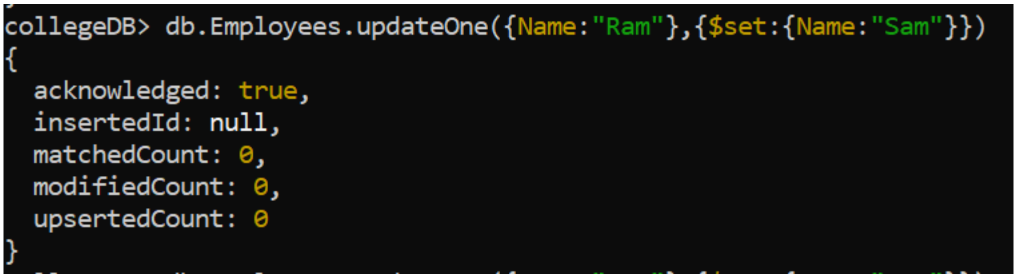
□ City=["A","B","C","D","E",”F”]

□ Phone_no=[123,456,122,444,567,892]



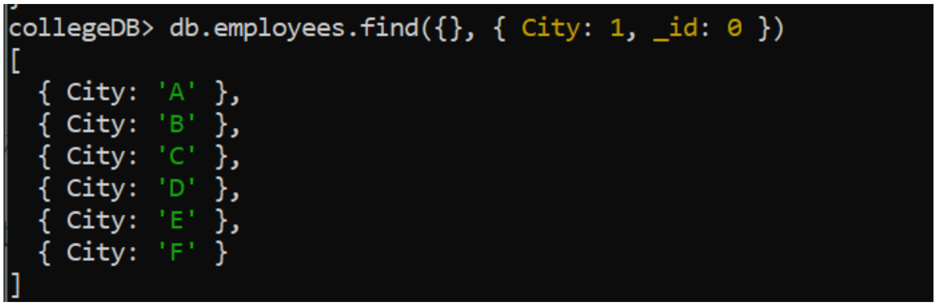
```
collegeDB> db.createCollection("Employees")
{ ok: 1 }
collegeDB> db.employees.insertMany([{Roll_no:1,Name:"Ram",Age:20,Salary:546.7,City:"
A",Phone_no:123},{Roll_no:2,Name:"Alex",Age:19,Salary:333.4,City:"B",Phone_no:456},{
Roll_no:3,Name:"John",Age:40,Salary:666.7,City:"C",Phone_no:122},{Roll_no:4,Name:"Bo
b",Age:55,Salary:678.4,City:"D",Phone_no:444},{Roll_no:5,Name:"Mukesh",Age:30Salary:
245.6,City:"E",Phone_no:567},{Roll_no:6,Name:"Danny",Age:28,Salary:546.3,City:"F",Ph
one_no:892}])
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('696e6435cd7a41fe3c1e2621'),
    '1': ObjectId('696e6435cd7a41fe3c1e2622'),
    '2': ObjectId('696e6435cd7a41fe3c1e2623'),
    '3': ObjectId('696e6435cd7a41fe3c1e2624'),
    '4': ObjectId('696e6435cd7a41fe3c1e2625'),
    '5': ObjectId('696e6435cd7a41fe3c1e2626')
  }
}
```

Q2. Write a query to update the name of RAM to SAM.



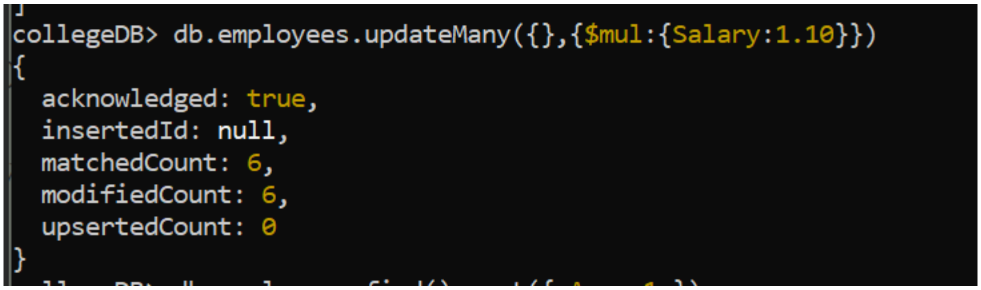
```
collegeDB> db.Employees.updateOne({Name:"Ram"},{$set:{Name:"Sam"}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 0,
  modifiedCount: 0,
  upsertedCount: 0
}
```

Q3. Write a query to display only the cities present in that collection.



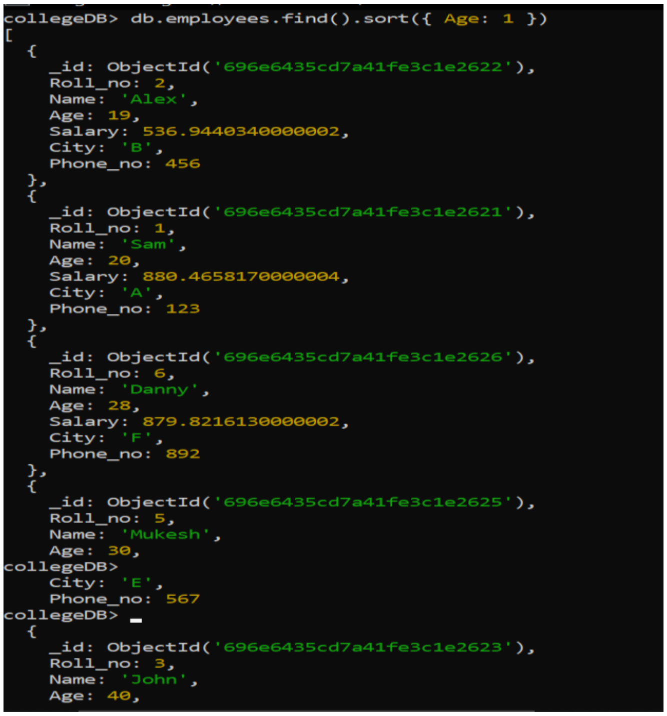
```
collegeDB> db.employees.find({}, { City: 1, _id: 0 })
[
  { City: 'A' },
  { City: 'B' },
  { City: 'C' },
  { City: 'D' },
  { City: 'E' },
  { City: 'F' }
]
```

Q4. Write a query to update the salary by 10%.

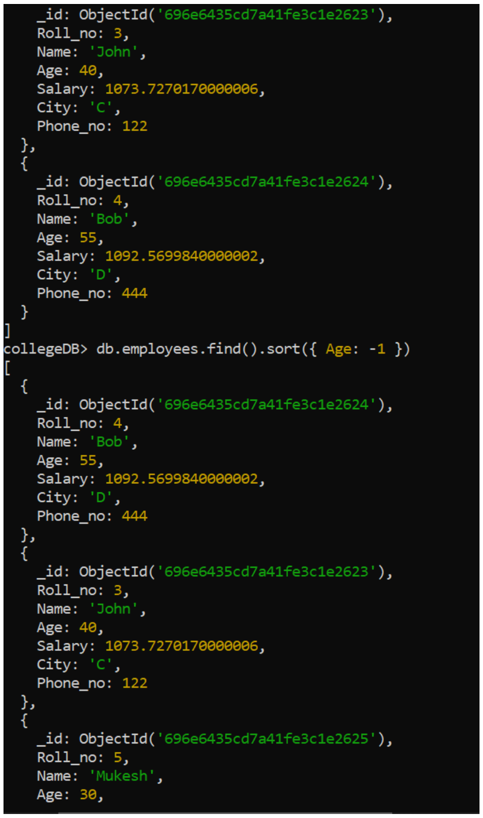


```
collegeDB> db.employees.updateMany({},{$mul:{Salary:1.10}})
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 6,
  modifiedCount: 6,
  upsertedCount: 0
}
```

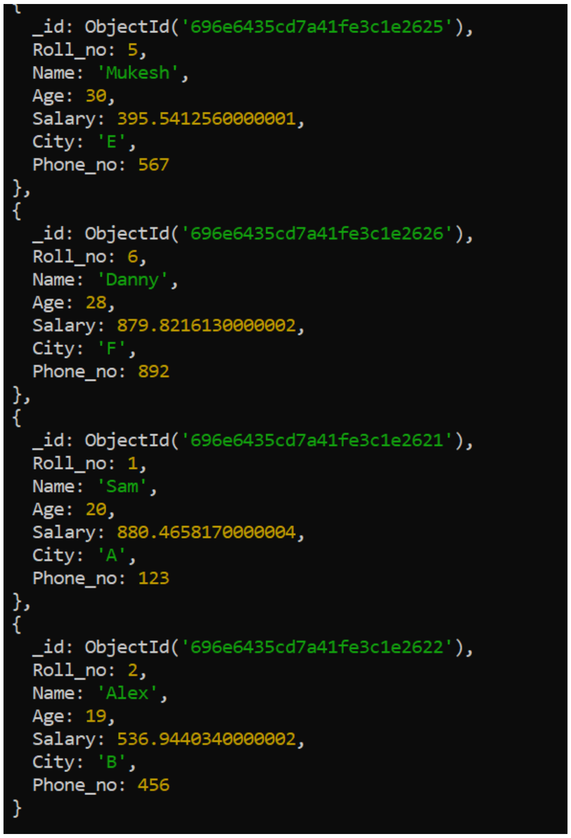
Q5. Write a query to display all the documents in ascending and descending order of age.



```
collegeDB> db.employees.find().sort({ Age: 1 })
[
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2622'),
    Roll_no: 2,
    Name: 'Alex',
    Age: 19,
    Salary: 536.9440340000002,
    City: 'B',
    Phone_no: 456
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2621'),
    Roll_no: 1,
    Name: 'Sam',
    Age: 20,
    Salary: 880.4658170000004,
    City: 'A',
    Phone_no: 123
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2626'),
    Roll_no: 6,
    Name: 'Danny',
    Age: 28,
    Salary: 879.8216130000002,
    City: 'F',
    Phone_no: 892
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2625'),
    Roll_no: 5,
    Name: 'Mukesh',
    Age: 30,
collegeDB>
    City: 'E',
    Phone_no: 567
collegeDB> _
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2623'),
    Roll_no: 3,
    Name: 'John',
    Age: 40,
```

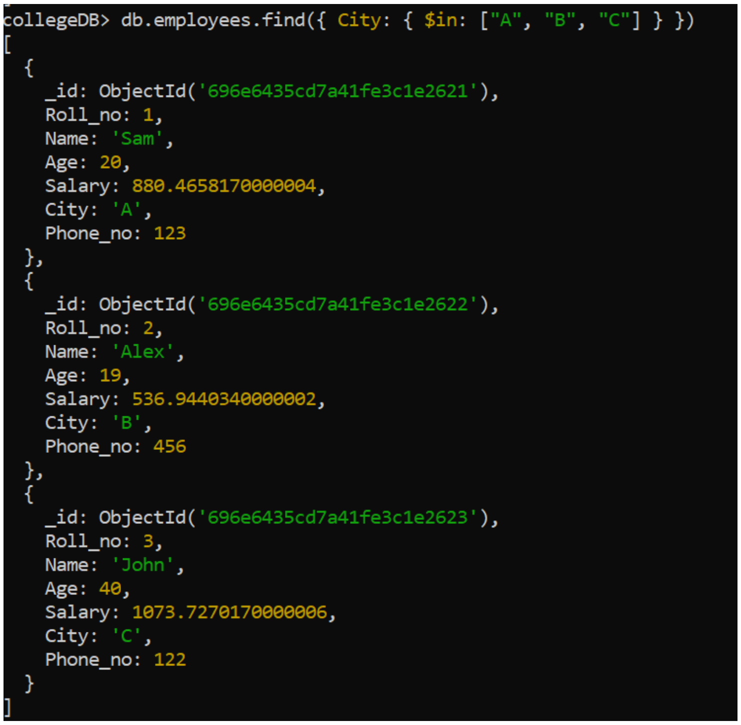


```
    _id: ObjectId('696e6435cd7a41fe3c1e2623'),
    Roll_no: 3,
    Name: 'John',
    Age: 40,
    Salary: 1073.7270170000006,
    City: 'C',
    Phone_no: 122
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2624'),
    Roll_no: 4,
    Name: 'Bob',
    Age: 55,
    Salary: 1092.5699840000002,
    City: 'D',
    Phone_no: 444
  }
]
collegeDB> db.employees.find().sort({ Age: -1 })
[
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2624'),
    Roll_no: 4,
    Name: 'Bob',
    Age: 55,
    Salary: 1092.5699840000002,
    City: 'D',
    Phone_no: 444
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2623'),
    Roll_no: 3,
    Name: 'John',
    Age: 40,
    Salary: 1073.7270170000006,
    City: 'C',
    Phone_no: 122
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2625'),
    Roll_no: 5,
    Name: 'Mukesh',
    Age: 30,
```



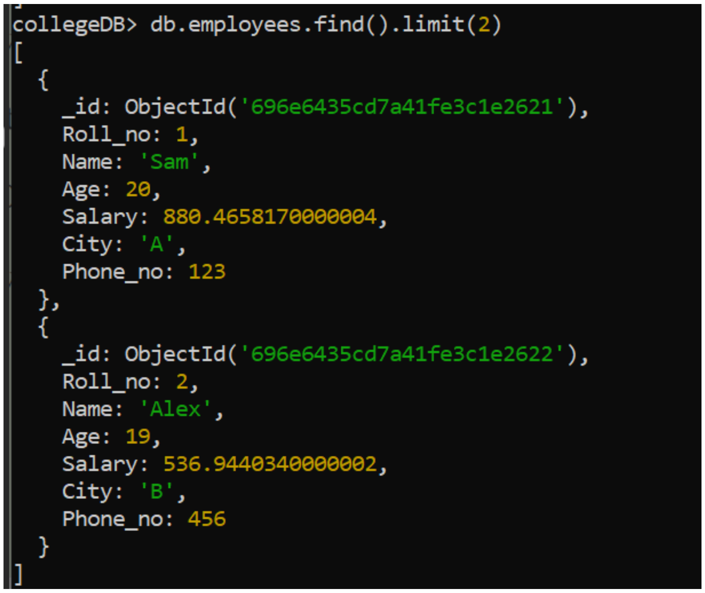
```
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2625'),
    Roll_no: 5,
    Name: 'Mukesh',
    Age: 30,
    Salary: 395.5412560000001,
    City: 'E',
    Phone_no: 567
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2626'),
    Roll_no: 6,
    Name: 'Danny',
    Age: 28,
    Salary: 879.8216130000002,
    City: 'F',
    Phone_no: 892
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2621'),
    Roll_no: 1,
    Name: 'Sam',
    Age: 20,
    Salary: 880.4658170000004,
    City: 'A',
    Phone_no: 123
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2622'),
    Roll_no: 2,
    Name: 'Alex',
    Age: 19,
    Salary: 536.9440340000002,
    City: 'B',
    Phone_no: 456
  }
```

Q6. Write a query to display all the documents with City ❼ A,B,C.



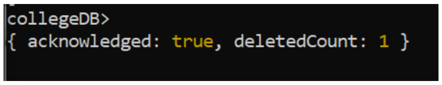
```
collegeDB> db.employees.find({ City: { $in: ["A", "B", "C"] } })
[
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2621'),
    Roll_no: 1,
    Name: 'Sam',
    Age: 20,
    Salary: 880.4658170000004,
    City: 'A',
    Phone_no: 123
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2622'),
    Roll_no: 2,
    Name: 'Alex',
    Age: 19,
    Salary: 536.9440340000002,
    City: 'B',
    Phone_no: 456
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2623'),
    Roll_no: 3,
    Name: 'John',
    Age: 40,
    Salary: 1073.7270170000006,
    City: 'C',
    Phone_no: 122
  }
]
```

Q7. Write a query to display only two documents from the entire collection.



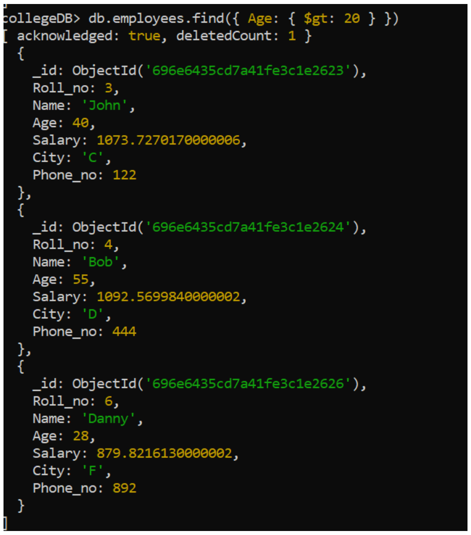
```
collegeDB> db.employees.find().limit(2)
[
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2621'),
    Roll_no: 1,
    Name: 'Sam',
    Age: 20,
    Salary: 880.4658170000004,
    City: 'A',
    Phone_no: 123
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2622'),
    Roll_no: 2,
    Name: 'Alex',
    Age: 19,
    Salary: 536.9440340000002,
    City: 'B',
    Phone_no: 456
  }
]
```

Q8. Write a query to delete a document with ROLL_NO:5.



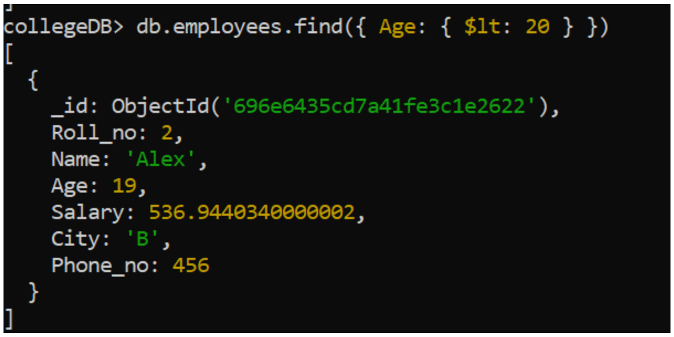
```
collegeDB>
{ acknowledged: true, deletedCount: 1 }
```

Q9. Write a query to display all the documents with AGE greater than 20.



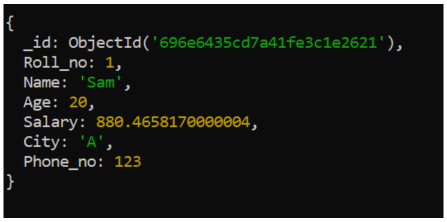
```
ollegeDB> db.employees.find({ Age: { $gt: 20 } })
 acknowledged: true, deletedCount: 1 }
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2623'),
    Roll_no: 3,
    Name: 'John',
    Age: 40,
    Salary: 1073.7270170000006,
    City: 'C',
    Phone_no: 122
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2624'),
    Roll_no: 4,
    Name: 'Bob',
    Age: 55,
    Salary: 1092.5699840000002,
    City: 'D',
    Phone_no: 444
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2626'),
    Roll_no: 6,
    Name: 'Danny',
    Age: 28,
    Salary: 879.8216130000002,
    City: 'F',
    Phone_no: 892
  }
]
```

Q10. Write a query to display all the documents with AGE less than 20.



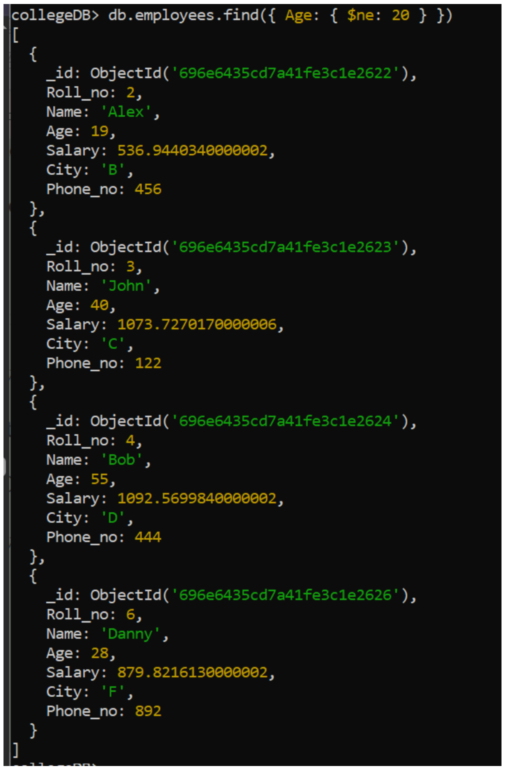
```
collegeDB> db.employees.find({ Age: { $lt: 20 } })
[
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2622'),
    Roll_no: 2,
    Name: 'Alex',
    Age: 19,
    Salary: 536.9440340000002,
    City: 'B',
    Phone_no: 456
  }
]
```

Q11. Write a query to display all the documents with AGE equals to 20.



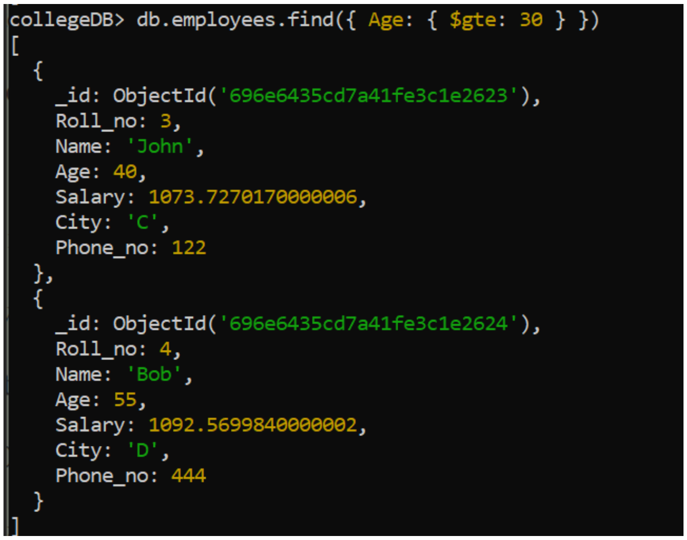
```
{
  _id: ObjectId('696e6435cd7a41fe3c1e2621'),
  Roll_no: 1,
  Name: 'Sam',
  Age: 20,
  Salary: 880.4658170000004,
  City: 'A',
  Phone_no: 123
}
```

Q12. Write a query to display all the documents with AGE not equals to 20.



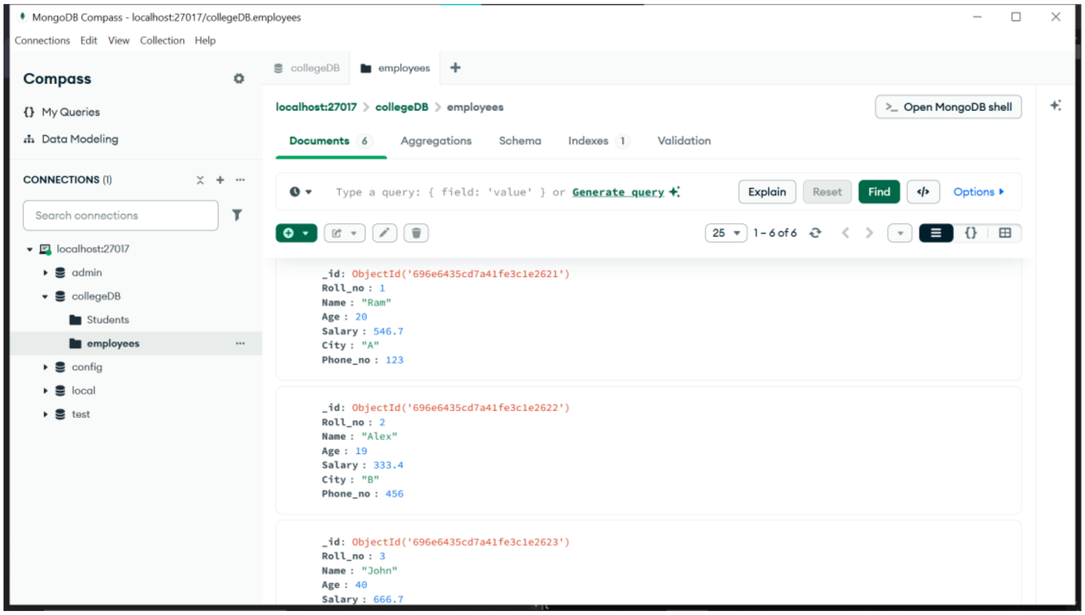
```
collegeDB> db.employees.find({ Age: { $ne: 20 } })
[
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2622'),
    Roll_no: 2,
    Name: 'Alex',
    Age: 19,
    Salary: 536.9440340000002,
    City: 'B',
    Phone_no: 456
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2623'),
    Roll_no: 3,
    Name: 'John',
    Age: 40,
    Salary: 1073.7270170000006,
    City: 'C',
    Phone_no: 122
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2624'),
    Roll_no: 4,
    Name: 'Bob',
    Age: 55,
    Salary: 1092.5699840000002,
    City: 'D',
    Phone_no: 444
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2626'),
    Roll_no: 6,
    Name: 'Danny',
    Age: 28,
    Salary: 879.8216130000002,
    City: 'F',
    Phone_no: 892
  }
]
```

Q13. Write a query to display all the documents where AGE is greater than equals to 30.



```
collegeDB> db.employees.find({ Age: { $gte: 30 } })
[
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2623'),
    Roll_no: 3,
    Name: 'John',
    Age: 40,
    Salary: 1073.7270170000006,
    City: 'C',
    Phone_no: 122
  },
  {
    _id: ObjectId('696e6435cd7a41fe3c1e2624'),
    Roll_no: 4,
    Name: 'Bob',
    Age: 55,
    Salary: 1092.5699840000002,
    City: 'D',
    Phone_no: 444
  }
]
```

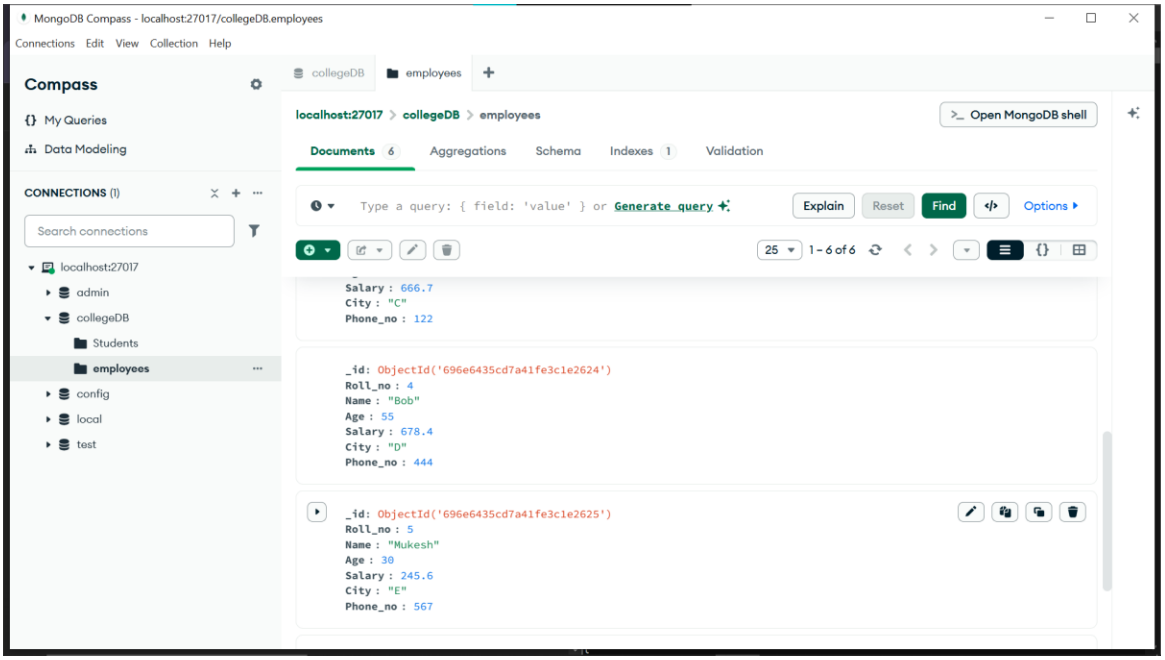
MONGODB COMPASS



```
_id: ObjectId('696e6435cd7a41fe3c1e2621')
Roll_no : 1
Name : "Ram"
Age : 20
Salary : 546.7
City : "A"
Phone_no : 123
```

```
_id: ObjectId('696e6435cd7a41fe3c1e2622')
Roll_no : 2
Name : "Alex"
Age : 19
Salary : 333.4
City : "B"
Phone_no : 456
```

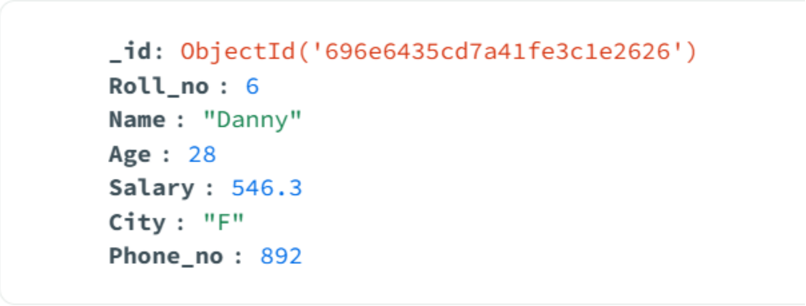
```
_id: ObjectId('696e6435cd7a41fe3c1e2623')
Roll_no : 3
Name : "John"
Age : 40
Salary : 666.7
```



```
Salary : 666.7
City : "C"
Phone_no : 122
```

```
_id: ObjectId('696e6435cd7a41fe3c1e2624')
Roll_no : 4
Name : "Bob"
Age : 55
Salary : 678.4
City : "D"
Phone_no : 444
```

```
_id: ObjectId('696e6435cd7a41fe3c1e2625')
Roll_no : 5
Name : "Mukesh"
Age : 30
Salary : 245.6
City : "E"
Phone_no : 567
```



```
_id: ObjectId('696e6435cd7a41fe3c1e2626')
Roll_no : 6
Name : "Danny"
Age : 28
Salary : 546.3
City : "F"
Phone_no : 892
```