DAY 5

11/07/2025

1. Create a database sms in mongodb.

use sms

**2. Create collection student with fields
name,dateofbirth,city,qualification,email,phone.**
3. Insert one student document.
4. Insert these values into student collection.
's001','rajesh','1980-12-17','kolkata','graduate','rajesh@gmail.com','09830978900'

's002','john','1949-1-7','hyderabad','postgraduate','john@yahoo.com','9833978933'

's003','kunal','1967-2-3','pune','postgraduate','kunal@gmail.com','09830922900'

's004','maya','1990-12-17','kolkata','graduate','maya.com','09830765900'

's005','jadeja','1940-1-23','kolkata','postgraduate','jadeja@yahoo.com','09837865432'

```
db.student.insertMany([
 {
   _id: "s001",
   name: "rajesh",
   dateofbirth: ISODate("1980-12-17"),
   city: "kolkata",
   qualification: "graduate",
   email: "rajesh@gmail.com",
   phone: "09830978900"
 },
 {
   _id: "s002",
   name: "john",
   dateofbirth: ISODate("1949-01-07"),
   city: "hyderabad",
   qualification: "postgraduate",
   email: "john@yahoo.com",
   phone: "9833978933"
 },
 {
   _id: "s003",
   name: "kunal",
```

```
    dateofbirth: ISODate("1967-02-03"),
    city: "pune",
    qualification: "postgraduate",
    email: "kunal@gmail.com",
    phone: "09830922900"
  },
  {
    _id: "s004",
    name: "maya",
    dateofbirth: ISODate("1990-12-17"),
    city: "kolkata",
    qualification: "graduate",
    email: "maya.com",  // Invalid email format, but MongoDB accepts it as a string
    phone: "09830765900"
  },
  {
    _id: "s005",
    name: "jadeja",
    dateofbirth: ISODate("1940-01-23"),
    city: "kolkata",
    qualification: "postgraduate",
    email: "jadeja@yahoo.com",
    phone: "09837865432"
  }
])
```


	_id String	name String	dateofbirth Date	city String	qualification String	e
1	"s001"	"rajesh"	1980-12-17T00:00:00.000+…	"kolkata"	"graduate"	"
2	"s002"	"john"	1949-01-07T00:00:00.000+…	"hyderabad"	"postgraduate"	"
3	"s003"	"kunal"	1967-02-03T00:00:00.000+…	"pune"	"postgraduate"	"
4	"s004"	"maya"	1990-12-17T00:00:00.000+…	"kolkata"	"graduate"	"
5	"s005"	"jadeja"	1940-01-23T00:00:00.000+…	"kolkata"	"postgraduate"	"

5. Use query operators to find
i) Students from city kolkata

db.student.find({ city: "kolkata" })

```
db.student.find({ city: "kolkata" })
{
  _id: 's001',
  name: 'rajesh',
  dateofbirth: 1980-12-17T00:00:00.000Z,
  city: 'kolkata',
  qualification: 'graduate',
  email: 'rajesh@gmail.com',
  phone: '09830978900'
}
{
  _id: 's004',
  name: 'maya',
  dateofbirth: 1990-12-17T00:00:00.000Z,
  city: 'kolkata',
  qualification: 'graduate',
  email: 'maya.com',
  phone: '09830765900'
}
{
  _id: 's005',
  name: 'jadeja',
  dateofbirth: 1940-01-23T00:00:00.000Z,
  city: 'kolkata',
  qualification: 'postgraduate',
  email: 'jadeja@yahoo.com',
  phone: '09837865432'
}
```

ii) Postgraduate students

db.student.find({ qualification: "postgraduate" })

```
{
  _id: 's002',
  name: 'john',
  dateofbirth: 1949-01-07T00:00:00.000Z,
  city: 'hyderabad',
  qualification: 'postgraduate',
  email: 'john@yahoo.com',
  phone: '9833978933'
}
{
  _id: 's003',
  name: 'kunal',
  dateofbirth: 1967-02-03T00:00:00.000Z,
  city: 'pune',
  qualification: 'postgraduate',
  email: 'kunal@gmail.com',
  phone: '09830922900'
}
{
  _id: 's005',
  name: 'jadeja',
  dateofbirth: 1940-01-23T00:00:00.000Z,
  city: 'kolkata',
  qualification: 'postgraduate',
  email: 'jadeja@yahoo.com',
  phone: '09837865432'
}
```

iii)Find number of students in each city

```
db.student.aggregate([
  { $group: { _id: "$city", count: { $sum: 1 } } }
])
```

```
{
  _id: 'hyderabad',
  count: 1
}
{
  _id: 'pune',
  count: 1
}
{
  _id: 'kolkata',
  count: 3
}
```

iv) Sort students based on name.
db.student.find().sort({ name: 1 })