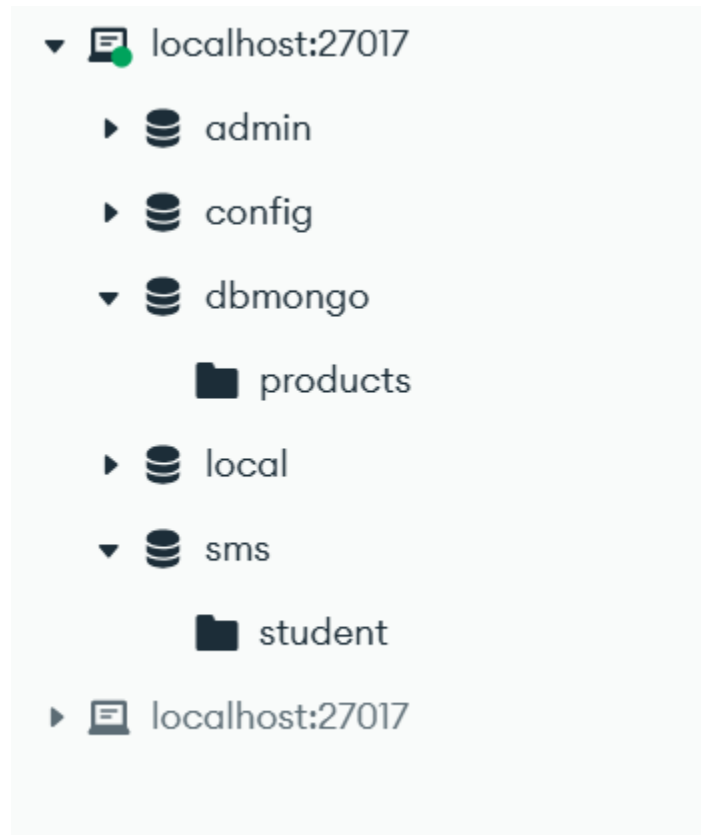


DAY 5

NAME: NANCY M

DATE : 11-07-2025

1. Create a database sms in mongodb.



2. Create collection student with fields name,dateofbirth,city,qualification,email,phone.

```
db.student.insertOne(
  {student_id: "s006",
   name:"sample",
   dateofbirth:new Date ("2004-10-28"),
   city:"cbe",
   qualification:"graduate",
   email:"sample@gmail.com",
   phone:"1234567898"}
);
```

```
< {
  acknowledged: true,
  insertedId: ObjectId('6870fbb6fd3d3e40cdeb6a5e')
}
```

3. Insert one student document.

db.student.find();

```
{
  _id: ObjectId('6870fbb6fd3d3e40cdeb6a5e'),
  student_id: 's006',
  name: 'sample',
  dateofbirth: 2004-10-28T00:00:00.000Z,
  city: 'cbe',
  qualification: 'graduate',
  email: 'sample@gmail.com',
  phone: '1234567898'
}
```

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([
  {
    student_id: "s001",
    name: "rajesh",
    dateofbirth: new Date("1980-12-17"),
    city: "kolkata",
    qualification: "graduate",
    email: "rajesh@gmail.com",
    phone: "09830978900"
  },
  {
    student_id: "s002",
    name: "john",
    dateofbirth: new Date("1949-01-07"),
    city: "hyderabad",
    qualification: "postgraduate",
    email: "john@yahoo.com",
    phone: "9833978933"
  },
  {
    student_id: "s003",
    name: "kunal",
    dateofbirth: new Date("1967-02-03"),
    city: "pune",
    qualification: "postgraduate",
    email: "kunal@gmail.com",
    phone: "09830922900"
  },
  {
    student_id: "s004",
    name: "maya",
    dateofbirth: new Date("1990-12-17"),
    city: "kolkata",
    qualification: "graduate",
    email: "maya@gmail.com",
    phone: "09830765900"
  },
  {
    student_id: "s005",
```

```

    name: "jadeja",
    dateofbirth: new Date("1940-01-23"),
    city: "kolkata",
    qualification: "postgraduate",
    email: "jadeja@yahoo.com",
    phone: "09837865432"
  },
  {
    student_id: "s006",
    name: "sample",
    dateofbirth: new Date("2004-10-28"),
    city: "cbe",
    qualification: "graduate",
    email: "sample@gmail.com",
    phone: "1234567898"
  }
]);

```

```

{
  _id: ObjectId('6870fcc3fd3d3e40cdeb6a5f'),
  student_id: 's001',
  name: 'rajesh',
  dateofbirth: 1980-12-17T00:00:00.000Z,
  city: 'kolkata',
  qualification: 'graduate',
  email: 'rajesh@gmail.com',
  phone: '09830978900'
}
{
  _id: ObjectId('6870fcc3fd3d3e40cdeb6a60'),
  student_id: 's002',
  name: 'john',
  dateofbirth: 1949-01-07T00:00:00.000Z,
  city: 'hyderabad',
  qualification: 'postgraduate',
  email: 'john@yahoo.com',
  phone: '9833978933'
}

```

```
{
  _id: ObjectId('6870fcc3fd3d3e40cdeb6a61'),
  student_id: 's003',
  name: 'kunal',
  dateofbirth: 1967-02-03T00:00:00.000Z,
  city: 'pune',
  qualification: 'postgraduate',
  email: 'kunal@gmail.com',
  phone: '09830922900'
}
{
  _id: ObjectId('6870fcc3fd3d3e40cdeb6a62'),
  student_id: 's004',
  name: 'maya',
  dateofbirth: 1990-12-17T00:00:00.000Z,
  city: 'kolkata',
  qualification: 'graduate',
  email: 'maya@gmail.com',
  phone: '09830765900'
}
```

```
{
  _id: ObjectId('6870fcc3fd3d3e40cdeb6a63'),
  student_id: 's005',
  name: 'jadeja',
  dateofbirth: 1940-01-23T00:00:00.000Z,
  city: 'kolkata',
  qualification: 'postgraduate',
  email: 'jadeja@yahoo.com',
  phone: '09837865432'
}
{
  _id: ObjectId('6870fcc3fd3d3e40cdeb6a64'),
  student_id: 's006',
  name: 'sample',
  dateofbirth: 2004-10-28T00:00:00.000Z,
  city: 'cbe',
  qualification: 'graduate',
  email: 'sample@gmail.com',
  phone: '1234567898'
}
```

5. Use query operators to find

- i) Students from city kolkata
- ii) Postgraduate students
- iii) Find number of students in each city
- iv) Sort students based on name.

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

```
{
  _id: ObjectId('6870fcc3fd3d3e40cdeb6a5f'),
  student_id: 's001',
  name: 'rajesh',
  dateofbirth: 1980-12-17T00:00:00.000Z,
  city: 'kolkata',
  qualification: 'graduate',
  email: 'rajesh@gmail.com',
  phone: '09830978900'
}
{
  _id: ObjectId('6870fcc3fd3d3e40cdeb6a62'),
  student_id: 's004',
  name: 'maya',
  dateofbirth: 1990-12-17T00:00:00.000Z,
  city: 'kolkata',
  qualification: 'graduate',
  email: 'maya@gmail.com',
  phone: '09830765900'
}
```

```
{
  _id: ObjectId('6870fcc3fd3d3e40cdeb6a63'),
  student_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: ObjectId('6870fcc3fd3d3e40cdeb6a60'),
  student_id: 's002',
  name: 'john',
  dateofbirth: 1949-01-07T00:00:00.000Z,
  city: 'hyderabad',
  qualification: 'postgraduate',
  email: 'john@yahoo.com',
  phone: '9833978933'
}
{
  _id: ObjectId('6870fcc3fd3d3e40cdeb6a61'),
  student_id: 's003',
  name: 'kunal',
  dateofbirth: 1967-02-03T00:00:00.000Z,
  city: 'pune',
  qualification: 'postgraduate',
  email: 'kunal@gmail.com',
  phone: '09830922900'
}
```

```
{
  _id: ObjectId('6870fcc3fd3d3e40cdeb6a63'),
  student_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",
    student_count: { $sum: 1 } }
  }
]);
```

```
{
  _id: 'kolkata',
  student_count: 3
}
{
  _id: 'hyderabad',
  student_count: 1
}
{
  _id: 'cbe',
  student_count: 2
}
{
  _id: 'pune',
  student_count: 1
}
```


iv) Sort students based on name.

```
db.student.aggregate([
  { $sort: { name: 1 } },
  { $project: { name: 1, _id: 0 } }
]);
```

```
{
  name: 'jadeja'
}
{
  name: 'john'
}
{
  name: 'kunal'
}
{
  name: 'maya'
}
{
  name: 'rajesh'
}
{
  name: 'sample'
}
{
  name: 'sample'
}
```