

day 5

11/07/2025

1. Create a database sms in monodb

use sms

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

```
db.createCollection("student")
```

3. insert one student values into student collection

```
db.student.insertOne(  
  {  
    _id:"s001",  
    name:"rajesh",  
    dateofbirth:new Date("1980-12-17"),  
    city:"kolkata",  
    qualification:"graduate",  
    email:"rajesh@gmail.com",  
    phone:"09830978900"  
  }  
)
```

4. insert many values into student table

```
db.student.insertMany([  
  {  
    _id:"s002",  
    name:"john",  
    dateofbirth:new Date("1949-01-17"),
```

```
    city:"hyderabad",
    qualification:"postgraduate",
    email:"john@gmail.com",
    phone:"9822334455"
  },
{
  _id:"s003",
  name:"kunal",
  dateofbirth:new Date("1967-02-03"),
  city:"pune",
  qualification:"postgraduate",
  email:"kunal@gmail.com",
  phone:"09834978900"
},
{
  _id:"s004",
  name:"maya",
  dateofbirth:new Date("1990-12-17"),
  city:"kolkata",
  qualification:"graduate",
  email:"maya@gmail.com",
  phone:"09830988900"
},
{
  _id:"s005",
  name:"jadeja",
```

```
    dateofbirth:new Date("1940-01-17"),  
    city:"kolkata",  
    qualification:"postgraduate",  
    email:"jadeja@gmail.com",  
    phone:"09839978900"  
  }  
])
```

5. use query operations to find

(i) students from city kolkata

```
db.student.aggregate(  
  {$match:{"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@gmail.com',
  phone: '09830988900'
}
{
  _id: 's005',
  name: 'jadeja',
  dateofbirth: 1940-01-17T00:00:00.000Z,
  city: 'kolkata',
  qualification: 'postgraduate',
  email: 'jadeja@gmail.com',

```

(ii)select postgraduate students

```

db.student.aggregate(
  {$match:{"qualification":"postgraduate"}}
)

```

```

< {
  _id: 's002',
  name: 'john',
  dateofbirth: 1949-01-17T00:00:00.000Z,
  city: 'hyderbad',
  qualification: 'postgraduate',
  email: 'john@gmail.com',
  phone: '9822334455'
}
{
  _id: 's003',
  name: 'kunal',
  dateofbirth: 1967-02-03T00:00:00.000Z,
  city: 'pune',
  qualification: 'postgraduate',
  email: 'kunal@gmail.com',
  phone: '09834978900'
}
{
  _id: 's005',
  name: 'jadeja',
  dateofbirth: 1940-01-17T00:00:00.000Z,
  city: 'kolkata',
  qualification: 'postgraduate',

```

(iii) find no of students in each city

```

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

```

])

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

(iv) sort the students based on name

```
db.student.aggregate([
```

```
{
  $sort: {
    name:1
  }
}
```

])

```
< {
  _id: 's005',
  name: 'jadeja',
  dateofbirth: 1940-01-17T00:00:00.000Z,
  city: 'kolkata',
  qualification: 'postgraduate',
  email: 'jadeja@gmail.com',
  phone: '09839978900'
}
{
  _id: 's002',
  name: 'john',
  dateofbirth: 1949-01-17T00:00:00.000Z,
  city: 'hyderbad',
  qualification: 'postgraduate',
  email: 'john@gmail.com',
  phone: '9822334455'
}
{
  _id: 's003',
  name: 'kunal',
  dateofbirth: 1967-02-03T00:00:00.000Z,
  city: 'pune',
  qualification: 'postgraduate',
  email: 'kunal@gmail.com'
```