

TASK 5

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1. Create or DatabaseSMS

```
use sms
```

2. Create STUDENT Collection

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

3. Insert One Student Document

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

```
db["student"].find()
{
  _id: ObjectId('6870f6e2dae73fb202920f45'),
  sid: 's001',
  name: 'rajesh',
  dateofbirth: 1980-12-17T00:00:00.000Z,
  city: 'kolkata',
  qualification: 'graduate',
  email: 'rajesh@gmail.com',
  phone: '09830978900'
}
```

4. Insert Multiple Students

```
db.student.insertMany([
  {
    sid: 's002',
    name: 'john',
    dateofbirth: new Date('1949-01-07'),
    city: 'hyderabad',
    qualification: 'postgraduate',
    email: 'john@yahoo.com',
    phone: '9833978933'
  },
  {
    sid: 's003',
    name: 'kunal',
    dateofbirth: new Date('1967-02-03'),
    city: 'pune',
    qualification: 'postgraduate',
    email: 'kunal@gmail.com',
    phone: '09830922900'
  },
  {
    sid: 's004',
    name: 'maya',
    dateofbirth: new Date('1990-12-17'),
    city: 'kolkata',
    qualification: 'graduate',
    email: 'maya.com',
    phone: '09830765900'
  },
  {
    sid: 's005',
    name: 'jadeja',
    dateofbirth: new Date('1940-01-23'),
    city: 'kolkata',
    qualification: 'postgraduate',
    email: 'jadeja@yahoo.com',
    phone: '09837865432'
  }
])
```

```

{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('6870f6f7dae73fb202920f46'),
    '1': ObjectId('6870f6f7dae73fb202920f47'),
    '2': ObjectId('6870f6f7dae73fb202920f48'),
    '3': ObjectId('6870f6f7dae73fb202920f49')
  }
}
db.student.find({ city: "kolkata" }).pretty()

```

5. Queries using Shell

I. Students from city kolkata

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

```

{
  _id: ObjectId('6870f6e2dae73fb202920f45'),
  sid: 's001',
  name: 'rajesh',
  dateofbirth: 1980-12-17T00:00:00.000Z,
  city: 'kolkata',
  qualification: 'graduate',
  email: 'rajesh@gmail.com',
  phone: '09830978900'
}
{
  _id: ObjectId('6870f6f7dae73fb202920f48'),
  sid: 's004',
  name: 'maya',
  dateofbirth: 1990-12-17T00:00:00.000Z,
  city: 'kolkata',
  qualification: 'graduate',
  email: 'maya.com',
  phone: '09830765900'
}

```

II. Postgraduate students

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

```
{
  _id: ObjectId('6870f6f7dae73fb202920f46'),
  sid: 's002',
  name: 'john',
  dateofbirth: 1949-01-07T00:00:00.000Z,
  city: 'hyderabad',
  qualification: 'postgraduate',
  email: 'john@yahoo.com',
  phone: '9833978933'
}
{
  _id: ObjectId('6870f6f7dae73fb202920f47'),
  sid: 's003',
  name: 'kunal',
  dateofbirth: 1967-02-03T00:00:00.000Z,
  city: 'pune',
  qualification: 'postgraduate',
  email: 'kunal@gmail.com',
  phone: '09830922900'
}
```

III. Count of Students in Each City

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

```
db.student.aggregate([
  { $group: { _id: "$city", count: { $sum: 1 } } }
])
{
  _id: 'hyderabad',
  count: 1
}
{
  _id: 'kolkata',
  count: 3
}
{
  _id: 'pune',
  count: 1
}
```

IV. Sort students based on name (A-Z)

```
db.student.find().sort({ name: 1 }).pretty()
```

```
{
  _id: ObjectId('6870f6f7dae73fb202920f49'),
  sid: 's005',
  name: 'jadeja',
  dateofbirth: 1940-01-23T00:00:00.000Z,
  city: 'kolkata',
  qualification: 'postgraduate',
  email: 'jadeja@yahoo.com',
  phone: '09837865432'
}
{
  _id: ObjectId('6870f6f7dae73fb202920f46'),
  sid: 's002',
  name: 'john',
  dateofbirth: 1949-01-07T00:00:00.000Z,
  city: 'hyderabad',
  qualification: 'postgraduate',
  email: 'john@yahoo.com',
  phone: '9833978933'
}
```