MongoDB CRUD Operations Example - School Database

Database: `school` Collection: `students` Fields: `name` , `sem` , `rollno` , `hobbies`

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1. Create / Select Database

```
use school
```

---

2. Create Collection

```
db.createCollection("students")
```

---

3. Insert Documents

Insert One

```
db.students.insertOne({
  name: "Sairam",
  sem: 5,
  rollno: 101,
  hobbies: ["coding", "reading"]
})
```

Insert Many

```
db.students.insertMany([
  {
    name: "Anita",
    sem: 3,
    rollno: 102,
    hobbies: ["painting", "music"]
  },
  {
    name: "Rahul",
    sem: 5,
    rollno: 103,
    hobbies: ["cricket", "gaming"]
  },
  {
    name: "Priya",
    sem: 7,
```

```
      rollno: 104,
      hobbies: ["dance", "traveling"]
    }
])
```

4. Read Documents

Find One

```
db.students.findOne({ rollno: 101 })
```

Find Many

```
db.students.find({ sem: 5 })
```

Optional (pretty print):

```
db.students.find({ sem: 5 }).pretty()
```

5. Update Documents

Update One

```
db.students.updateOne(
  { rollno: 101 },              // filter
  { $set: { sem: 6 } }          // update
)
```

Update Many

```
db.students.updateMany(
  { sem: 5 },                    // filter
  { $push: { hobbies: "chess" } } // add hobby for all sem 5 students
)
```

6. Delete Documents

Delete One

```
db.students.deleteOne({ rollno: 104 })
```

Delete Many

```
db.students.deleteMany({ sem: 3 })
```

This document provides a **complete CRUD cycle** in MongoDB with examples for **single and multiple documents**.