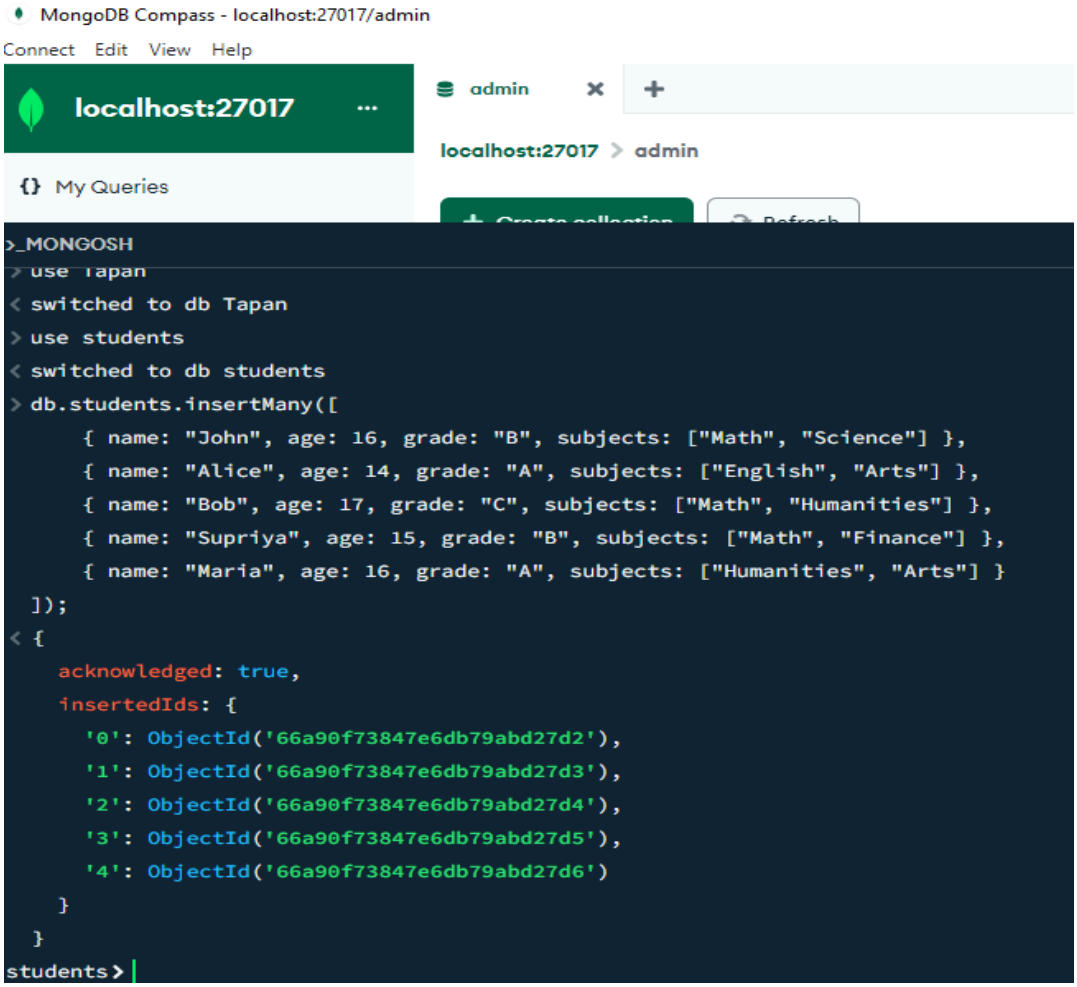
Mongo DB

1)Create: Insert multiple documents into a collection called students with fields such as name, age, grade, and subjects.

Answer:-

Use students

```
db.students.insertMany([
    { name: "John", age: 16, grade: "B", subjects: ["Math", "Science"] },
    { name: "Alice", age: 14, grade: "A", subjects: ["English", "Arts"] },
    { name: "Bob", age: 17, grade: "C", subjects: ["Math", "Humanities"] },
    { name: "Supriya", age: 15, grade: "B", subjects: ["Math", "Finance"] },
    { name: "Maria", age: 16, grade: "A", subjects: ["Humanities", "Arts"] }
]);
```

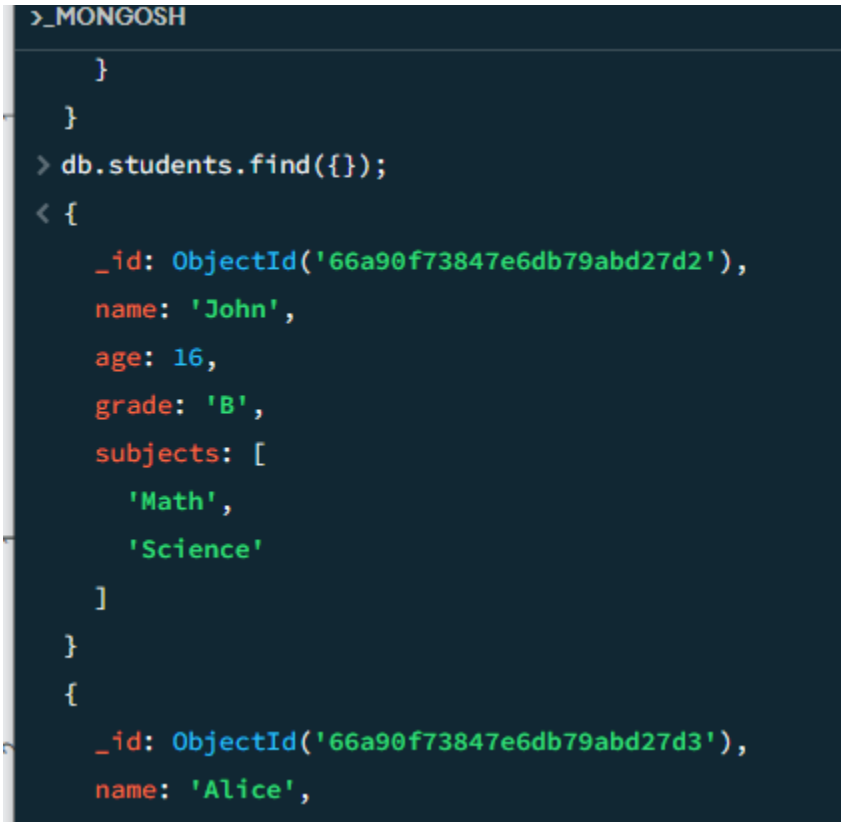


Read Operations

1.Find all students:

Answer:-

db.students.find({});



2.Find students who are older than 15 years:

Answer:-

db.students.find({ age: { $gt: 15 } });

```
>_MONGOSH
  db.students.find({ age: { $gt: 15 } });
< {
    _id: ObjectId('66a90f73847e6db79abd27d2'),
    name: 'John',
    age: 16,
    grade: 'B',
    subjects: [
      'Math',
      'Science'
    ]
  }
  {
    _id: ObjectId('66a90f73847e6db79abd27d4'),
    name: 'Bob',
    age: 17,
    grade: 'C',
```

3.Find students who have "Math" as one of their subjects:

Answer
db.students.find({ subjects: "Math" });

```
>_MONGOSH
  db.students.find({ subjects: "Math" });
< {
    _id: ObjectId('66a90f73847e6db79abd27d2'),
    name: 'John',
    age: 16,
    grade: 'B',
    subjects: [
      'Math',
      'Science'
    ]
  }
  {
    _id: ObjectId('66a90f73847e6db79abd27d4'),
    name: 'Bob',
    age: 17,
    grade: 'C',
    subjects: [
      'Math',
```

4.Find students who have "Math" and "Humanities" subjects:

Answer:-

db.students.find({ subjects: { $all: ["Math", "Humanities"] } });

```
  }
> db.students.find({ subjects: { $all: ["Math", "Humanities"] } });
< {
    _id: ObjectId('66a90f73847e6db79abd27d4'),
    name: 'Bob',
    age: 17,
    grade: 'C',
    subjects: [
      'Math',
      'Humanities'
    ]
  }
students>
```

5.Find students who do not have both "Finance" and "Arts" subjects:

Answer:-

db.students.find({ $nor: [{ subjects: "Finance" }, { subjects: "Arts" }] });

Update Operation

7.To update the grade of a student named "Supriya" to "A":

Answer:

```
db.students.updateOne(
   { name: "Supriya" },
   { $set: { grade: "A" } }
);
```

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```
db.students.updateOne(
    { name: "Supriya" },
    { $set: { grade: "A" } }
);
{
  acknowledged: true,
  insertedId: null,
  matchedCount: 1,
  modifiedCount: 1,
  upsertedCount: 0
}
```