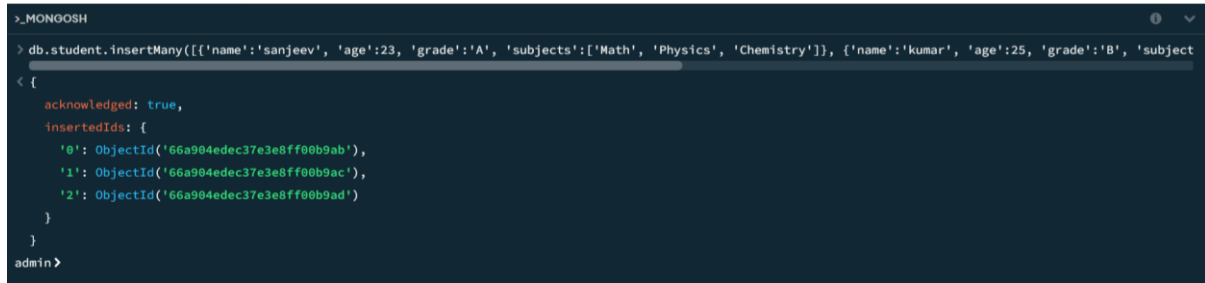


4 – DAY – TASK (30-07-2024)

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



```
>_MONGOSH
> db.student.insertMany([{'name':'sanjeev', 'age':23, 'grade':'A', 'subjects':['Math', 'Physics', 'Chemistry']}, {'name':'kumar', 'age':25, 'grade':'B', 'subject
< {
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('66a904edec37e3e8ff00b9ab'),
    '1': ObjectId('66a904edec37e3e8ff00b9ac'),
    '2': ObjectId('66a904edec37e3e8ff00b9ad')
  }
}
admin>
```

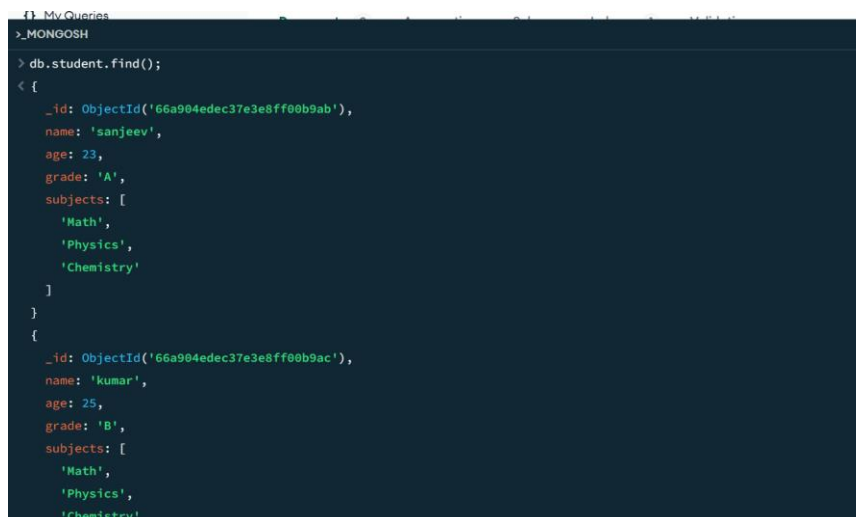
Query: -

```
db.student.insertMany([{'name':'sanjeev', 'age':23, 'grade':'A',
'subjects':['Math', 'Physics', 'Chemistry']}, {'name':'kumar',
'age':25, 'grade':'B', 'subjects':['Math','Physics', 'Chemistry']},
{'name':'pavan', 'age':22, 'grade':'A', 'subjects':['Math',
'Physics', 'Chemistry']}]]);
```

Output: -

```
{
  acknowledged: true,
  insertedIds: {
    '0': ObjectId('66a904edec37e3e8ff00b9ab'),
    '1': ObjectId('66a904edec37e3e8ff00b9ac'),
    '2': ObjectId('66a904edec37e3e8ff00b9ad')
  }
}
```

2. **Find all students.**



```
(1) My Queries
>_MONGOSH
> db.student.find();
< {
  _id: ObjectId('66a904edec37e3e8ff00b9ab'),
  name: 'sanjeev',
  age: 23,
  grade: 'A',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}
{
  _id: ObjectId('66a904edec37e3e8ff00b9ac'),
  name: 'kumar',
  age: 25,
  grade: 'B',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}
```

Query: -

```
db.student.find();
```

Output: -

```
{
  _id: ObjectId('66a904edec37e3e8ff00b9ab'),
  name: 'sanjeev',
  age: 23,
  grade: 'A',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}
{
  _id: ObjectId('66a904edec37e3e8ff00b9ac'),
  name: 'kumar',
  age: 25,
  grade: 'B',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}
{
  _id: ObjectId('66a904edec37e3e8ff00b9ad'),
  name: 'pavan',
  age: 22,
  grade: 'A',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}
```

3. Find students who are older than 15 years.

```

>_MONGOSH
> db.student.find({'age':{$gt:15}});
< {
  _id: ObjectId('66a904edec37e3e8ff00b9ab'),
  name: 'sanjeev',
  age: 23,
  grade: 'A',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}
{
  _id: ObjectId('66a904edec37e3e8ff00b9ac'),
  name: 'kumar',
  age: 25,
  grade: 'B',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}

```

Query: -

```
db.student.find({'age':{$gt:15}});
```

Output: -

```

{
  _id: ObjectId('66a904edec37e3e8ff00b9ab'),
  name: 'sanjeev',
  age: 23,
  grade: 'A',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}
{
  _id: ObjectId('66a904edec37e3e8ff00b9ac'),
  name: 'kumar',
  age: 25,
  grade: 'B',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}
{
  _id: ObjectId('66a904edec37e3e8ff00b9ad'),

```

```

name: 'pavan',
age: 22,
grade: 'A',
subjects: [
  'Math',
  'Physics',
  'Chemistry'
]
}

```

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

```

>_MONGOOSH
<
> db.student.find({'subjects':'Math'});
< {
  _id: ObjectId('66a904edec37e3e8ff00b9ab'),
  name: 'sanjeev',
  age: 23,
  grade: 'A',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}
{
  _id: ObjectId('66a904edec37e3e8ff00b9ac'),
  name: 'kumar',
  age: 25,
  grade: 'B',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}

```

```

>_MONGOOSH
> db.student.find({'subjects':{$eq:'Math'}});
< {
  _id: ObjectId('66a904edec37e3e8ff00b9ab'),
  name: 'sanjeev',
  age: 23,
  grade: 'A',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}
{
  _id: ObjectId('66a904edec37e3e8ff00b9ac'),
  name: 'kumar',
  age: 25,
  grade: 'B',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}

```

Queries: -

1. `db.student.find({'subjects':'Math'})`;
2. `db.student.find({'subjects':{$eq:'Math'}})`;

Output: -

```

{
  _id: ObjectId('66a904edec37e3e8ff00b9ab'),

```

```

    name: 'sanjeev',
    age: 23,
    grade: 'A',
    subjects: [
      'Math',
      'Physics',
      'Chemistry'
    ]
  }
  {
    _id: ObjectId('66a904edec37e3e8ff00b9ac'),
    name: 'kumar',
    age: 25,
    grade: 'B',
    subjects: [
      'Math',
      'Physics',
      'Chemistry'
    ]
  }
  {
    _id: ObjectId('66a904edec37e3e8ff00b9ad'),
    name: 'pavan',
    age: 22,
    grade: 'A',
    subjects: [
      'Math',
      'Physics',
      'Chemistry'
    ]
  }
}

```

5. Find students who have "Math" and “Humanities” subjects.

```

> db.student.find({$and:[{'subjects':{$eq:'Math'}},{'subjects':{$eq:'Humanities'}}]});
<

```

Query:

```
db.student.find({$and:[{'subjects':{$eq:'Math'}},{'subjects':{$eq:'Humanities'}}]});
```

Output: None of the students in my collection had maths and humanities subjects.

6. Find students who not have both "Finance" and "Arts" subjects.

```
>_MONGOSH
> db.student.find({$nor:[{'subjects':{$all:['Finance', 'Arts']}}]});
< {
  _id: ObjectId('66a904edec37e3e8ff00b9ab'),
  name: 'sanjeev',
  age: 23,
  grade: 'A',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}
{
  _id: ObjectId('66a904edec37e3e8ff00b9ac'),
  name: 'kumar',
  age: 25,
  grade: 'B',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}
```

Query: -

```
db.student.find({$nor:[{'subjects':{$all:['Finance',
'Arts']}}]});
```

Output: -

```
{
  _id: ObjectId('66a904edec37e3e8ff00b9ab'),
  name: 'sanjeev',
  age: 23,
  grade: 'A',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}
{
  _id: ObjectId('66a904edec37e3e8ff00b9ac'),
  name: 'kumar',
  age: 25,
  grade: 'B',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}
```

```

{
  _id: ObjectId('66a904edec37e3e8ff00b9ad'),
  name: 'pavan',
  age: 22,
  grade: 'A',
  subjects: [
    'Math',
    'Physics',
    'Chemistry'
  ]
}

```

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



```

> db.student.updateOne({'name': 'Supriya'}, {$set: {'grade': 'A'}});
< {
  acknowledged: true,
  insertedId: null,
  matchedCount: 0,
  modifiedCount: 0,
  upsertedCount: 0
}
admin>

```

Query:

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

Output:

```

{
  acknowledged: true,
  insertedId: null,
  matchedCount: 0,
  modifiedCount: 0,
  upsertedCount: 0
}

```