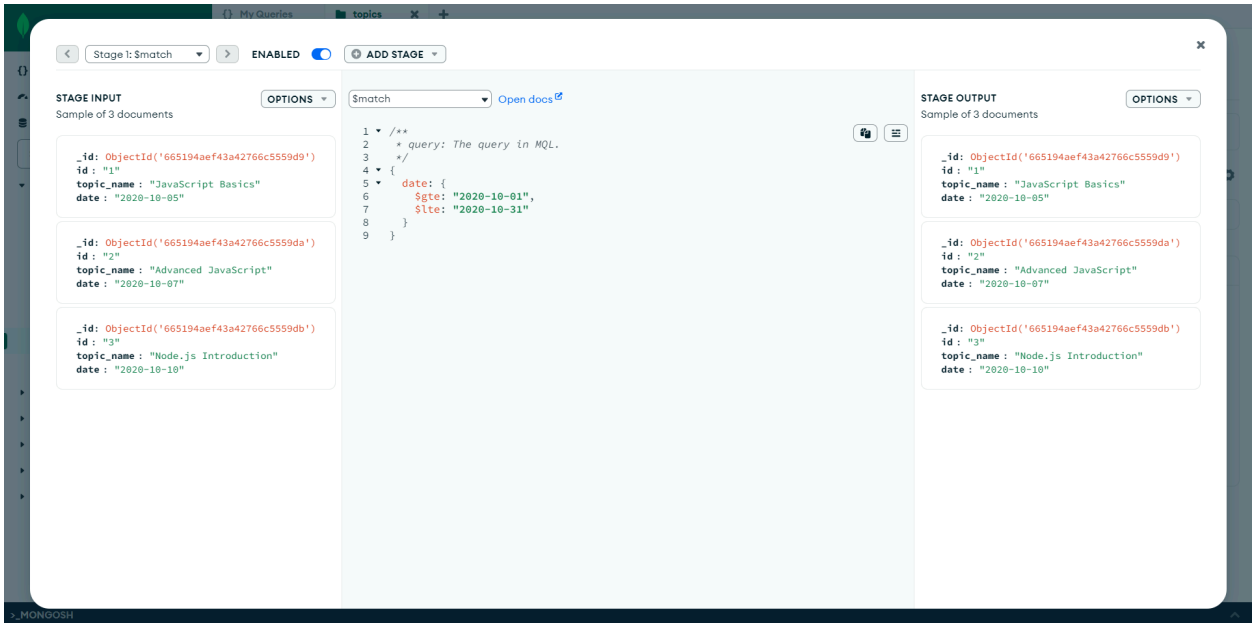
MongoDB Task - 2

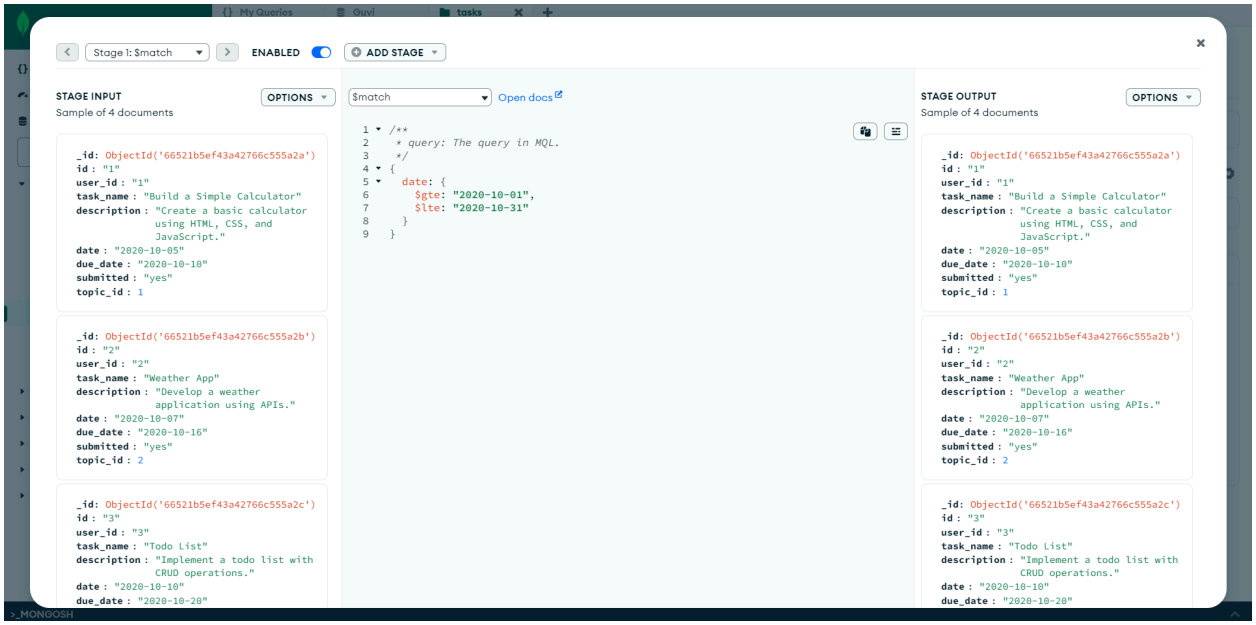
1.Find all the topics and tasks which are taught in the month of October

MongoDB Compass:

Topics were taught in the month of October:

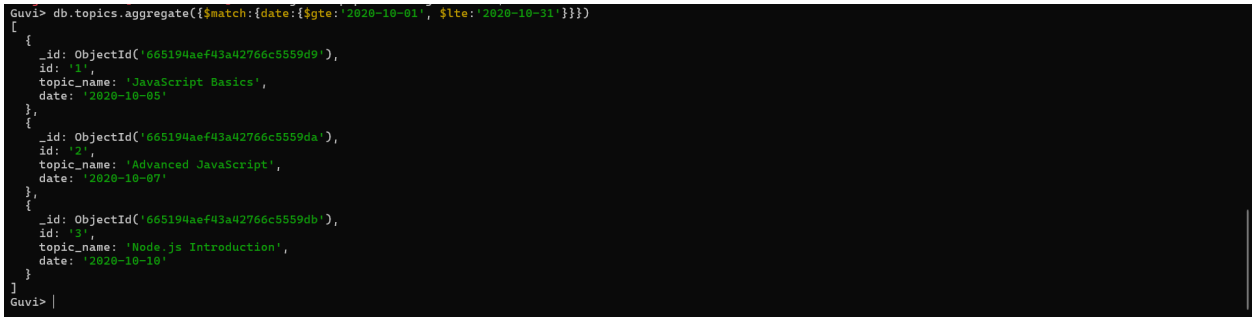


Tasks were given in the month of October

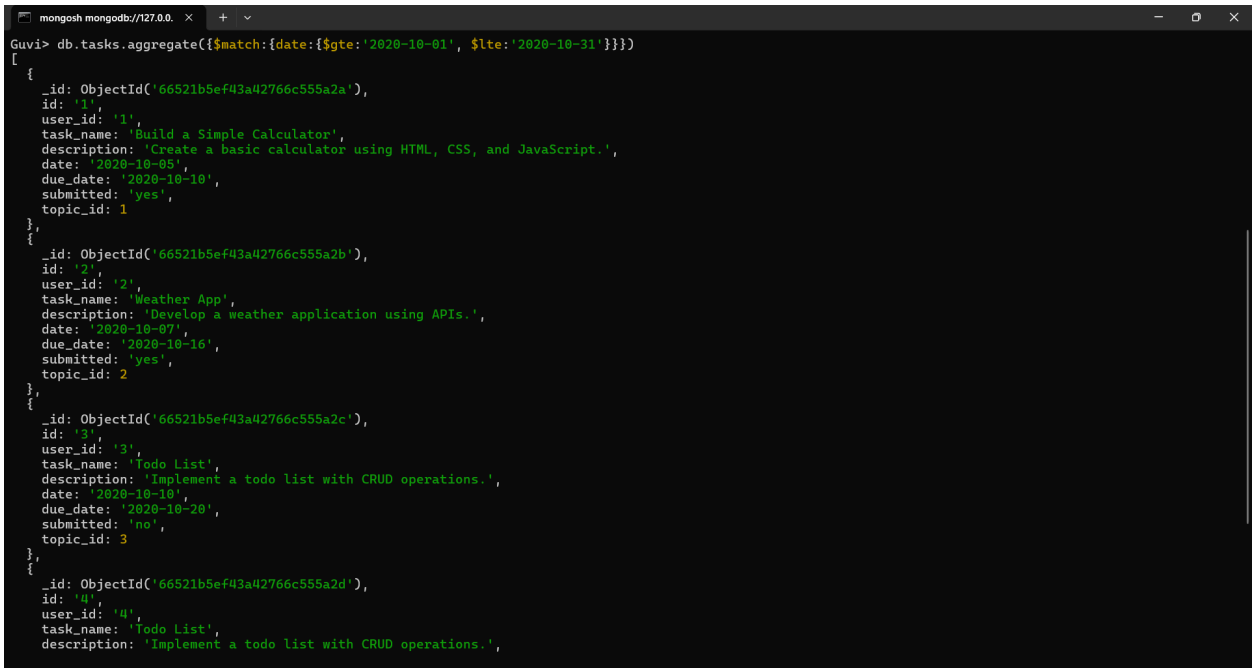


Shell:

Topics were taught in the month of October:

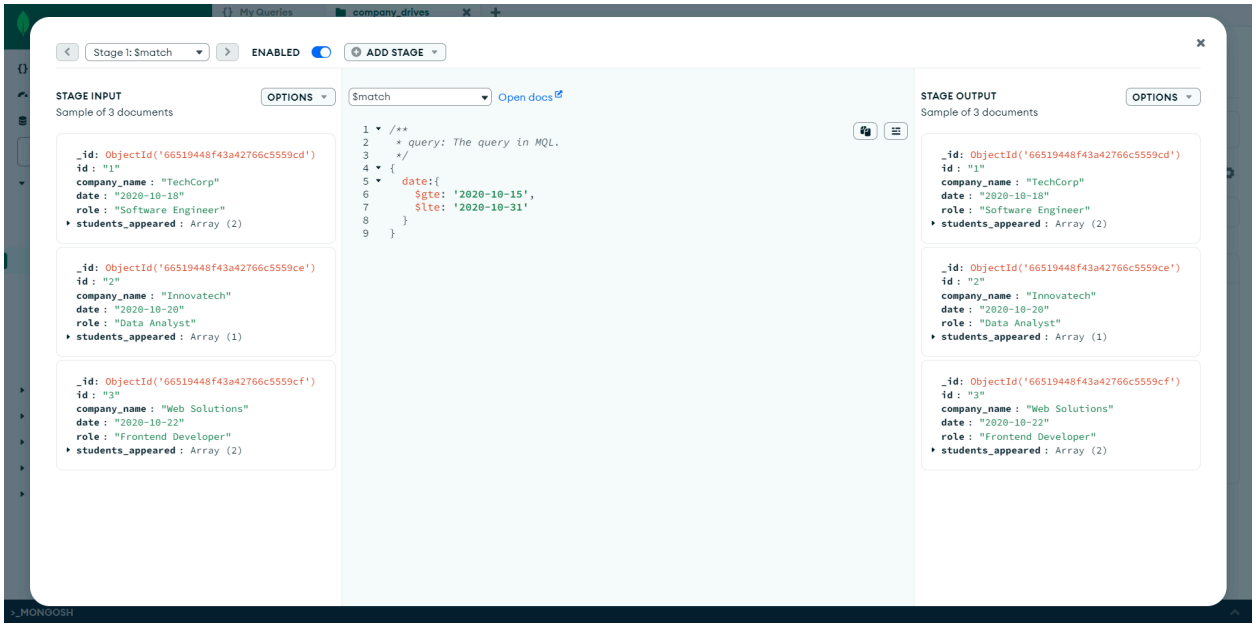


Tasks were given in the month of October



2.Find all the company drives which appeared between 15 oct-2020 and 31-oct-2020

MongoDB Compass:



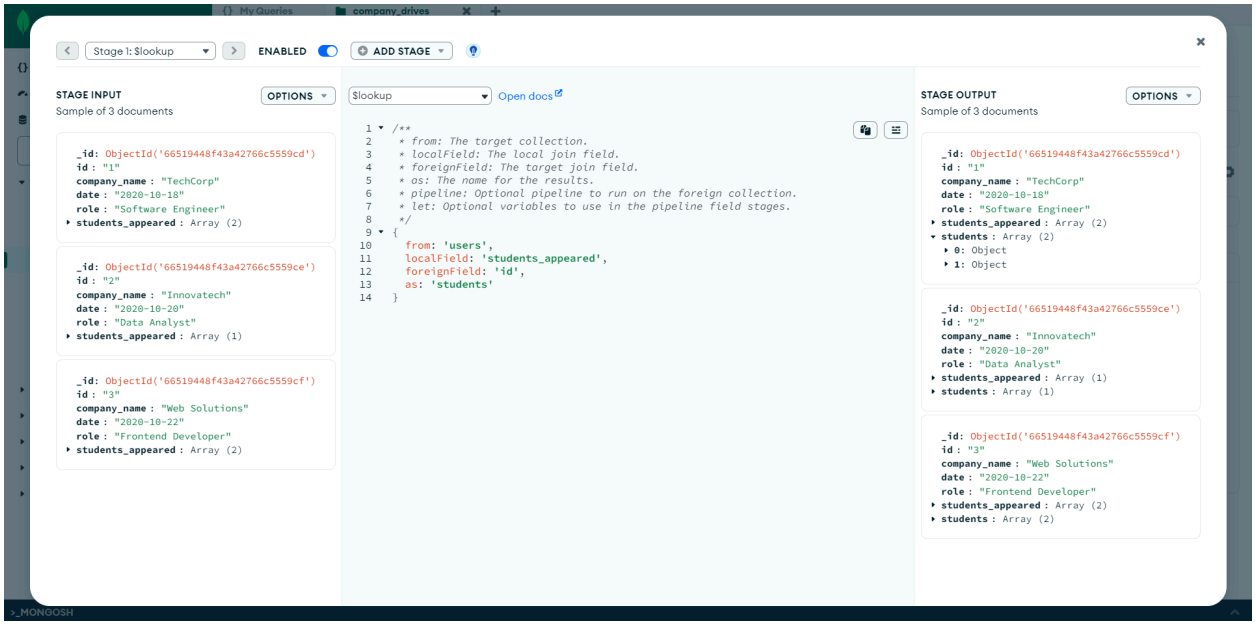
Shell:

```
Guvi> db.company_drives.aggregate({{$match:{date:{$gte:'2020-10-15', $lte:'2020-10-31'}}}})
[
  {
    _id: ObjectId('66519448f43a42766c5559cd'),
    id: '1',
    company_name: 'TechCorp',
    date: '2020-10-18',
    role: 'Software Engineer',
    students_appeared: [ 1, 2 ]
  },
  {
    _id: ObjectId('66519448f43a42766c5559ce'),
    id: '2',
    company_name: 'Innovatech',
    date: '2020-10-20',
    role: 'Data Analyst',
    students_appeared: [ 1 ]
  },
  {
    _id: ObjectId('66519448f43a42766c5559cf'),
    id: '3',
    company_name: 'Web Solutions',
    date: '2020-10-22',
    role: 'Frontend Developer',
    students_appeared: [ 1, 3 ]
  }
]
Guvi>
```

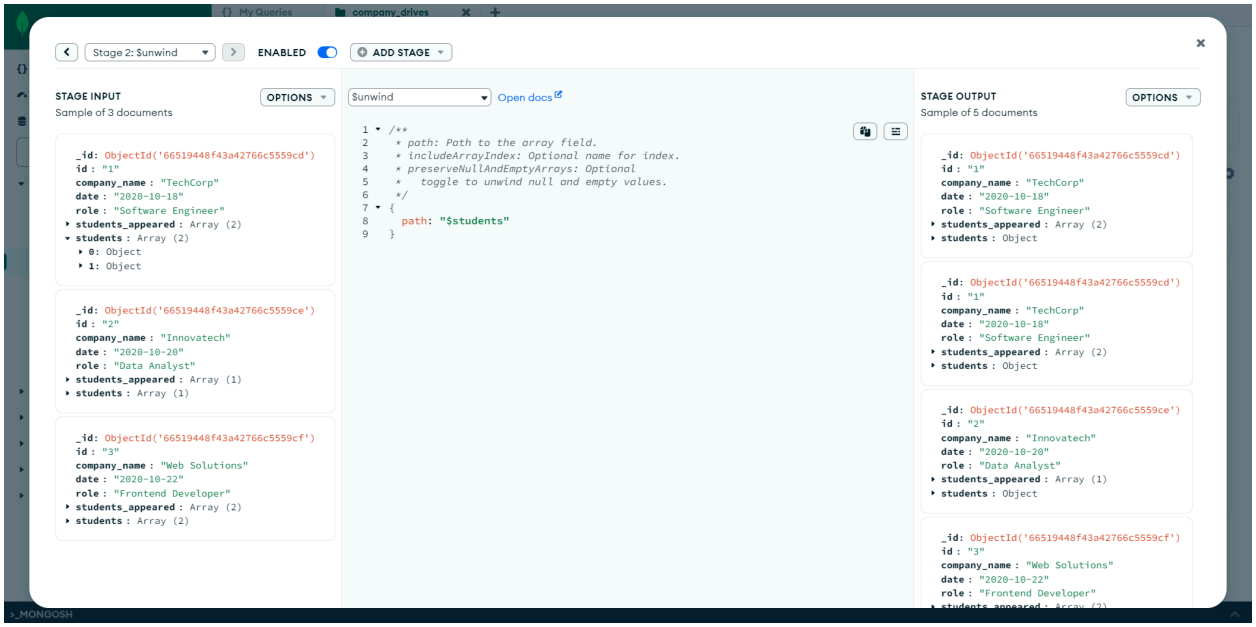
3.Find all the company drives and students who are appeared for the placement

MongoDB Compass:

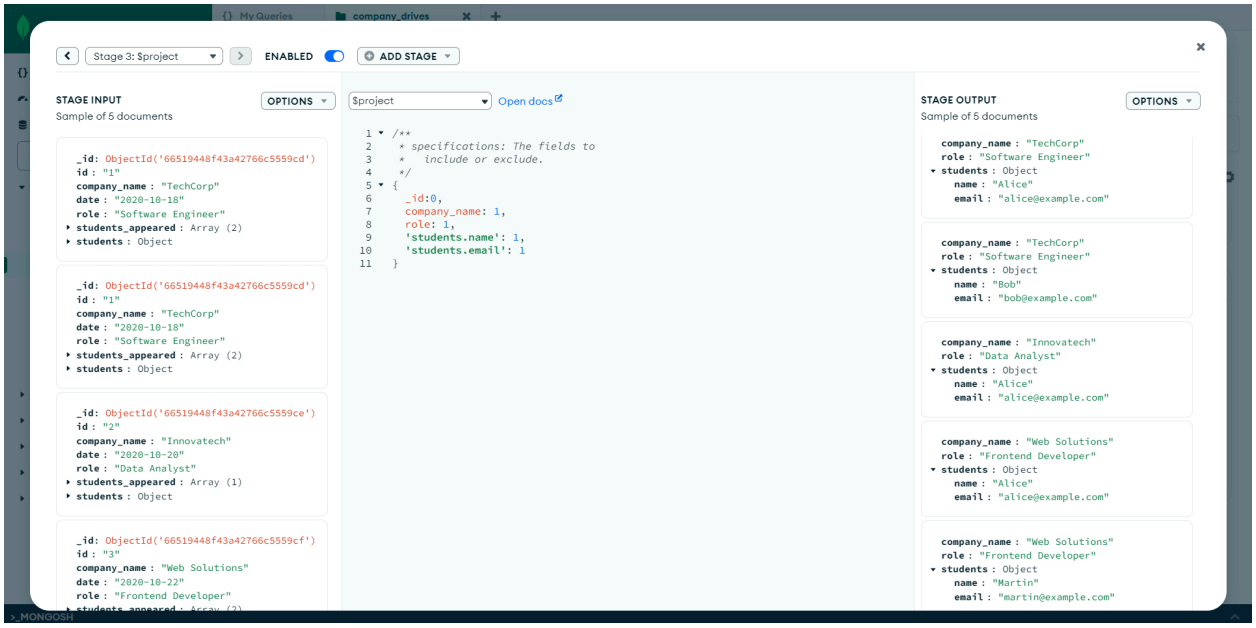
$lookup stage:



$unwind stage:



$project stage:



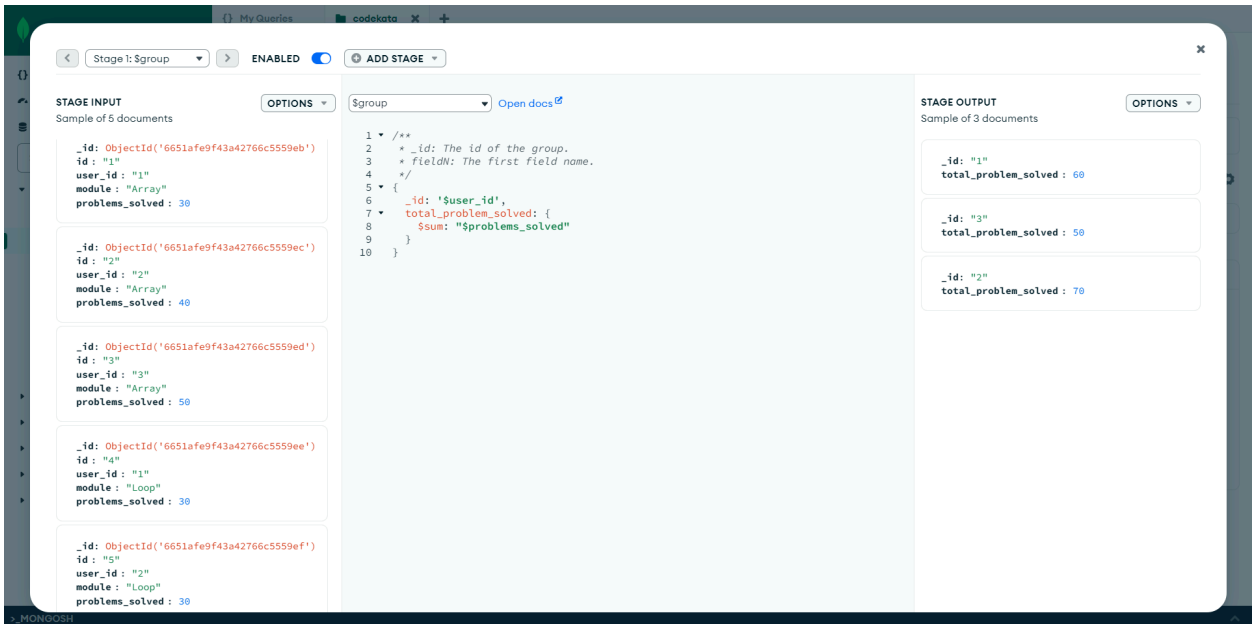
Shell:

```
Guvi> db.company_drives.aggregate([{$lookup:{from:"users", localField:"students_appeared", foreignField:"id", as:"students"}}])
[
  {
    _id: ObjectId('66519448f43a42766c5559cd'),
    id: '1',
    company_name: 'TechCorp',
    date: '2020-10-18',
    role: 'Software Engineer',
    students_appeared: [ 1, 2 ],
    students: [
      {
        _id: ObjectId('665194cff43a42766c5559dd'),
        id: 1,
        name: 'Alice',
        email: 'alice@example.com',
        mentor_id: 1
      },
      {
        _id: ObjectId('665194cff43a42766c5559de'),
        id: 2,
        name: 'Bob',
        email: 'bob@example.com',
        mentor_id: 1
      }
    ]
  },
  {
    _id: ObjectId('66519448f43a42766c5559ce'),
    id: '2',
    company_name: 'Innovatech',
    date: '2020-10-20',
    role: 'Data Analyst',
    students_appeared: [ 1 ],
    students: [
      {
        _id: ObjectId('665194cff43a42766c5559dd'),
        id: 1,
        name: 'Alice',
        email: 'alice@example.com',
        mentor_id: 1
      }
    ]
  },
```

```
  {
    _id: ObjectId('66519448f43a42766c5559ce'),
    id: '2',
    company_name: 'Innovatech',
    date: '2020-10-20',
    role: 'Data Analyst',
    students_appeared: [ 1 ],
    students: [
      {
        _id: ObjectId('665194cff43a42766c5559dd'),
        id: 1,
        name: 'Alice',
        email: 'alice@example.com',
        mentor_id: 1
      }
    ]
  },
  {
    _id: ObjectId('66519448f43a42766c5559cf'),
    id: '3',
    company_name: 'Web Solutions',
    date: '2020-10-22',
    role: 'Frontend Developer',
    students_appeared: [ 1, 3 ],
    students: [
      {
        _id: ObjectId('665194cff43a42766c5559dd'),
        id: 1,
        name: 'Alice',
        email: 'alice@example.com',
        mentor_id: 1
      },
      {
        _id: ObjectId('665194cff43a42766c5559df'),
        id: 3,
        name: 'Martin',
        email: 'martin@example.com',
        mentor_id: 2
      }
    ]
  }
]
Guvi>
```

4.Find the number of problems solved by the user in codekata

MongoDB Compass:

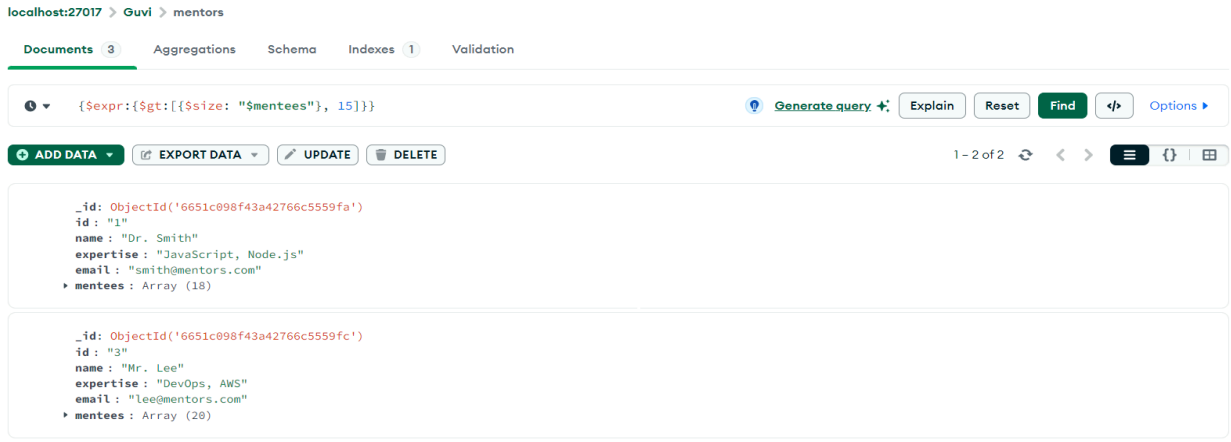


Shell:

```
Guvi> db.codekata.aggregate([{$group:{_id:'$user_id', total_problem_solved:{$sum: "$problems_solved"}}}])
[
  { _id: '2', total_problem_solved: 70 },
  { _id: '3', total_problem_solved: 50 },
  { _id: '1', total_problem_solved: 60 }
]
Guvi>
```

5.Find all the mentors with who has the mentee's count more than 15

MongoDB Compass:

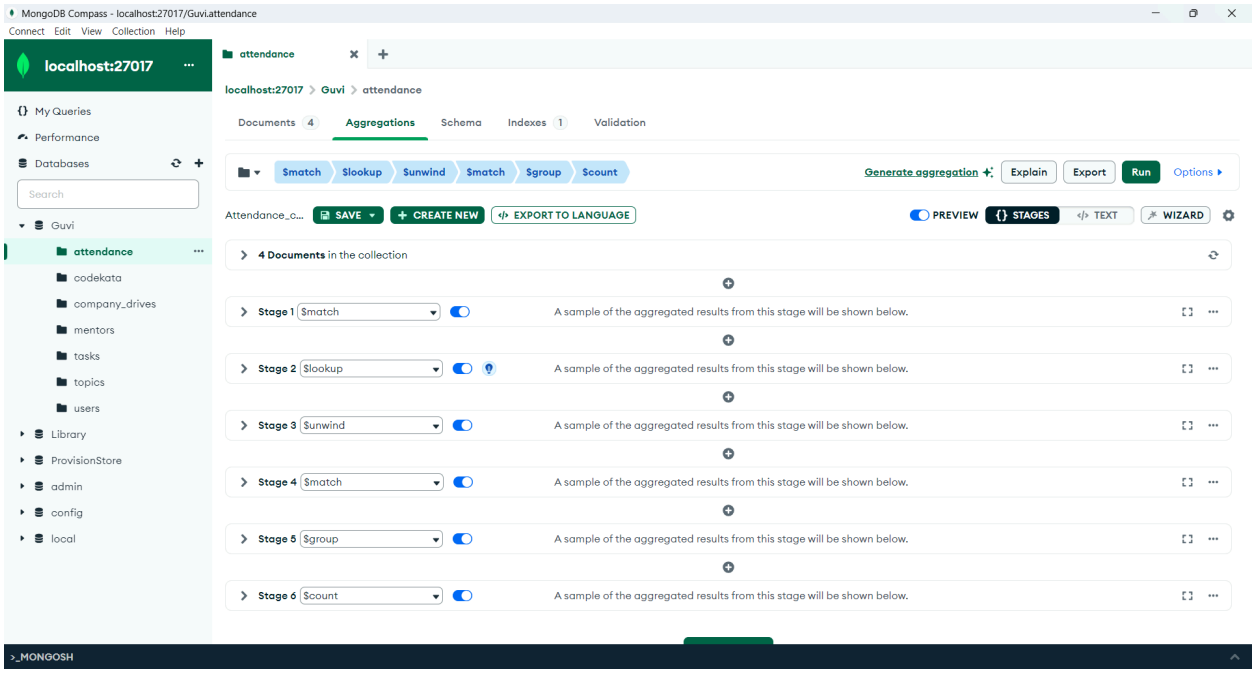


Shell:

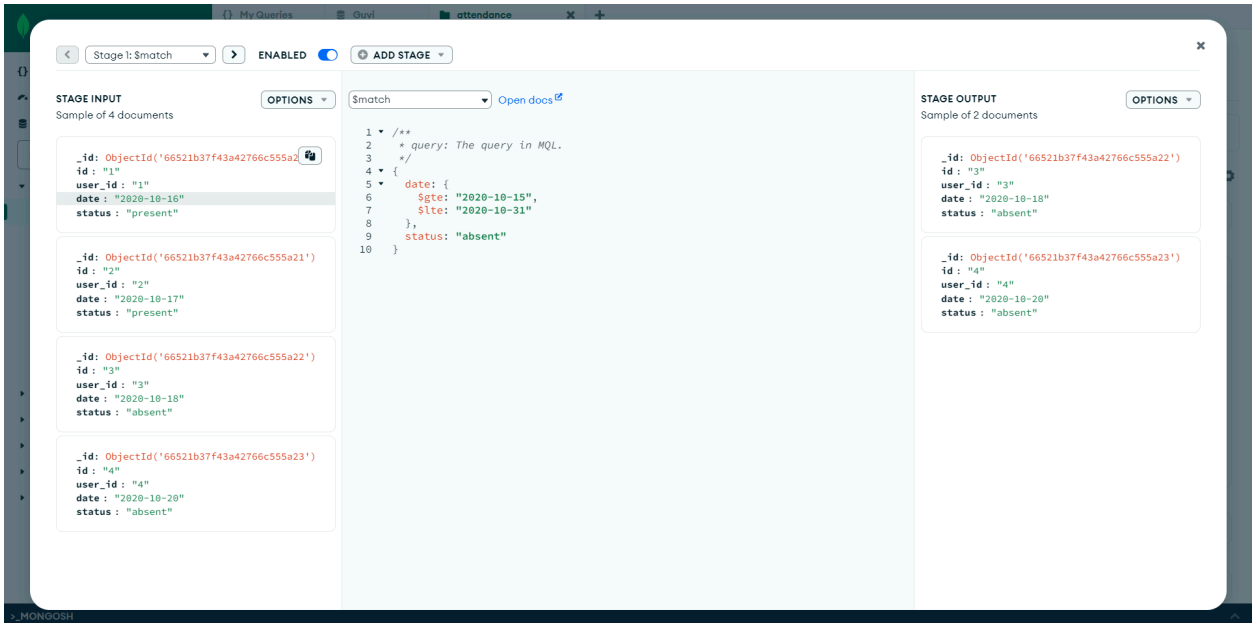
```
Guvi> db.mentors.find({$expr:{$gt:[{$size:"$mentees"},15]}})
[
  {
    _id: ObjectId('6651c098f43a42766c5559fa'),
    id: '1',
    name: 'Dr. Smith',
    expertise: 'JavaScript, Node.js',
    email: 'smith@mentors.com',
    mentees: [
       1,  2,  3,  4,  5,  6,  7,
       8,  9, 10, 11, 12, 13, 14,
      15, 16, 17, 18
    ]
  },
  {
    _id: ObjectId('6651c098f43a42766c5559fc'),
    id: '3',
    name: 'Mr. Lee',
    expertise: 'DevOps, AWS',
    email: 'lee@mentors.com',
    mentees: [
       1,  2,  3,  4,  5,  6,  7,
       8,  9, 10, 11, 12, 13, 14,
      15, 16, 17, 18, 19, 20
    ]
  }
]
Guvi>
```

6.Find the number of users who are absent and task is not submitted between 15 oct-2020 and 31-oct-2020

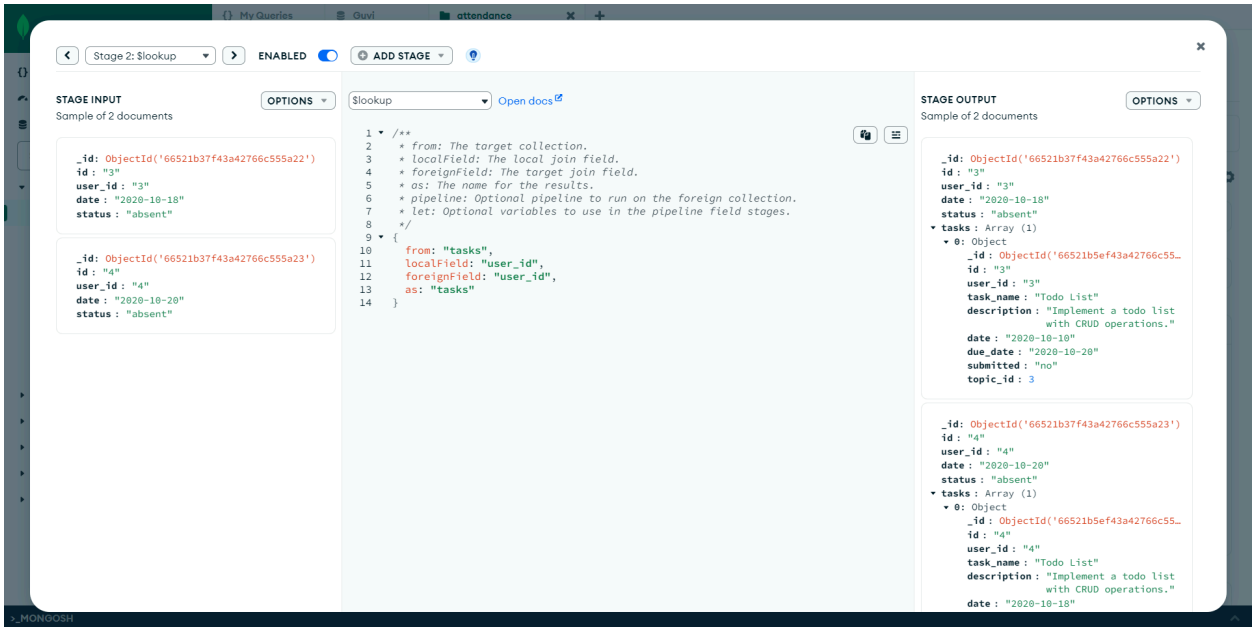
MongoDB Compass:



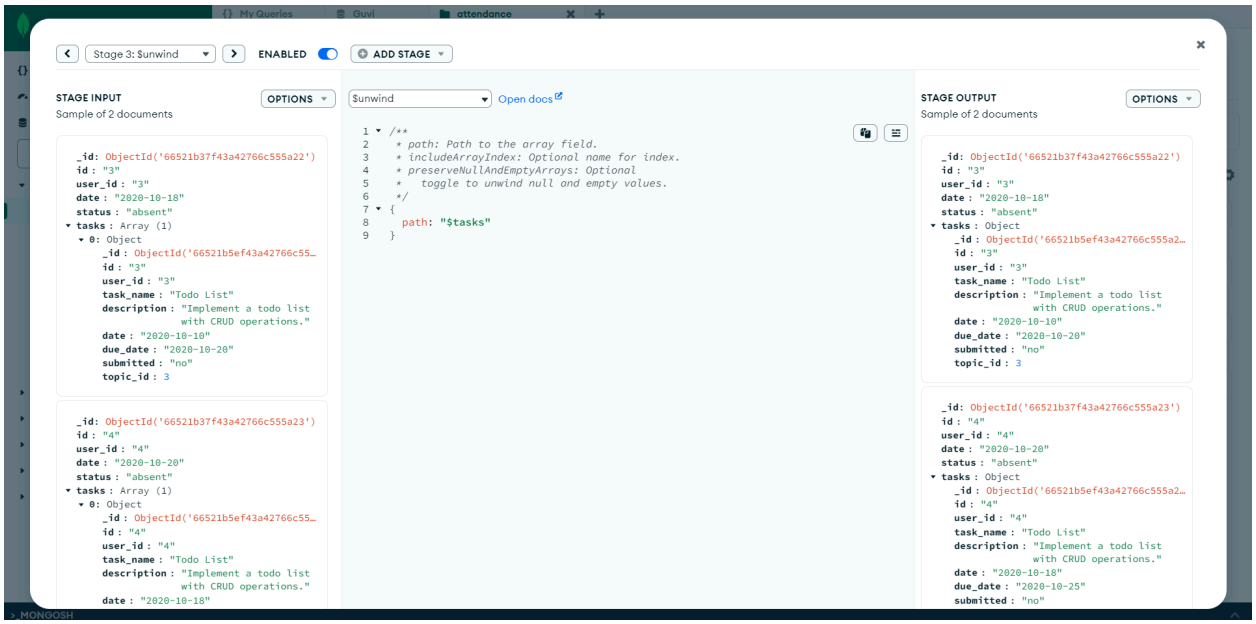
1.$match Stage



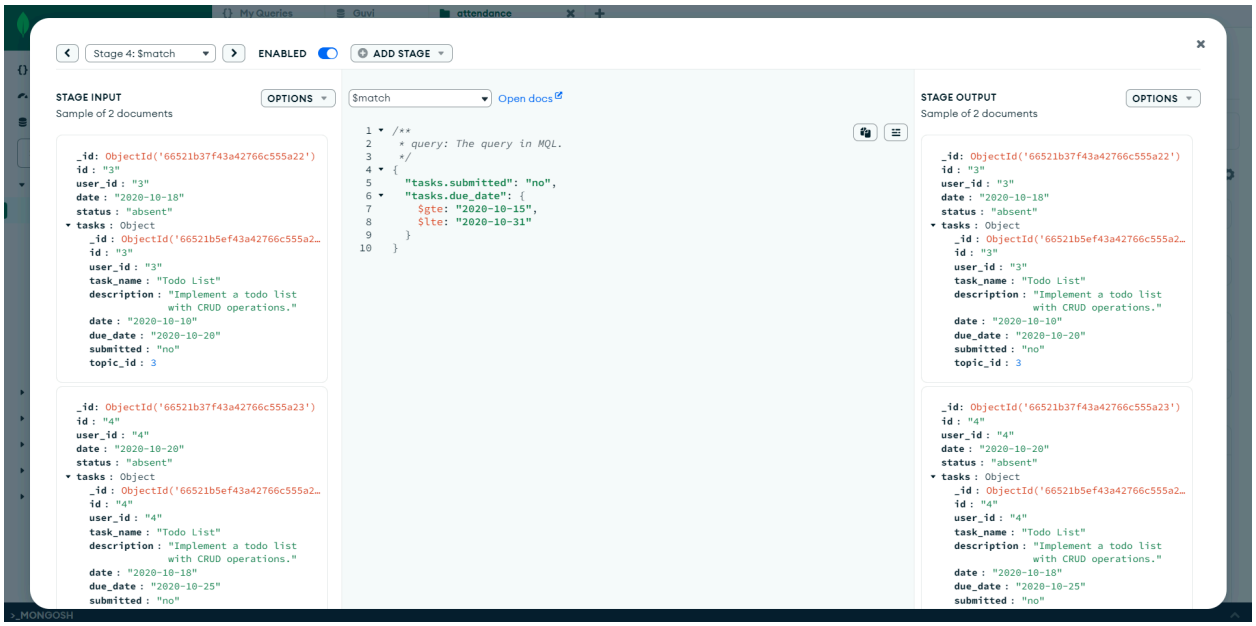
2.$lookup Stage:



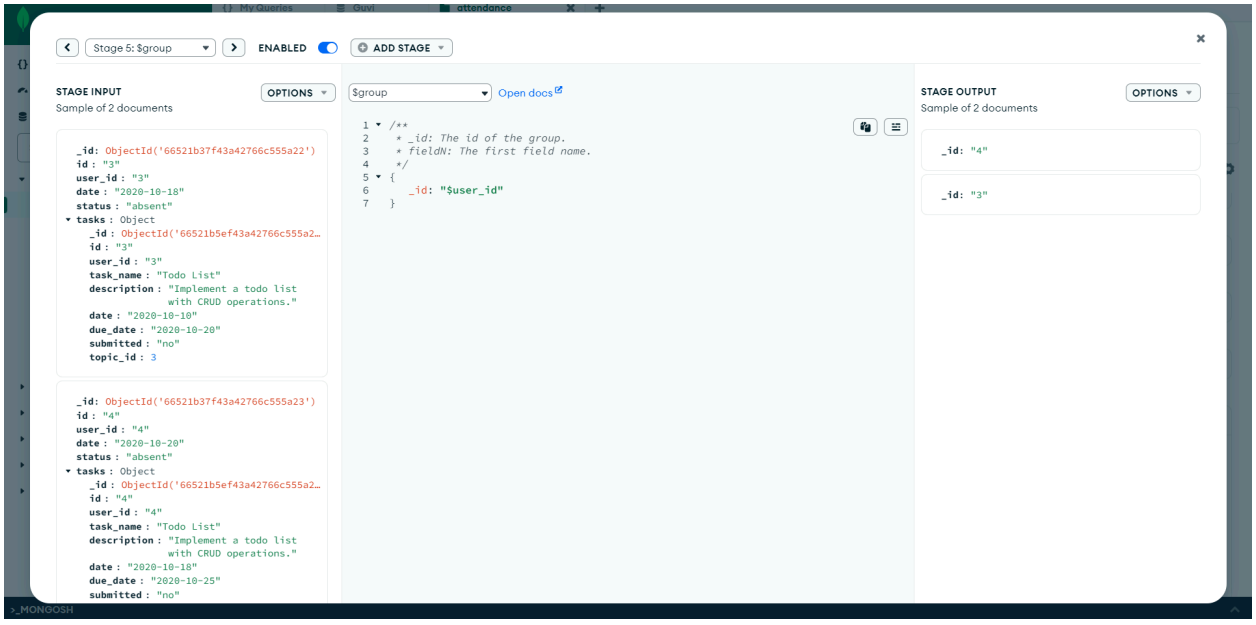
3.$unwind stage



4.$match stage:



5.$group stage:



6.$count stage: