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


db.topics.aggregate([
    {
        $lookup: {
                from: "tasks",
                localField: "topicid",
                foreignField: "topicid",
                as: "taskinfo"
            }
    },
    {
        $match:{$and:[{$or:[{topic_date:{$gt:new Date("30-sep-
2020")}},{topic_date:{$lt:new Date("1-nov-2020")}}]},

        {$or:[{"taskinfo.due_date":{$gt:new Date("30-sep-
2020")}},{"taskinfo.due_date":{$lt:new Date("1-nov-2020")}}]]
        ]}
    }

    ])
```

```
{
  _id: ObjectId("643534e92d2d868f635d5349"),
  topicid: 1,
  topic: 'HTML',
  topic_date: ISODate("2020-10-02T18:30:00.000Z"),
  taskinfo: [
    {
      _id: ObjectId("643541c12d2d868f635d534e"),
      taskid: 1,
      topicid: 1,
      userid: 1,
      task: 'HTML task',
      due_date: ISODate("2020-10-04T18:30:00.000Z"),
      submitted: true
    }
  ]
},
{
  _id: ObjectId("643534e92d2d868f635d534a"),
  topicid: 2,
  topic: 'CSS',
  topic_date: ISODate("2020-10-11T18:30:00.000Z"),
  taskinfo: [
    {
      _id: ObjectId("643541c12d2d868f635d534f"),
      taskid: 2,
      topicid: 2,
      userid: 2,
      task: 'CSS task',
      due_date: ISODate("2020-10-14T18:30:00.000Z"),
      submitted: true
    }
  ]
},
{
  _id: ObjectId("643534e92d2d868f635d534b"),
  topicid: 3,
  topic: 'Bootstrap',
  topic_date: ISODate("2020-10-13T18:30:00.000Z"),
```

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

    db.companydrives.find({$or:[{drive_date:{$gte:new Date("15-oct-2020")}},
    {drive_date:{$lte:new Date("31-0ct-2020")}}]})
```

```
zenclass>    db.comapnydrives.find({$or:[{drive_date:{$gte:new Date("15-oct-2020")}},
...        {drive_date:{$lte:new Date("31-0ct-2020")}}]})
[
  {
    _id: ObjectId("643542412d2d868f635d535e"),
    userid: 1,
    drive_date: ISODate("2020-10-17T18:30:00.000Z"),
    company: 'Infosys'
  },
  {
    _id: ObjectId("643542412d2d868f635d535f"),
    userid: 2,
    drive_date: ISODate("2020-10-20T18:30:00.000Z"),
    company: 'Amazon'
  },
  {
    _id: ObjectId("643542412d2d868f635d5361"),
    userid: 4,
    drive_date: ISODate("2020-11-03T18:30:00.000Z"),
    company: 'ITC'
  },
  {
    _id: ObjectId("643542412d2d868f635d5362"),
    userid: 5,
    drive_date: ISODate("2020-11-12T18:30:00.000Z"),
    company: 'Fintech'
  }
]
```

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

db.companydrives.aggregate([
    {
        $lookup: {
            from:"users",
            localField:"userid",
            foreignField:"userid",
            as :"userinfo"
            }
    },
    {
        $project:{
            _id:0,
            "userinfo.name":1,
            company:1,
            drive_date:1,
            "userinfo.email":1,
            "userinfo.userid":1
        }
    }
    ])
```

```
[
  {
    drive_date: ISODate("2020-10-04T18:30:00.000Z"),
    company: 'Amazon',
    userinfo: [ { userid: 1, name: 'selvam', email: 'selva@gmail.com' } ]
  },
  {
    drive_date: ISODate("2020-10-17T18:30:00.000Z"),
    company: 'Infosys',
    userinfo: [ { userid: 1, name: 'selvam', email: 'selva@gmail.com' } ]
  },
  {
    drive_date: ISODate("2020-10-20T18:30:00.000Z"),
    company: 'Amazon',
    userinfo: [ { userid: 2, name: 'siva', email: 'siva@gmail.com' } ]
  },
  {
    drive_date: ISODate("2020-10-07T18:30:00.000Z"),
    company: 'TCS',
    userinfo: [ { userid: 3, name: 'kutty', email: 'kutty@gmail.com' } ]
  },
  {
    drive_date: ISODate("2020-11-03T18:30:00.000Z"),
    company: 'ITC',
    userinfo: [ { userid: 4, name: 'ahamad', email: 'ahamad@gmail.com' } ]
  },
  {
    drive_date: ISODate("2020-11-12T18:30:00.000Z"),
    company: 'Fintech',
    userinfo: [ { userid: 5, name: 'priya', email: 'priya@gmail.com' } ]
  }
]
```

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

```
db.codekata.aggregate([
  {
      $lookup:{
          from:"users",
          localField:"userid",
          foreignField:"userid",
          as:"userinfo"
      }
  },
  {
      $project:{
          _id:0,
          "userinfo.name":1,
          userid:1,
          problems:1


      }
  }

])
```

```
... ]}
[
  { userid: 1, problems: 500, userinfo: [ { name: 'selvam' } ] },
  { userid: 2, problems: 300, userinfo: [ { name: 'siva' } ] },
  { userid: 3, problems: 255, userinfo: [ { name: 'kutty' } ] },
  { userid: 4, problems: 355, userinfo: [ { name: 'ahamad' } ] },
  { userid: 5, problems: 475, userinfo: [ { name: 'priya' } ] }
]
```

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

  db.mentors.find({mentee_count:{$gt:15}});
```

```
zenclass> db.mentors.find({mentee_count:{$gt:15}})
[
  {
    _id: ObjectId("643542052d2d868f635d5358"),
    mentorid: 1,
    mentorname: 'Ruban',
    mentor_email: 'ruban@gmail.com',
    mentee_count: 20
  },
  {
    _id: ObjectId("643542052d2d868f635d535a"),
    mentorid: 3,
    mentorname: 'sathis',
    mentor_email: 'sathis@gmail.com',
    mentee_count: 100
  },
  {
    _id: ObjectId("643542052d2d868f635d535b"),
    mentorid: 4,
    mentorname: 'sanjay',
    mentor_email: 'sanjay@gmail.com',
    mentee_count: 18
  },
  {
    _id: ObjectId("643542052d2d868f635d535c"),
    mentorid: 5,
    mentorname: 'sai mohan',
    mentor_email: 'saimohan@gmail.com',
    mentee_count: 25
  }
]
```

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


db.attendance.aggregate([
    {$lookup: {
          from: "topics",
          localField: "topicid",
          foreignField: "topicid",
          as: "topics"
       }},
       {
          $lookup: {
                from: "tasks",
                localField: "topicid",
                foreignField: "topicid",
                as: "tasks"
            }
       },
       {$match:{$and:[{attended:false},{"tasks.submitted":false}]}},
       {$match:{$and:[{$or:[{"topics.topic_date":{$gte:new Date("15-oct-
2020")}},{"topics.topic_date":{$lte:new Date("31-oct-2020")}}]},
       {$or:[{"tasks.due_date":{$gte:new Date("15-oct-
2020")}},{"tasks.due_date":{$lte:new Date("31-oct-2020")}}]}
       ]}},
       {
          $count: "No_of_students_absent"
       }

    ])
```

```
zenclass> db.attendance.aggregate([
...     {$lookup: {
...           from: "topics",
...           localField: "topicid",
...           foreignField: "topicid",
...           as: "topics"
...        }},
...        {
...           $lookup: {
...                 from: "tasks",
...                 localField: "topicid",
...                 foreignField: "topicid",
...                 as: "tasks"
...             }
...        },
...        {$match:{$and:[{attended:false},{"tasks.submitted":false}]}},
...        {$match:{$and:[{$or:[{"topics.topic_date":{$gte:new Date("15-oct-2020")}},{"topics.topic_date":{$lte:new Date("31-oct-2020")}}]},
...        {$or:[{"tasks.due_date":{$gte:new Date("15-oct-2020")}},{"tasks.due_date":{$lte:new Date("31-oct-2020")}}]}
...        ]}},
...        {
...           $count: "No_of_students_absent"
...        }
...
...     ])
[ { No_of_students_absent: 1 } ]
```