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

MongoDB Query:-

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

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

])
```

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

MongoDB Query:-

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

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

MongoDB Query:-

```
db.CompanyDrives.aggregate([
  {
      $lookup: {
                from:"users",
                localField:"id",
                foreignField:"id",
                as :"userinformation"
              }
  },
```

```
    {
        $project:{
       _id:0,
       "userinformation.name":1,
        company:1,
       drive_date:1,
       "userinfo.email":1,
      "userinfo.id":1
    }
   }
])
```

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

MongoDB Query:-

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

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

MongoDB Query:-

```
db.users.aggregate([
        {$lookup: {
                  from: "mentors",
                  localField: "mentor_id",
                 foreignField: "mentor_id",
                  as: "mentorInformation"
                 }},
{$group:{_id:{mentor_id:"$mentorInfo.mentor_id",name:"$mentorInformation.name"},
mentee_count:{$sum:1}}},
{$match:{mentee_count:{$gt:13}}},

])
```

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

MongoDB Query:-

```
db.attendence.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"
}

])
```


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