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:{
$and:[
{topic_date:{$gte:new Date("2020-10-01"),$lte:new Date("2020-11-01")}
},
{
$or:[
{"taskinfo.due_date":{$gte:new Date("2020-10-01"),$lt:new
Date("2020-11-01")}},
{"taskinfo.due_date":{$exists:false}}
]
}
]
}
},
{
$project:{
 id:0,
topicid:1,
topic:1,
topic_date:1,
tasks:"$taskinfo.task",
due_date:"$taskinfo.due_date"
}
}
])
```

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-oct-2020")}}
]
})
```

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

```
db.comapnydrives.aggerate([
{
$lookup:{
from:"users",
localField:"userid",
foreignField:"userid",
as:"userinfo"
}
},
{
$project:{
_id:0,
company:1,
drive_date:1,
students:"$userinfo"
}
}]
```

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

```
db.codekata.aggregate([
{
$lookup:{
from:"users",
localField:"userid",
foreignField:"userid",
as:"userinfo"
}
},
{
$group:{
_id:{
userid:"$userid",
username:"$userinfo.name"
},
total_problem_solved:{$sum:"$problems"}
}
```

```
},
{
$project:{
_id:0,
userid:"$_id.userid",
username:"$_id.username",
total_problem_solved:1
}
}
])
```

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

```
db.users.aggregate([
{
$match:{ mentorid:{$exists:true}}
},
{
$group:{
_id:"$mentorid",
mentorname:{$first:"$mentorname"},
mentee_count:{$sum:1}
}
},
{
$match:{mentee_count:{$gt:15}}
},
{
$project:{
_id:0,
mentorid:"$_id",
mentorname:1,
mentee_count:1
}
}
])
```

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:{
attended:false,
"tasks.submitted":false,
$and:[
{"topics.topic_date":{$gte:new Date("15-oct-2020")}},
{"topics.topic_date":{$lte:new Date("31-oct-2020")}},
{"tasks.due_date":{$gte:new Date("15-oct-2020")}},
{"tasks.due_date":{$lte:new Date("31-oct-2020")}}
]
}
},
{$count:"No_of_students_absent"}])
```