MongoDB-Task 2

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"), $lt: 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_dates: "$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.companydrives.aggregate([
{ $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_problems_solved: { $sum: "$problems"}

} },

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