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

```
db.topics.aggregate([
  {
    $project :{
      'topic_name': 1,
      'date': '$date',
      'month':{
         $month: '$date'
      },
       'year': {
         $year: '$date'
      },
    }
  },
  {
    $match:{
```

```
'month': 10,
    'year': 2020
    }
},
{
    $project:{
       'topic_name': 1,
       'date': 1
    }
}
```

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

```
db.drives.aggregate([
  {
    $project:{
      'drive_name': '$dirve_name',
      'date': 1,
      'day': { $dayOfMonth : '$date'},
      'month': {$month: '$date'},
      'year': {$year: '$date'}
    }
  },
    $match: {
       'year':{
         $eq: 2020
       },
```

```
'month':{
         $eq:10
       },
       'day': {
         $gte: 15,
         $lte:31
    }
  },
    $project: {
       'drive_name': 1,
       'date': 1
    }
  }
]).pretty();
```

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

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

```
db.codekata.aggregate([
```

```
{
    $lookup:{
       from: 'users',
       localField: 'userId',
       foreignField: 'userdId',
       as: 'user_details'
    }
  },
    $project: {
       'name': '$user_details.name',
       'problems_solved': '$problemsSolved'
]).pretty()
```

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

```
db.mentors.aggregate([
  {
    $lookup: {
       from: 'users',
       localField: 'mentor_id',
       foreignField: 'userdId',
       as: 'mentor details'
    }
  },
    $project: {
       'mentor_name': '$mentor_details.name',
       'mentees count': {
         $size: '$mentee ids'
       }
```

```
}
}
},
{
    $match: {
        'mentees_count': {
            $gte: 15
        }
    }
}
]).pretty()
```

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: 'tasks',
      localField: 'userId',
      foreignField: 'user_id',
      as: 'userTasks'
  },
    $match: {
       'userTasks.submission_date': {
         $gte: ISODate("2020-10-15T00:00:00Z"),
         $lte: ISODate("2020-11-01T00:00:00Z"),
```

```
},
     'status': 'absent'
  }
},
  $lookup: {
     from: 'users',
    localField: 'userId',
    foreignField: 'userdId',
    as: 'userDetails'
  }
},
  $project: {
     'userDetails': {
       $arrayElemAt: ["$userDetails", 0]
```

```
},
       'taskDetails': {
         $arrayElemAt: ["$userTasks", 0]
       },
       'status': 1
    }
  },
    $project: {
       'Name': "$userDetails.name",
       'Task Name': '$taskDetails.task_name',
       'status': 1,
       'Submission date': '$taskDetails.submission_date',
    }
  }
]).pretty()
```