MongoDB Case Study – 2

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

```
db.topics.aggregate([

  {$lookup: {

    from: "tasks",

    localField: "task_id",    // field in `topics`

    foreignField: "task_id",   // field in `tasks`

    as: "task_info"

  }},

  {$match: {

    $or: [

      { start_date: { $gte: ISODate("2023-10-01"), $lte: ISODate("2023-10-31") } },

      { "task_info.deadline_date": { $gte: ISODate("2023-10-01"), $lte: ISODate("2023-10-31") } }

]}}]);
```

```
{
  _id: ObjectId('68834e03067cc4df113dcbf9'),
  topic_id: 1,
  task_id: 1,
  topic: 'HTML',
  description: 'Master Html',
  start_date: 2023-10-07T00:00:00.000Z,
  end_date: 2023-10-08T00:00:00.000Z,
  task_info: [
    {
      _id: ObjectId('68834def067cc4df113dcbf4'),
      topic_id: 1,
      task_id: 1,
      topic: 'HTML',
      description: 'Create a content using HTML',
      deadline_date: 2023-10-09T00:00:00.000Z
    }
  ]
}
{
  _id: ObjectId('68834e03067cc4df113dcbfa'),
  topic_id: 2,
  task_id: 2,
  topic: 'CSS',
  description: 'Master Css',
  start_date: 2023-10-14T00:00:00.000Z,
  end_date: 2023-10-15T00:00:00.000Z,
  task_info: [
    {
      _id: ObjectId('68834def067cc4df113dcbf5'),
      topic_id: 2,
```

```
      task_id: 2,
      topic: 'CSS',
      description: 'Style - created HTML content',
      deadline_date: 2023-10-16T00:00:00.000Z
    }
  ]
}
{
  _id: ObjectId('68834e03067cc4df113dcbfb'),
  topic_id: 3,
  task_id: 3,
  topic: 'Javascript',
  description: 'Master Javascript',
  start_date: 2023-10-21T00:00:00.000Z,
  end_date: 2023-10-22T00:00:00.000Z,
  task_info: [
    {
      _id: ObjectId('68834def067cc4df113dcbf6'),
      topic_id: 3,
      task_id: 3,
      topic: 'Javascript',
      description: 'Add logics to the created content',
      deadline_date: 2023-10-23T00:00:00.000Z
    }
  ]
}
```

Find all the company drives which appeared between 15 oct-2023 and 31-oct-2023

db.companydrives.find({drive_date:{$gte:ISODate("2023-10-15"),$lte:ISODate("2023-10-31")}})

```
> db.companydrives.find({drive_date:{$gte:ISODate("2023-10-15"),$lte:ISODate("2023-10-31")}})
< {
    _id: ObjectId('68834d01b0fcb0f3cc0af9ca'),
    userid: 1,
    drive_date: 2023-10-16T00:00:00.000Z,
    company: 'TCS'
  }
  {
    _id: ObjectId('68834d01b0fcb0f3cc0af9cb'),
    userid: 1,
    drive_date: 2023-10-19T00:00:00.000Z,
    company: 'HCL'
  }
  {
    _id: ObjectId('68834d01b0fcb0f3cc0af9cc'),
    userid: 2,
    drive_date: 2023-10-22T00:00:00.000Z,
    company: 'Amazon'
  }
  {
    _id: ObjectId('68834d01b0fcb0f3cc0af9cd'),
    userid: 3,
    drive_date: 2023-10-28T00:00:00.000Z,
    company: 'Wipro'
  }
zen_class >
```

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

db.codekata.find({},{user_id:1,codekata_solved:1,_id:0})

```
> db.codekata.find({},{user_id:1,codekata_solved:1,_id:0})
< {
    user_id: 1,
    codekata_solved: 300
  }
  {
    user_id: 2,
    codekata_solved: 250
  }
  {
    user_id: 3,
    codekata_solved: 200
  }
  {
    user_id: 4,
    codekata_solved: 190
  }
  {
    user_id: 5,
    codekata_solved: 180
  }
```

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

db.mentors.find({mentees:{$gt:15}},{_id:0})

```
> db.mentors.find({mentees:{$gt:15}},{_id:0})
< {
    mentor_id: 1,
    mentor_name: 'Sathish',
    mentees: 30
  }
  {
    mentor_id: 3,
    mentor_name: 'Thillan',
    mentees: 50
  }
  {
    mentor_id: 4,
    mentor_name: 'Kulunthan',
    mentees: 70
  }
  {
    mentor_id: 5,
    mentor_name: 'Mani',
    mentees: 16
  }
  {
    mentor_id: 8,
    mentor_name: 'Parthiban',
    mentees: 32
  }
  {
    mentor_id: 10,
    mentor_name: 'Vijay',
    mentees: 35
  }
```

5.Find the number of users who are absent and task is not submitted between 15 oct-2023 and 31-oct-2023

```
db.attendance.aggregate([
  {
   $match: {
     Class_date: {
       $gte: ISODate("2023-10-15"),
       $lte: ISODate("2023-10-31")
     },
     attendance: false
   }
  },
  {
   $lookup: {
     from: "task_completion",
     localField: "userid",
     foreignField: "userid",
     as: "task_info"
   }
  },
  {
   $unwind: "$task_info"
  },
  {
   $match: {
     "task_info.task_completion": false
   }
  },
  {
   $group: {
     _id: "$userid"
```

```
    }
  },
  {
    $count: "absent_and_task_not_completed"
  }
])
```

```
< {
    absent_and_task_not_completed: 2
  }
```