

Zen Class Model

Task:

Design database for Zen class programme

Users

Codekata

Attendance

Topics

Tasks

company_drives

Mentors

Queries:

1. Find all the topics and tasks which are thought in the month of October
2. Find all the company drives which appeared between 15 oct-2020 and 31-oct-2020.
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.
5. Find all the mentors with who has the mentee's count more than 15.
6. Find the number of users who are absent and task is not submitted between 15 oct-2020 and 31-oct-2020

Database: zenclassmodel

Collections:

Users:

```
[
  {
    "_id": ObjectId ("614d76a11e0a6864e1d41f18"),
    "id": 1,
    "studentName": "Student 1",
    "email": "student1@gmail.com",
    "password": "hashedpassword",
    "batch": "B25b",
```

```
"portfolio": "student1.com",
"codekata": [
  {
    "topicId": ObjectId("614d6e1c1e0a6864e1d41f0d"),
    "questionId": "1",
    "userOutput": [
      "line1",
      "line2"
    ]
  },
  {
    "topicId": ObjectId("614d6e1c1e0a6864e1d41f0d"),
    "questionId": "2",
    "userOutput": [
      "line1",
      "line2"
    ]
  },
  {
    "topicId": ObjectId("614d6e1c1e0a6864e1d41f0e"),
    "questionId": "1",
    "userOutput": [
      "line1",
      "line2"
    ]
  }
],
"codekataSolvedCount": 3,
"tasks": [
  {
```

```

      "taskId": ObjectId("614d6aa71e0a6864e1d41ef9"),
      "sourceCodeUrl": "github.com/student1/task-1",
      "deployedUrl": "task1.netlify.app",
      "submittedOn": ISODate("2020-10-01T00:00:00.000Z")
    },
    {
      "taskId": ObjectId("614d6aa71e0a6864e1d41efa"),
      "sourceCodeUrl": "github.com/student1/task-2",
      "deployedUrl": "task2.netlify.app",
      "submittedOn": ISODate("2020-10-16T00:00:00.000Z")
    },
    {
      "taskId": ObjectId("614d6aa71e0a6864e1d41efb"),
      "sourceCodeUrl": "github.com/student1/task-3",
      "deployedUrl": "task3.netlify.app",
      "submittedOn": ISODate("2020-10-20T00:00:00.000Z")
    },
    {
      "taskId": ObjectId("614d6aa71e0a6864e1d41efc"),
      "sourceCodeUrl": "github.com/student1/task-4",
      "deployedUrl": "task4.netlify.app",
      "submittedOn": ISODate("2020-10-25T00:00:00.000Z")
    }
  ]
},
{
  "_id": ObjectId("614d76a11e0a6864e1d41f19"),
  "id": 2,
  "studentName": "Student 2",
  "email": "student2@gmail.com",

```

```
"password": "hashedpassword",
"batch": "B25b",
"portfolio": "student2.com",
"codekata": [
  {
    "topicId": ObjectId("614d6e1c1e0a6864e1d41f0d"),
    "questionId": "1",
    "userOutput": [
      "line1",
      "line2"
    ]
  },
  {
    "topicId": ObjectId("614d6e1c1e0a6864e1d41f0d"),
    "questionId": "2",
    "userOutput": [
      "line1",
      "line2"
    ]
  }
],
"codekataSolvedCount": 2,
"tasks": [
  {
    "taskId": ObjectId("614d6aa71e0a6864e1d41ef9"),
    "sourceCodeUrl": "github.com/student2/task-1",
    "deployedUrl": "task1.netlify.app",
    "submittedOn": ISODate("2020-10-10T00:00:00.000Z")
  },
  {
```

```

      "taskId": ObjectId("614d6aa71e0a6864e1d41efa"),
      "sourceCodeUrl": "github.com/student2/task-2",
      "deployedUrl": "task2.netlify.app",
      "submittedOn": ISODate("2020-10-20T00:00:00.000Z")
    },
    {
      "taskId": ObjectId("614d6aa71e0a6864e1d41efc"),
      "sourceCodeUrl": "github.com/student2/task-3",
      "deployedUrl": "task3.netlify.app",
      "submittedOn": ISODate("2020-10-28T00:00:00.000Z")
    }
  ]
},
{
  "_id": ObjectId("614d76a11e0a6864e1d41f1a"),
  "id": 3,
  "studentName": "Student 3",
  "email": "student3@gmail.com",
  "password": "hashedpassword",
  "batch": "B25b",
  "portfolio": "student3.com",
  "codekata": [
    {
      "topicId": ObjectId("614d6e1c1e0a6864e1d41f0d"),
      "questionId": "1",
      "userOutput": [
        "line1",
        "line2"
      ]
    }
  ]
}

```

```
],
"codekataSolvedCount": 1,
"tasks": [
  {
    "taskId": ObjectId("614d6aa71e0a6864e1d41ef9"),
    "sourceCodeUrl": "github.com/student3/task-1",
    "deployedUrl": "task1.netlify.app",
    "submittedOn": ISODate("2020-10-13T00:00:00.000Z")
  }
]
},
{
  "_id": ObjectId("614d76a11e0a6864e1d41f1b"),
  "id": 4,
  "studentName": "Student 4",
  "email": "student4@gmail.com",
  "password": "hashedpassword",
  "batch": "B25b",
  "portfolio": "student4.com",
  "codekata": [
    {
      "topicId": ObjectId("614d6e1c1e0a6864e1d41f0d"),
      "questionId": "1",
      "userOutput": [
        "line1",
        "line2"
      ]
    }
  ],
  {
    "topicId": ObjectId("614d6e1c1e0a6864e1d41f0d"),
```

```
"questionId": "2",
"userOutput": [
  "line1",
  "line2"
],
{
  "topicId": ObjectId("614d6e1c1e0a6864e1d41f0e"),
  "questionId": "1",
  "userOutput": [
    "line1",
    "line2"
  ]
},
"codekataSolvedCount": 3,
"tasks": [
  {
    "taskId": ObjectId("614d6aa71e0a6864e1d41efa"),
    "sourceCodeUrl": "github.com/student4/task-1",
    "deployedUrl": "task1.netlify.app",
    "submittedOn": ISODate("2020-10-18T00:00:00.000Z")
  },
  {
    "taskId": ObjectId("614d6aa71e0a6864e1d41efb"),
    "sourceCodeUrl": "github.com/student4/task-2",
    "deployedUrl": "task2.netlify.app",
    "submittedOn": ISODate("2020-10-25T00:00:00.000Z")
  },
  {
```

```

      "taskId": ObjectId("614d6aa71e0a6864e1d41efc"),
      "sourceCodeUrl": "github.com/student4/task-3",
      "deployedUrl": "task3.netlify.app",
      "submittedOn": ISODate("2020-10-28T00:00:00.000Z")
    }
  ]
}
]

```

Codekata:

```

[
  {
    "_id": ObjectId("614d6e1c1e0a6864e1d41f0d"),
    "id": 1,
    "title": "Input/Output",
    "questions": [
      {
        "questionId": 1,
        "question": "question-1",
        "inputDescription": "input description of question 1",
        "outputDescription": "Output description of question 1",
        "sampleInput": "sample input for question 1",
        "sampleOutput": "sample output for question 1"
      },
      {
        "questionId": 2,
        "question": "question-2",
        "inputDescription": "input description of question 2",
        "outputDescription": "Output description of question 2",
        "sampleInput": "sample input for question 2",
        "sampleOutput": "sample output for question 2"
      }
    ]
  }
]

```



```

    },
    {
      "questionId": 3,
      "question": "question-3",
      "inputDescription": "input description of question 3",
      "outputDescription": "Output description of question 3",
      "sampleInput": "sample input for question 3",
      "sampleOutput": "sample output for question 3"
    }
  ]
},
{
  "_id": ObjectId("614d6e1c1e0a6864e1d41f0e"),
  "id": 2,
  "title": "Arrays",
  "questions": [
    {
      "questionId": 1,
      "question": "question-1",
      "inputDescription": "input description of question 1",
      "outputDescription": "Output description of question 1",
      "sampleInput": "sample input for question 1",
      "sampleOutput": "sample output for question 1"
    },
    {
      "questionId": 2,
      "question": "question-2",
      "inputDescription": "input description of question 2",
      "outputDescription": "Output description of question 2",
      "sampleInput": "sample input for question 2",

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```
    "sampleOutput": "sample output for question 2"
  },
  {
    "questionId": 3,
    "question": "question-3",
    "inputDescription": "input description of question 3",
    "outputDescription": "Output description of question 3",
    "sampleInput": "sample input for question 3",
    "sampleOutput": "sample output for question 3"
  }
]
},
{
  "_id": ObjectId("614d6e1c1e0a6864e1d41f0f"),
  "id": 3,
  "title": "Strings",
  "questions": [
    {
      "questionId": 1,
      "question": "question-1",
      "inputDescription": "input description of question 1",
      "outputDescription": "Output description of question 1",
      "sampleInput": "sample input for question 1",
      "sampleOutput": "sample output for question 1"
    },
    {
      "questionId": 2,
      "question": "question-2",
      "inputDescription": "input description of question 2",
      "outputDescription": "Output description of question 2",
```

```

    "sampleInput": "sample input for question 2",
    "sampleOutput": "sample output for question 2"
  },
  {
    "questionId": 3,
    "question": "question-3",
    "inputDescription": "input description of question 3",
    "outputDescription": "Output description of question 3",
    "sampleInput": "sample input for question 3",
    "sampleOutput": "sample output for question 3"
  }
]
}
]

```

attendance:

```

[
  {
    "_id": ObjectId("614d7fc41e0a6864e1d41f28"),
    "id": 1,
    "batch": "B25-B",
    "classes": [
      {
        "id": 1,
        "date": ISODate("2020-09-28T00:00:00.000Z"),
        "sessionLink": "session-link",
        "recordingLink": "recording-link",
        "mentorId": ObjectId("614d79421e0a6864e1d41f1c"),
        "attendance": [
          ObjectId("614d76a11e0a6864e1d41f18"),
          ObjectId("614d76a11e0a6864e1d41f19"),

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```
        ObjectId("614d76a11e0a6864e1d41f1a"),
        ObjectId("614d76a11e0a6864e1d41f1b")
    ],
    "topicId": ObjectId("614d6c901e0a6864e1d41f03"),
    "taskId": ObjectId("614d6aa71e0a6864e1d41ef9")
},
{
    "id": 2,
    "date": ISODate("2020-10-01T00:00:00.000Z"),
    "sessionLink": "session-link",
    "recordingLink": "recording-link",
    "mentorId": ObjectId("614d79421e0a6864e1d41f1c"),
    "attendance": [
        ObjectId("614d76a11e0a6864e1d41f18"),
        ObjectId("614d76a11e0a6864e1d41f19"),
        ObjectId("614d76a11e0a6864e1d41f1b")
    ],
    "topicId": ObjectId("614d6c901e0a6864e1d41f04"),
    "taskId": ObjectId("614d6aa71e0a6864e1d41efa")
},
{
    "id": 3,
    "date": ISODate("2020-10-02T00:00:00.000Z"),
    "sessionLink": "session-link",
    "recordingLink": "recording-link",
    "mentorId": ObjectId("614d79421e0a6864e1d41f1c"),
    "attendance": [
        ObjectId("614d76a11e0a6864e1d41f18"),
        ObjectId("614d76a11e0a6864e1d41f1a"),
        ObjectId("614d76a11e0a6864e1d41f1b")
    ]
}
```

```
],
  "topicId": ObjectId("614d6c901e0a6864e1d41f05"),
  "taskId": ObjectId("614d6aa71e0a6864e1d41efb")
},
{
  "id": 4,
  "date": ISODate("2020-10-05T00:00:00.000Z"),
  "sessionLink": "session-link",
  "recordingLink": "recording-link",
  "mentorId": ObjectId("614d79421e0a6864e1d41f1c"),
  "attendance": [
    ObjectId("614d76a11e0a6864e1d41f18")
  ],
  "topicId": ObjectId("614d6c901e0a6864e1d41f06"),
  "taskId": ObjectId("614d6aa71e0a6864e1d41efc")
},
{
  "id": 5,
  "date": ISODate("2020-10-08T00:00:00.000Z"),
  "sessionLink": "session-link",
  "recordingLink": "recording-link",
  "mentorId": ObjectId("614d79421e0a6864e1d41f1c"),
  "attendance": [
    ObjectId("614d76a11e0a6864e1d41f18"),
    ObjectId("614d76a11e0a6864e1d41f19"),
    ObjectId("614d76a11e0a6864e1d41f1a"),
    ObjectId("614d76a11e0a6864e1d41f1b")
  ],
  "topicId": ObjectId("614d6c901e0a6864e1d41f07"),
  "taskId": ObjectId("614d6aa71e0a6864e1d41efd")
}
```

```
},
{
  "id": 6,
  "date": ISODate("2020-10-12T00:00:00.000Z"),
  "sessionLink": "session-link",
  "recordingLink": "recording-link",
  "mentorId": ObjectId("614d79421e0a6864e1d41f1c"),
  "attendance": [
    ObjectId("614d76a11e0a6864e1d41f1a"),
    ObjectId("614d76a11e0a6864e1d41f1b")
  ],
  "topicId": ObjectId("614d6c901e0a6864e1d41f08"),
  "taskId": ObjectId("614d6aa71e0a6864e1d41efe")
},
{
  "id": 7,
  "date": ISODate("2020-10-15T00:00:00.000Z"),
  "sessionLink": "session-link",
  "recordingLink": "recording-link",
  "mentorId": ObjectId("614d79421e0a6864e1d41f1c"),
  "attendance": [
    ObjectId("614d76a11e0a6864e1d41f18")
  ],
  "topicId": ObjectId("614d6c901e0a6864e1d41f09"),
  "taskId": ObjectId("614d6aa71e0a6864e1d41eff")
},
{
  "id": 8,
  "date": ISODate("2020-10-19T00:00:00.000Z"),
  "sessionLink": "session-link",
```

```
"recordingLink": "recording-link",
"mentorId": ObjectId("614d79421e0a6864e1d41f1c"),
"attendance": [
  ObjectId("614d76a11e0a6864e1d41f1b")
],
"topicId": ObjectId("614d6c901e0a6864e1d41f0a"),
"taskId": ObjectId("614d6aa71e0a6864e1d41f00")
},
{
  "id": 9,
  "date": ISODate("2020-10-21T00:00:00.000Z"),
  "sessionLink": "session-link",
  "recordingLink": "recording-link",
  "mentorId": ObjectId("614d79421e0a6864e1d41f1c"),
  "attendance": [
    ObjectId("614d76a11e0a6864e1d41f18"),
    ObjectId("614d76a11e0a6864e1d41f19"),
    ObjectId("614d76a11e0a6864e1d41f1a"),
    ObjectId("614d76a11e0a6864e1d41f1b")
  ],
  "topicId": ObjectId("614d6c901e0a6864e1d41f0b"),
  "taskId": ObjectId("614d6aa71e0a6864e1d41f01")
},
{
  "id": 10,
  "date": ISODate("2020-10-23T00:00:00.000Z"),
  "sessionLink": "session-link",
  "recordingLink": "recording-link",
  "mentorId": ObjectId("614d79421e0a6864e1d41f1c"),
  "attendance": [
```

```
        ObjectId("614d76a11e0a6864e1d41f19"),
        ObjectId("614d76a11e0a6864e1d41f1b")
    ],
    "topicId": ObjectId("614d6c901e0a6864e1d41f0c"),
    "taskId": ObjectId("614d6aa71e0a6864e1d41f02")
},
{
    "id": 11,
    "date": ISODate("2020-10-26T00:00:00.000Z"),
    "sessionLink": "session-link",
    "recordingLink": "recording-link",
    "mentorId": ObjectId("614d79421e0a6864e1d41f1c"),
    "attendance": [
        ObjectId("614d76a11e0a6864e1d41f18"),
        ObjectId("614d76a11e0a6864e1d41f19"),
        ObjectId("614d76a11e0a6864e1d41f1b")
    ],
    "topicId": ObjectId("614d6c901e0a6864e1d41f0c"),
    "taskId": ObjectId("614d6aa71e0a6864e1d41f02")
},
{
    "id": 12,
    "date": ISODate("2020-10-28T00:00:00.000Z"),
    "sessionLink": "session-link",
    "recordingLink": "recording-link",
    "mentorId": ObjectId("614d79421e0a6864e1d41f1c"),
    "attendance": [
        ObjectId("614d76a11e0a6864e1d41f18"),
        ObjectId("614d76a11e0a6864e1d41f19"),
        ObjectId("614d76a11e0a6864e1d41f1a")
    ]
}
```



```
],
  "topicId": ObjectId("614d6c901e0a6864e1d41f0c"),
  "taskId": ObjectId("614d6aa71e0a6864e1d41f02")
},
{
  "id": 13,
  "date": ISODate("2020-10-31T00:00:00.000Z"),
  "sessionLink": "session-link",
  "recordingLink": "recording-link",
  "mentorId": ObjectId("614d79421e0a6864e1d41f1c"),
  "attendance": [
    ObjectId("614d76a11e0a6864e1d41f18"),
    ObjectId("614d76a11e0a6864e1d41f1b")
  ],
  "topicId": ObjectId("614d6c901e0a6864e1d41f0c"),
  "taskId": ObjectId("614d6aa71e0a6864e1d41f02")
},
{
  "id": 14,
  "date": ISODate("2020-11-01T00:00:00.000Z"),
  "sessionLink": "session-link",
  "recordingLink": "recording-link",
  "mentorId": ObjectId("614d79421e0a6864e1d41f1c"),
  "attendance": [
    ObjectId("614d76a11e0a6864e1d41f18"),
    ObjectId("614d76a11e0a6864e1d41f19"),
    ObjectId("614d76a11e0a6864e1d41f1a")
  ],
  "topicId": ObjectId("614d6c901e0a6864e1d41f0c"),
  "taskId": ObjectId("614d6aa71e0a6864e1d41f02")
}
```

```
    }  
  ]  
}  
]
```

topics:

```
[  
  {  
    "_id": ObjectId("614d6c901e0a6864e1d41f03"),  
    "id": 1,  
    "title": "session title-1",  
    "contents": "session contents-1",  
    "pre-read": "pre-read session topics-1"  
  },  
  {  
    "_id": ObjectId("614d6c901e0a6864e1d41f04"),  
    "id": 2,  
    "title": "session title-2",  
    "contents": "session contents-2",  
    "pre-read": "pre-read session topics-2"  
  },  
  {  
    "_id": ObjectId("614d6c901e0a6864e1d41f05"),  
    "id": 3,  
    "title": "session title-3",  
    "contents": "session contents-3",  
    "pre-read": "pre-read session topics-3"  
  },  
  {  
    "_id": ObjectId("614d6c901e0a6864e1d41f06"),  
    "id": 4,
```

```
"title": "session title-4",
"contents": "session contents-4",
"pre-read": "pre-read session topics-4"
},
{
  "_id": ObjectId("614d6c901e0a6864e1d41f07"),
  "id": 5,
  "title": "session title-5",
  "contents": "session contents-5",
  "pre-read": "pre-read session topics-5"
},
{
  "_id": ObjectId("614d6c901e0a6864e1d41f08"),
  "id": 6,
  "title": "session title-6",
  "contents": "session contents-6",
  "pre-read": "pre-read session topics-6"
},
{
  "_id": ObjectId("614d6c901e0a6864e1d41f09"),
  "id": 7,
  "title": "session title-7",
  "contents": "session contents-7",
  "pre-read": "pre-read session topics-7"
},
{
  "_id": ObjectId("614d6c901e0a6864e1d41f0a"),
  "id": 8,
  "title": "session title-8",
  "contents": "session contents-8",
```

```
    "pre-read": "pre-read session topics-8"
  },
  {
    "_id": ObjectId("614d6c901e0a6864e1d41f0b"),
    "id": 9,
    "title": "session title-9",
    "contents": "session contents-9",
    "pre-read": "pre-read session topics-9"
  },
  {
    "_id": ObjectId("614d6c901e0a6864e1d41f0c"),
    "id": 10,
    "title": "session title-10",
    "contents": "session contents-10",
    "pre-read": "pre-read session topics-10"
  }
]
```

tasks:

```
[
  {
    "_id": ObjectId("614d6aa71e0a6864e1d41ef9"),
    "id": 1,
    "taskName": "task-1",
    "taskDescription": "task-1 description",
    "taskLink": "http://tasklink.com"
  },
  {
    "_id": ObjectId("614d6aa71e0a6864e1d41efa"),
    "id": 2,
    "taskName": "task-2",
```

```
"taskDescription": "task-2 description",
"taskLink": "http://tasklink.com"
},
{
  "_id": ObjectId("614d6aa71e0a6864e1d41efb"),
  "id": 3,
  "taskName": "task-3",
  "taskDescription": "task-3 description",
  "taskLink": "http://tasklink.com"
},
{
  "_id": ObjectId("614d6aa71e0a6864e1d41efc"),
  "id": 4,
  "taskName": "task-4",
  "taskDescription": "task-4 description",
  "taskLink": "http://tasklink.com"
},
{
  "_id": ObjectId("614d6aa71e0a6864e1d41efd"),
  "id": 5,
  "taskName": "task-5",
  "taskDescription": "task-5 description",
  "taskLink": "http://tasklink.com"
},
{
  "_id": ObjectId("614d6aa71e0a6864e1d41efe"),
  "id": 6,
  "taskName": "task-6",
  "taskDescription": "task-6 description",
  "taskLink": "http://tasklink.com"
```

```
    },  
    {  
      "_id": ObjectId("614d6aa71e0a6864e1d41eff"),  
      "id": 7,  
      "taskName": "task-7",  
      "taskDescription": "task-7 description",  
      "taskLink": "http://tasklink.com"  
    },  
    {  
      "_id": ObjectId("614d6aa71e0a6864e1d41f00"),  
      "id": 8,  
      "taskName": "task-8",  
      "taskDescription": "task-8 description",  
      "taskLink": "http://tasklink.com"  
    },  
    {  
      "_id": ObjectId("614d6aa71e0a6864e1d41f01"),  
      "id": 9,  
      "taskName": "task-9",  
      "taskDescription": "task-9 description",  
      "taskLink": "http://tasklink.com"  
    },  
    {  
      "_id": ObjectId("614d6aa71e0a6864e1d41f02"),  
      "id": 10,  
      "taskName": "task-10",  
      "taskDescription": "task-10 description",  
      "taskLink": "http://tasklink.com"  
    }  
  ]
```

company drives:

```
[
  {
    "_id": ObjectId("614d7aa31e0a6864e1d41f21"),
    "id": 1,
    "companyName": "company 1",
    "date": ISODate("2020-10-14T00:00:00.000Z"),
    "studentsAttended": [
      ObjectId("614d76a11e0a6864e1d41f18"),
      ObjectId("614d76a11e0a6864e1d41f19"),
      ObjectId("614d76a11e0a6864e1d41f1a"),
      ObjectId("614d76a11e0a6864e1d41f1b")
    ]
  },
  {
    "_id": ObjectId("614d7aa31e0a6864e1d41f22"),
    "id": 2,
    "companyName": "company 2",
    "date": ISODate("2020-10-15T00:00:00.000Z"),
    "studentsAttended": [
      ObjectId("614d76a11e0a6864e1d41f19"),
      ObjectId("614d76a11e0a6864e1d41f1a"),
      ObjectId("614d76a11e0a6864e1d41f1b")
    ]
  },
  {
    "_id": ObjectId("614d7aa31e0a6864e1d41f23"),
    "id": 3,
    "companyName": "company 3",
    "date": ISODate("2020-10-17T00:00:00.000Z"),
```

```
"studentsAttended": [  
  ObjectId("614d76a11e0a6864e1d41f18"),  
  ObjectId("614d76a11e0a6864e1d41f19"),  
  ObjectId("614d76a11e0a6864e1d41f1a"),  
]  
},  
{  
  "_id": ObjectId("614d7aa31e0a6864e1d41f24"),  
  "id": 4,  
  "companyName": "company 4",  
  "date": ISODate("2020-10-19T00:00:00.000Z"),  
  "studentsAttended": [  
    ObjectId("614d76a11e0a6864e1d41f18"),  
    ObjectId("614d76a11e0a6864e1d41f19")  
  ]  
},  
{  
  "_id": ObjectId("614d7aa31e0a6864e1d41f25"),  
  "id": 5,  
  "companyName": "company 5",  
  "date": ISODate("2020-10-24T00:00:00.000Z"),  
  "studentsAttended": [  
    ObjectId("614d76a11e0a6864e1d41f19"),  
    ObjectId("614d76a11e0a6864e1d41f1a"),  
  ]  
},  
{  
  "_id": ObjectId("614d7aa31e0a6864e1d41f26"),  
  "id": 6,  
  "companyName": "company 6",
```



```
"date": ISODate("2020-11-01T00:00:00.000Z"),
"studentsAttended": [
  ObjectId("614d76a11e0a6864e1d41f18"),
  ObjectId("614d76a11e0a6864e1d41f19"),
  ObjectId("614d76a11e0a6864e1d41f1b")
]
}
```

mentors:

```
[
  {
    "_id": ObjectId("614d79421e0a6864e1d41f1c"),
    "id": 1,
    "mentorName": "mentor-1",
    "email": "mentor1@gmail.com",
    "password": "hashedpassword",
    "menteesCount": 21
  },
  {
    "_id": ObjectId("614d79421e0a6864e1d41f1d"),
    "id": 2,
    "mentorName": "mentor-2",
    "email": "mentor2@gmail.com",
    "password": "hashedpassword",
    "menteesCount": 12
  },
  {
    "_id": ObjectId("614d79421e0a6864e1d41f1e"),
    "id": 3,
```

```

      "mentorName": "mentor-3",
      "email": "mentor3@gmail.com",
      "password": "hashedpassword",
      "menteesCount": 18
    },
    {
      "_id": ObjectId("614d79421e0a6864e1d41f1f"),
      "id": 4,
      "mentorName": "mentor-4",
      "email": "mentor4@gmail.com",
      "password": "hashedpassword",
      "menteesCount": 24
    },
    {
      "_id": ObjectId("614d79421e0a6864e1d41f20"),
      "id": 5,
      "mentorName": "mentor-5",
      "email": "mentor5@gmail.com",
      "password": "hashedpassword",
      "menteesCount": 12
    }
  ]

```

Queries:

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

```

db.attendance.aggregate ([
  {
    $match :{
      batch : "B25-B"
    }
  }
]

```

```

},
{
  $lookup : {
    from:"tasks",
    localField:"classes.taskId",
    foreignField:"_id",
    as:"tasks"
  }
},
{
  $lookup:{
    from:"topics",
    localField: "classes.topicId",
    foreignField: "id",
    as:"topics"
  }
},
{
  $unwind : "$classes"
},
{
  $unwind : "$tasks"
},
{
  $unwind : "$topics"
},
{
  $group : {
    _id: {
      month: { $month: "$classes.date" },

```

```

        year: { $year: "$classes.date" }
    },
    topics : {
        $addToSet : "$topics.title"
    },
    tasks : {
        $addToSet : "$tasks.taskName"
    }
}
},
{
    $match : {
        "_id.month": 10
    }
}
}).pretty()

```

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

```

db.companydrives.aggregate ([
    {
        $group : {
            _id : {
                day : { $dayOfMonth : "$date" },
                month : { $month : "$date" },
                year : { $year : "$date" }
            },
            companyName : {
                $push : "$companyName"
            }
        }
    }
])

```

```

    },
    {
      $match: {
        "_id.day": {$gte: 15, $lte: 31},
        "_id.month": 10,
        "_id.year": 2020
      }
    },
    {
      $project: {
        _id: 1,
        companyName: 1
      }
    }
  ]
})

```

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

```

db.companydrives.aggregate ([
  {
    $lookup:{
      from: "users",
      localField: "studentsAttended",
      foreignField:"_id",
      as: "students"
    }
  },
  {
    $unwind : "$students"
  },
  {

```

```

    $group: {
      _id: null,
      "students": { $addToSet: "$students.studentName" },
      "companyName": { $addToSet: "$companyName" }
    }
  },
  {
    $project: {
      _id: 0,
      students: 1,
      companyName: 1
    }
  }
}).pretty()

```

Find the number of problems solved by the user in codekata

```

db.users.find ({_id: ObjectId("614d76a11e0a6864e1d41f18")},{codekataSolvedCount :
1}).pretty()

```

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

```

db.mentor.find ({menteesCount: { $gt: 15 }},{mentorName: 1, menteesCount: 1}).pretty()

```

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

```

let allStudentsID = db.users.find({ }, { _id:1 }).map((item) => item._id)
db.attendance.aggregate([
  {
    $match : {

```

```

        batch : "B25-B"
    }
},
{
    $unwind : "$classes"
},
{
    $lookup:{
        from:"users",
        localField:"classes.attendance",
        foreignField:"_id",
        as:"studentsAttendance"
    }
},
{
    $unwind : "$studentsAttendance"
},
{
    $match : {
        "classes.date" : { $gte : new ISODate("2020-10-15"),$lte : new ISODate("2020-10-
31")}
    }
},
{
    $group : {
        _id : {
            day : { $dayOfMonth : "$classes.date" },
            month : { $month : "$classes.date" },
            year : { $year : "$classes.date" },
        },
        studentsPresent : {

```

```

        $addToSet : "$studentsAttendance._id"
    },
    tasksId : {
        $addToSet : "$classes.taskId"
    }
}
},{
    $project : {
        _id : 1 ,
        studentsAbsent : {
            $setDifference : [allStudentsID,"$studentsPresent"]
        }
    }
}
}).pretty()

```