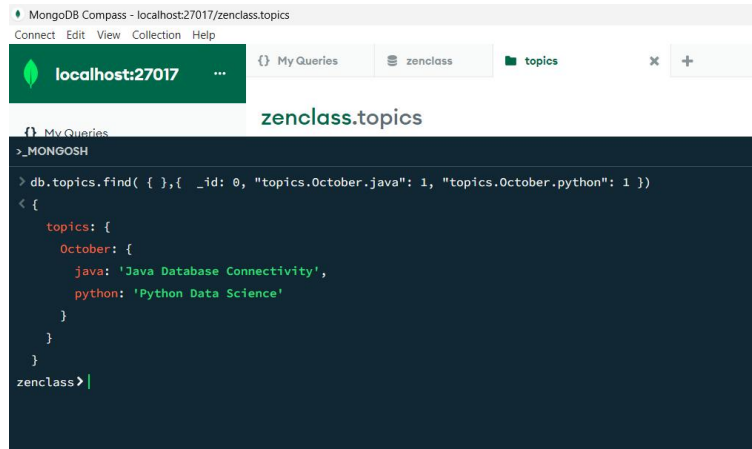


## Design database for Zen class programme

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



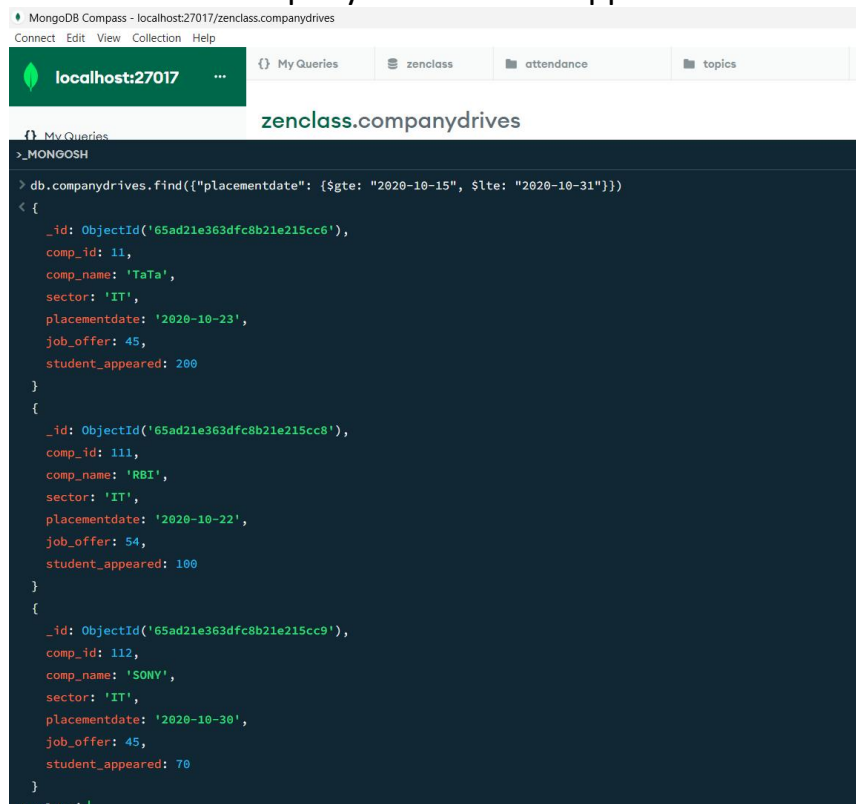
The screenshot shows the MongoDB Compass interface. The top bar indicates the connection to 'localhost:27017/zenclass.topics'. The left sidebar shows the 'topics' collection selected. The main panel displays a MongoDB query in the 'My Queries' tab:

```
> db.topics.find( { }, { _id: 0, "topics.October.java": 1, "topics.October.python": 1 })
```

The result shows a document with the following structure:

```
{
  "topics": {
    "October": {
      "java": "Java Database Connectivity",
      "python": "Python Data Science"
    }
  }
}
```

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



The screenshot shows the MongoDB Compass interface. The top bar indicates the connection to 'localhost:27017/zenclass.companydrives'. The left sidebar shows the 'companydrives' collection selected. The main panel displays a MongoDB query in the 'My Queries' tab:

```
> db.companydrives.find({"placementdate": {$gte: "2020-10-15", $lte: "2020-10-31"}})
```

The result shows three documents:

```
{
  "_id": ObjectId('65ad21e363dfc8b21e215cc6'),
  "comp_id": 11,
  "comp_name": 'TaTa',
  "sector": 'IT',
  "placementdate": '2020-10-23',
  "job_offer": 45,
  "student_appeared": 200
}

{
  "_id": ObjectId('65ad21e363dfc8b21e215cc8'),
  "comp_id": 111,
  "comp_name": 'RBI',
  "sector": 'IT',
  "placementdate": '2020-10-22',
  "job_offer": 54,
  "student_appeared": 100
}

{
  "_id": ObjectId('65ad21e363dfc8b21e215cc9'),
  "comp_id": 112,
  "comp_name": 'SONY',
  "sector": 'IT',
  "placementdate": '2020-10-30',
  "job_offer": 45,
  "student_appeared": 70
}
```

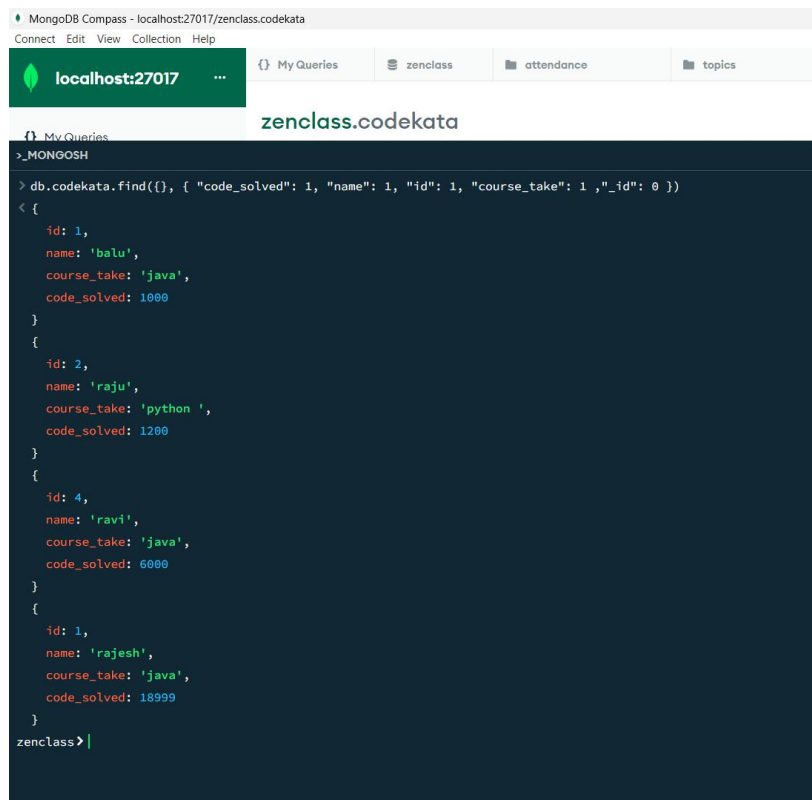
### 3. Find all the company drives and students who are appeared for the placement.



The screenshot shows the MongoDB Compass interface. The title bar indicates the connection to 'localhost:27017/zenclass.companydrives'. The top navigation bar includes 'Connect', 'Edit', 'View', 'Collection', and 'Help'. Below this, a green bar shows 'localhost:27017' and a menu icon. The main area displays the 'zenclass.companydrives' collection. A query is entered in the 'My Queries' tab: `db.companydrives.find({}, { "comp_name": 1, "student_appeared": 1, "_id": 0 })`. The results are shown as a JSON array of documents.

```
>_MONGOSH
> db.companydrives.find({}, { "comp_name": 1, "student_appeared": 1, "_id": 0 })
< [
  {
    comp_name: 'TaTa',
    student_appeared: 200
  },
  {
    comp_name: 'IBM',
    student_appeared: 200
  },
  {
    comp_name: 'RBI',
    student_appeared: 100
  },
  {
    comp_name: 'SONY',
    student_appeared: 70
  },
  {
    comp_name: 'ESPORT',
    student_appeared: 100
  },
  {
    comp_name: 'ASUS',
    student_appeared: 90
  }
]
```

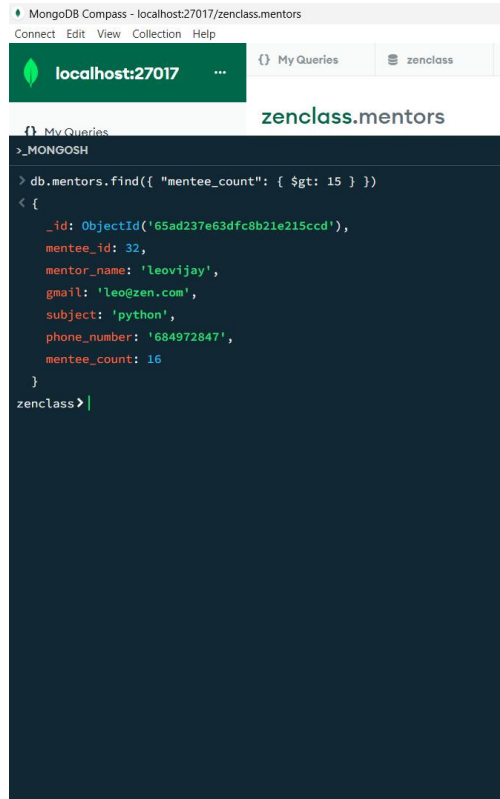
### 4. Find the number of problems solved by the user in codekata



The screenshot shows the MongoDB Compass interface. The title bar indicates the connection to 'localhost:27017/zenclass.codekata'. The top navigation bar includes 'Connect', 'Edit', 'View', 'Collection', and 'Help'. Below this, a green bar shows 'localhost:27017' and a menu icon. The main area displays the 'zenclass.codekata' collection. A query is entered in the 'My Queries' tab: `db.codekata.find({}, { "code_solved": 1, "name": 1, "id": 1, "course_take": 1, "_id": 0 })`. The results are shown as a JSON array of documents.

```
>_MONGOSH
> db.codekata.find({}, { "code_solved": 1, "name": 1, "id": 1, "course_take": 1, "_id": 0 })
< [
  {
    id: 1,
    name: 'balu',
    course_take: 'java',
    code_solved: 1000
  },
  {
    id: 2,
    name: 'raju',
    course_take: 'python ',
    code_solved: 1200
  },
  {
    id: 4,
    name: 'ravi',
    course_take: 'java',
    code_solved: 6000
  },
  {
    id: 1,
    name: 'rajesh',
    course_take: 'java',
    code_solved: 18999
  }
]
```

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



The screenshot shows the MongoDB Compass interface. The top bar indicates the connection to 'localhost:27017/zenclass.mentors'. The left sidebar shows the 'My Queries' tab. The main area displays the query: `db.mentors.find({ "mentee_count": { $gt: 15 } })`. The result is a single document: `{ "_id": ObjectId('65ad237e63dfc8b21e215ccd'), "mentee_id": 32, "mentor_name": 'leovijay', "gmail": 'leo@zen.com', "subject": 'python', "phone_number": '684972847', "mentee_count": 16 }`.

```
> db.mentors.find({ "mentee_count": { $gt: 15 } })
< {
  _id: ObjectId('65ad237e63dfc8b21e215ccd'),
  mentee_id: 32,
  mentor_name: 'leovijay',
  gmail: 'leo@zen.com',
  subject: 'python',
  phone_number: '684972847',
  mentee_count: 16
}
```

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



The screenshot shows the MongoDB Compass interface. The top bar indicates the connection to 'localhost:27017/zenclass.mentors'. The left sidebar shows the 'My Queries' tab. The main area displays the query: `db.mentors.find({ "mentee_count": { $gt: 15 } })`. The result is a single document: `{ "_id": ObjectId('65ad237e63dfc8b21e215ccd'), "mentee_id": 32, "mentor_name": 'leovijay', "gmail": 'leo@zen.com', "subject": 'python', "phone_number": '684972847', "mentee_count": 16 }`.

```
{
  id: 4,
  name: 'ravi',
  course_take: 'java',
  ...
}
```