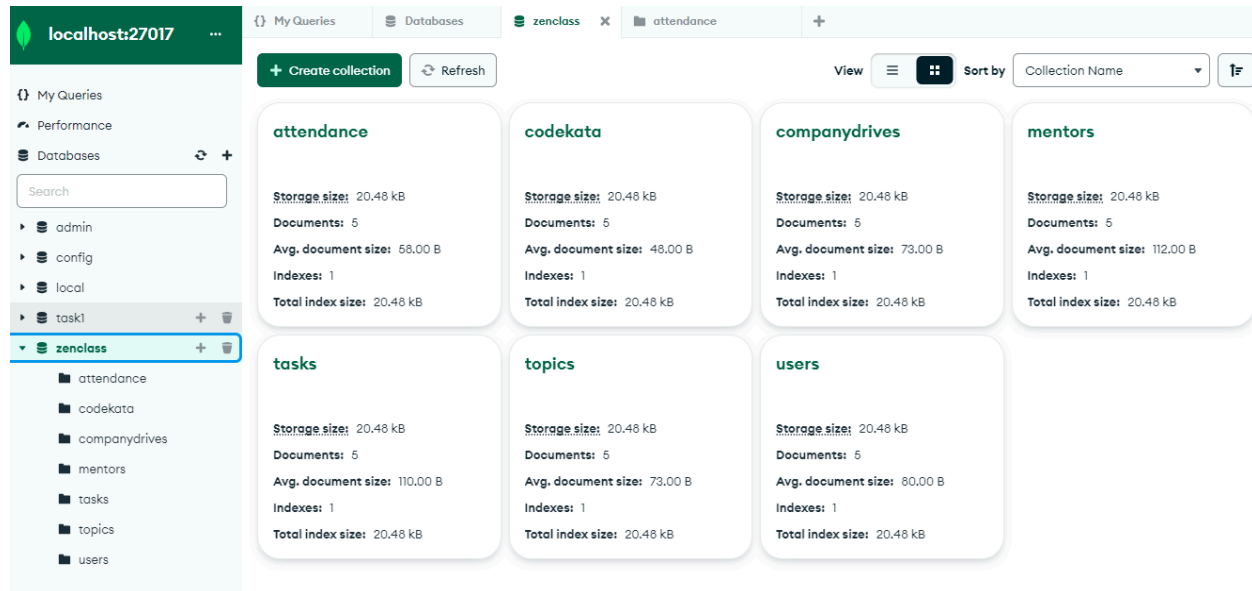


MongoDB Task2

Created Database zenclass



1. Find all the topics and tasks which are taught 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"}
])
```