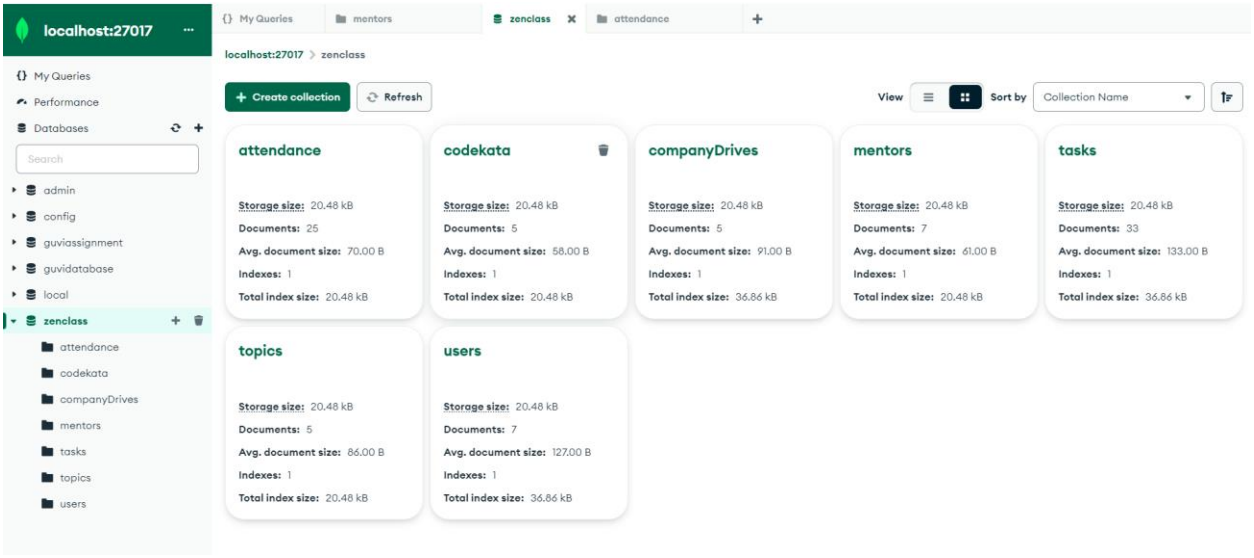
MongoDB Task



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

Answer: db.topics.aggregate([{ $lookup: { from: 'tasks', localField: 'topicID', foreignField: 'topicID', as: 'data' } }, {$unwind: '$data'}, {$match: {'topicDate': {$gte: new Date('2020-10-01'), $lt: new Date('2020-11-01')}}}, {$group: {_id:{topicID: '$topicID', topicName: '$topicName', topicDate: '$topicDate', taskName: '$data.taskName', taskDate: '$data.taskDate'}}}, { $project: { _id: 0, 'topicID': '$_id.topicID', 'topicName': '$_id.topicName', 'topicDate': {$dateToString: {format: "%Y-%m-%d", date: "$_id.topicDate" }}, 'taskName': "$_id.taskName", 'taskDate': {$dateToString: {format: "%Y-%m-%d", date: "$_id.taskDate" }} } }])

```
zenclass> db.topics.aggregate([{ $lookup: { from: 'tasks', localField: 'topicID', foreignField: 'topicID', as: 'data' } }, {$unwind: '$data'}, {$match: {'to
picDate': {$gte: new Date('2020-10-01'), $lt: new Date('2020-11-01')}}}, {$group: {_id:{topicID: '$topicID', topicName: '$topicName', topicDate: '$topicDate
', taskName: '$data.taskName', taskDate: '$data.taskDate'}}}, { $project: { _id: 0, 'topicID': '$_id.topicID', 'topicName': '$_id.topicName', 'topicDate': {
$dateToString: {format: "%Y-%m-%d", date: "$_id.topicDate" }}, 'taskName': "$_id.taskName", 'taskDate': {$dateToString: {format: "%Y-%m-%d", date: "$_id.tas
kDate" }} } }])
[
  {
    topicID: 3,
    topicName: 'Introduction to HTML & CSS',
    topicDate: '2020-10-02',
    taskName: 'Assignment 2: Intro to HTML & CSS',
    taskDate: '2020-10-09'
  },
  {
    topicID: 4,
    topicName: 'No SQL',
    topicDate: '2020-10-21',
    taskName: 'Assignment 1: No SQL',
    taskDate: '2020-10-22'
  },
  {
    topicID: 3,
    topicName: 'Introduction to HTML & CSS',
    topicDate: '2020-10-02',
    taskName: 'Assignment 1: Intro to HTML & CSS',
    taskDate: '2020-10-02'
  }
]
```

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

Answer: db.companyDrives.aggregate([{$match:{driveDate: {$gte: new Date('2020-10-15'), $lt: new Date('2020-10-31')}}}, {$project :{_id: 0, companyName: 1, driveDate: {$dateToString: {format: '%Y-%m-%d', date: '$driveDate'}}}}])

```
zenclass> db.companyDrives.aggregate([{$match:{driveDate: {$gte: new Date('2020-10-15'), $lt: new Date('2020-10-31')}}}, {$project :{_id: 0, companyName: 1,
 driveDate: {$dateToString: {format: '%Y-%m-%d', date: '$driveDate'}}}}])
[ { companyName: 'TCS Fresher Walkin', driveDate: '2020-10-27' } ]
zenclass>
```

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

Answer: db.companyDrives.aggregate([{$lookup: {from: 'users', localField: 'driveID', foreignField: 'driveID', as: 'student'}}, {$unwind: '$student'}, {$project: {_id: 0, companyName: 1, driveDate: {$dateToString: {format: "%Y-%m-%d", date: "$driveDate" }}, 'student.studentName': 1, 'student.studentEmail': 1}}])

```
zenclass> db.companyDrives.aggregate([{$lookup: {from: 'users', localField: 'driveID', foreignField: 'driveID', as: 'student'}}, {$unwind: '$student'}, {$pr
oject: {_id: 0, companyName: 1, driveDate: {$dateToString: {format: "%Y-%m-%d", date: "$driveDate" }}, 'student.studentName': 1, 'student.studentEmail': 1}}
])
[
  {
    companyName: 'Wipro Campus Interview',
    student: { studentName: 'Bala', studentEmail: 'bala@gmail.com' },
    driveDate: '2020-04-12'
  },
  {
    companyName: 'Wipro Campus Interview',
    student: { studentName: 'Nala', studentEmail: 'nala@gmail.com' },
    driveDate: '2020-04-12'
  },
  {
    companyName: 'Wipro Campus Interview',
    student: { studentName: 'Bem', studentEmail: 'bem@gmail.com' },
    driveDate: '2020-04-12'
  },
  {
    companyName: 'Infosys walk-in',
    student: { studentName: 'Krish', studentEmail: 'Krish@gmail.com' },
    driveDate: '2020-02-26'
  },
  {
    companyName: 'Infosys walk-in',
    student: { studentName: 'Bala', studentEmail: 'bala@gmail.com' },
    driveDate: '2020-02-26'
  },
  {
    companyName: 'Infosys walk-in',
    student: { studentName: 'Raj', studentEmail: 'raj@gmail.com' },
    driveDate: '2020-02-26'
  },
  {
    companyName: 'TCS Fresher Walkin',
    student: { studentName: 'Bala', studentEmail: 'bala@gmail.com' },
    driveDate: '2020-10-27'
  }
]
```

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

   Answer: db.codekata.aggregate([{$lookup: {from: 'users', localField: 'userID', foreignField: 'userID', as: 'user'}}, {$unwind: '$user'}, {$group: {_id:{ studentName: '$user.studentName', solvedProblemCount: '$solvedProblemCount'}}}, {$project: {_id:0, 'solvedcount': '$_id.solvedProblemCount', 'userName': '$_id.studentName', 'userID': '$_id.userID'}}])

```
zenclass> db.codekata.aggregate([{$lookup: {from: 'users', localField: 'userID', foreignField: 'userID', as: 'user'}}, {$unwind: '$user'}, {$group: {_id:{ s
tudentName: '$user.studentName', solvedProblemCount: '$solvedProblemCount'}}}, {$project: {_id:0, 'solvedcount': '$_id.solvedProblemCount', 'userName': '$_i
d.studentName', 'userID': '$_id.userID'}}])
[
  { solvedcount: 44, userName: 'Nala' },
  { solvedcount: 23, userName: 'Bem' },
  { solvedcount: 50, userName: 'Krish' },
  { solvedcount: 93, userName: 'Raj' },
  { solvedcount: 30, userName: 'Bala' }
]
```

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

Answer: db.mentors.find({menteesCount:{$gte:15}}).sort({menteesCount: -1})

```
zenclass> db.mentors.find({menteesCount:{$gte:15}}).sort({menteesCount: -1})
[
  {
    _id: ObjectId('667c45b9e9c846971390deff'),
    mentorName: 'Suresh',
    menteesCount: 22
  },
  {
    _id: ObjectId('667c45b9e9c846971390df04'),
    mentorName: 'Steve',
    menteesCount: 22
  },
  {
    _id: ObjectId('667c45b9e9c846971390defe'),
    mentorName: 'Venkat',
    menteesCount: 18
  },
  {
    _id: ObjectId('667c45b9e9c846971390df03'),
    mentorName: 'Nala',
    menteesCount: 16
  }
]
```

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

Answer: db.users.aggregate([{$lookup: {from: 'attendance', localField: 'userID', foreignField: 'userID', as: 'attendanceInfo'}}, { $lookup: {from: 'tasks',localField: 'userID', foreignField: 'userID', as: 'taskInfo'}}, { $unwind: '$attendanceInfo'}, {$unwind: '$taskInfo'}, {$match: {$and:[{'attendanceInfo.date': {$gte: new Date("2020-10-15"), $lte: new Date("2020-10-31")}}, {'taskInfo.taskDate': {$gte: new Date("2020-10-15"), $lte: new Date("2020-10-31")}}, {'attendanceInfo.status': 'not attended'}, {'taskInfo.taskStatus': 'not completed'}]}}, {$group: {_id: null, user_count: {$sum: 1}}}, {$project: {_id: 0, taskStatus: "not completed", status: "not attended", user_count: 1}}]);

```
]
zenclass> db.users.aggregate([{$lookup: {from: 'attendance', localField: 'userID', foreignField: 'userID', as: 'attendanceInfo'}}, { $lookup: {from: 'tasks'
,localField: 'userID',    foreignField: 'userID', as: 'taskInfo'}}, { $unwind: '$attendanceInfo'}, {$unwind: '$taskInfo'},  {$match: {$and:[{'attendanceInfo
.date': {$gte: new Date("2020-10-15"), $lte: new Date("2020-10-31")}}, {'taskInfo.taskDate': {$gte: new Date("2020-10-15"), $lte: new Date("2020-10-31")}},
{'attendanceInfo.status': 'not attended'}, {'taskInfo.taskStatus': 'not completed'}]}},  {$group: {_id: null, user_count: {$sum: 1}}},  {$project: {_id: 0,
taskStatus: "not completed", status: "not attended", user_count: 1}}]);
[
  {
    user_count: 1,
    taskStatus: 'not completed',
    status: 'not attended'
  }
]
zenclass>
```