

MongoDB Task - 2

This repository contains MongoDB queries for various tasks related to the Zen Class database collections.

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

```
db.topics.aggregate([
  {
    $lookup: {
      from: "tasks",
      localField: "_id",
      foreignField: "topic_id",
      as: "taskInfo"
    }
  },
  { $unwind: "$taskInfo" },
  {
    $match: {
      "topic_taught_date": {
        $gte: new Date("2020-10-01"),
        $lt: new Date("2020-11-01")
      },
      "taskInfo.task_taught_date": {
        $gte: new Date("2020-10-01"),
        $lt: new Date("2020-11-01")
      }
    }
  },
  {
    $project: {
      _id: 0,
      topic_name: 1,
      topic_taught_date: {
        $dateToString: { format: "%Y-%m-%d", date: "$topic_taught_date" }
      }
    }
  }
])
```

```

    },
    task_name: "$taskInfo.task_name",
    task_taught_date: {
      $dateToString: { format: "%Y-%m-%d", date: "$taskInfo.task_taught_date" }
    }
  }
}
});

```

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

```

db.company_drives.aggregate([
  { $match : {
    drive_date: {
      $gte: new Date("2020-10-15"),
      $lte: new Date("2020-10-31")
    }
  }},
  { $project: {
    _id: 0,
    drive_name: 1,
    drive_date: {
      $dateToString: { format: "%Y-%m-%d", date: "$drive_date" }
    }
  }},
  { $sort : {drive_date: 1} }
]);

```

3. Find all the company drives and students who have appeared for the placement?

```

db.company_drives.aggregate([

```

```

{ $lookup: {
  from: 'users',
  localField: '_id',
  foreignField: 'company_drive_id',
  as: 'studentInfo'
}},
{ $unwind: '$studentInfo' },
{ $match: {studentInfo.company_drive_status: 'attended' } },
{ $project: {
  _id: 0,
  drive_name: 1,
  drive_date: { $dateToString: { format: "%Y-%m-%d", date: "$drive_date" } },
  student_name: '$studentInfo.name',
  student_email: '$studentInfo.email',
  drive_status: '$studentInfo.company_drive_status',
}},
{ $sort: { drive_date: 1 } }
});

```

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

```

db.codekata.aggregate([
  { $lookup: {
    from: 'users',
    localField: 'user_id',
    foreignField: '_id',
    as: 'studentInfo'
  }},
  { $unwind: '$studentInfo' },
  { $group: {
    _id: {
      user_id: '$studentInfo._id',
      User_Name: '$studentInfo.name'
    },

```

```

    total_problems_solved: { $sum: 1 }
  }},
  { $project: {
    _id: 0,
    User_Name: '$_id.User_Name',
    total_problems_solved: 1
  }},
  { $sort: { total_problems_solved: -1 } }
});

```

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

```

db.mentors.aggregate([
  { $match : { mentees_count : { $gt : 15 } } },
  { $project : {
    _id : 0,
    mentor_name : 1,
    mentees_count : 1
  }},
  { $sort : { mentees_count : -1 } }
]);

```

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

```

db.users.aggregate([
  { $lookup: {
    from: 'attendance',
    localField: '_id',
    foreignField: 'user_id',
    as: 'attendanceInfo'
  }},

```

```
{ $lookup: {
  from: 'tasks',
  localField: '_id',
  foreignField: 'user_id',
  as: 'taskInfo'
}},
{ $unwind: '$attendanceInfo' },
{ $unwind: '$taskInfo' },
{ $match:
  { $and: [
    { 'attendanceInfo.date': { $gte: new Date("2020-10-15"),
      $lte: new Date("2020-10-31") } },
    { 'attendanceInfo.status': 'absent' },
    { 'taskInfo.task_status': 'not submitted' }
  ]
}},
{ $group: {
  _id: null, user_count: { $sum: 1 }
}},
{ $project: {
  _id: 0, task_status: "Not Submitted",
  attendance_status: "Absent", user_count: 1
}}
]);
```