

MongoDB-Task

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

```
db.topics.find({
  date_covered: {
    $gte: ISODate("2020-10-01"),
    $lte: ISODate("2020-10-31")
  }
});
```

```
// Tasks assigned in October
db.tasks.find({
  date_assigned: {
    $gte: ISODate("2020-10-01"),
    $lte: ISODate("2020-10-31")
  }
});
```

```
< {
  _id: ObjectId('617f1f77bcf86cd799439051'),
  task_name: 'JavaScript Assignment',
  user_id: ObjectId('617f1f77bcf86cd799439011'),
  date_assigned: 2020-10-06T00:00:00.000Z,
  status: 'submitted'
}
{
  _id: ObjectId('617f1f77bcf86cd799439052'),
  task_name: 'Node.js Project',
  user_id: ObjectId('617f1f77bcf86cd799439012'),
  date_assigned: 2020-10-15T00:00:00.000Z,
  status: 'not submitted'
}
{
  _id: ObjectId('617f1f77bcf86cd799439053'),
  task_name: 'MongoDB Practice',
  user_id: ObjectId('617f1f77bcf86cd799439013'),
  date_assigned: 2020-10-22T00:00:00.000Z,
  status: 'not submitted'
}
```

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

```
> db.company_Drive.find({
  drive_date: {
    $gte: ISODate("2020-10-15"),
    $lte: ISODate("2020-10-31")
  }
});
< {
  _id: ObjectId('617f1f77bcf86cd799439061'),
  company_name: 'Wipro',
  drive_date: 2020-10-16T00:00:00.000Z,
  participants: [
    ObjectId('617f1f77bcf86cd799439011'),
    ObjectId('617f1f77bcf86cd799439012')
  ]
}
{
  _id: ObjectId('617f1f77bcf86cd799439062'),
  company_name: 'Zoho',
  drive_date: 2020-10-18T00:00:00.000Z,
  participants: [
    ObjectId('617f1f77bcf86cd799439013')
  ]
}
```

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

```
> db.company_Drive.aggregate([
  {
    $lookup: {
      from: "users",
      localField: "participants",
      foreignField: "_id",
      as: "participants_info"
    }
  }
]);
< {
  _id: ObjectId('617f1f77bcf86cd799439061'),
  company_name: 'Wipro',
  drive_date: 2020-10-16T00:00:00.000Z,
  participants: [
    ObjectId('617f1f77bcf86cd799439011'),
    ObjectId('617f1f77bcf86cd799439012')
  ],
  participants_info: [
    {
      _id: ObjectId('617f1f77bcf86cd799439012'),
      name: 'Bob',
      email: 'bob@example.com',
      role: 'student',
      mentor_id: ObjectId('617f1f77bcf86cd799439101'),
      codekata_problems_solved: 150
    }
  ],
}
```

```

}
{
  _id: ObjectId('617f1f77bcf86cd799439063'),
  company_name: 'TCS',
  drive_date: 2020-11-19T00:00:00.000Z,
  participants: [
    ObjectId('617f1f77bcf86cd799439011')
  ],
  participants_info: [
    {
      _id: ObjectId('617f1f77bcf86cd799439011'),
      name: 'Alice',
      email: 'alice@example.com',
      role: 'student',
      mentor_id: ObjectId('617f1f77bcf86cd799439101'),
      codekata_problems_solved: 120
    }
  ]
}
{
  _id: ObjectId('617f1f77bcf86cd799439011'),
  name: 'Alice',
  email: 'alice@example.com',
  role: 'student',
  mentor_id: ObjectId('617f1f77bcf86cd799439101'),
  codekata_problems_solved: 120
}
]
}
{
  _id: ObjectId('617f1f77bcf86cd799439062'),
  company_name: 'Zoho',
  drive_date: 2020-10-18T00:00:00.000Z,
  participants: [
    ObjectId('617f1f77bcf86cd799439013')
  ],
  participants_info: [
    {
      _id: ObjectId('617f1f77bcf86cd799439013'),
      name: 'Charlie',
      email: 'charlie@example.com',
      role: 'student',
      mentor_id: ObjectId('617f1f77bcf86cd799439102'),
      codekata_problems_solved: 95
    }
  ]
}
]

```

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

```
> db.users.find(
  {},
  { name: 1, codekata_problems_solved: 1 }
);
< {
  _id: ObjectId('617f1f77bcf86cd799439011'),
  name: 'Alice',
  codekata_problems_solved: 120
}
{
  _id: ObjectId('617f1f77bcf86cd799439012'),
  name: 'Bob',
  codekata_problems_solved: 150
}
{
  _id: ObjectId('617f1f77bcf86cd799439013'),
  name: 'Charlie',
  codekata_problems_solved: 95
}
{
  _id: ObjectId('617f1f77bcf86cd799439101'),
  name: 'Mr. Smith'
}
{
  _id: ObjectId('617f1f77bcf86cd799439102'),
  name: 'Ms. Johnson'
}
```

5. Find all the mentors who have a mentee count more than 15?

```
> db.mentors.find({
  mentee_count: { $gt: 15 }
});
< {
  _id: ObjectId('617f1f77bcf86cd799439101'),
  mentor_name: 'Mr. Smith',
  mentee_count: 18,
  mentees: [
    ObjectId('617f1f77bcf86cd799439011'),
    ObjectId('617f1f77bcf86cd799439012')
  ]
}
```

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

```
< {
  _id: ObjectId('617f1f77bcf86cd799439013'),
  name: 'Charlie',
  absent_records: [
    {
      _id: ObjectId('617f1f77bcf86cd799439033'),
      user_id: ObjectId('617f1f77bcf86cd799439013'),
      date: 2020-10-17T00:00:00.000Z,
      status: 'absent'
    }
  ],
  unsubmitted_tasks: [
    {
      _id: ObjectId('617f1f77bcf86cd799439053'),
      task_name: 'MongoDB Practice',
      user_id: ObjectId('617f1f77bcf86cd799439013'),
      date_assigned: 2020-10-22T00:00:00.000Z,
      status: 'not submitted'
    }
  ]
}
```

Files Structure in MongoDB Compass:

