

DB Creation:

```
>_MONGOSH

> use zenclass
< switched to db zenclass
> db.createCollection('users')
< { ok: 1 }
> db.createCollection('codekata')
< { ok: 1 }
> db.createCollection('attendance')
< { ok: 1 }
> db.createCollection('topics')
< { ok: 1 }
> db.createCollection('tasks')
< { ok: 1 }
> db.createCollection('company_drives')
< { ok: 1 }
> db.createCollection('mentors')
< { ok: 1 }
```

Adding data:

Query used to add data into collection :**db.{collectionName}.insertOne()**

Example:

```
> db.topics.insertOne({
  "id": 31,
  "title": "MongoDB Basics",
  "date": ISODate("2020-10-15")
})
< {
  acknowledged: true,
  insertedId: ObjectId('68be7ba36d97f267d4546725')
}
> db.tasks.insertOne({
  "id": 41,
  "topic_id": 31,
  "user_id": 1,
  "username": "sastika",
  "submitted": false,
  "date": ISODate("2020-10-16")
})
< {
  acknowledged: true,
  insertedId: ObjectId('68be7bbf6d97f267d4546726')
}
```

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  "date": ISODate("2020-10-16")
})
< {
  acknowledged: true,
  insertedId: ObjectId('68be7bbf6d97f267d4546726')
}
```

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

```
> db.topics.find({
  date: { $gte: ISODate("2020-10-01"), $lte: ISODate("2020-10-31") }
});
< {
  _id: ObjectId('68be7ba36d97f267d4546725'),
  id: 31,
  title: 'MongoDB Basics',
  date: 2020-10-15T00:00:00.000Z
}
> db.tasks.find({
  username: "sastika",
  date: { $gte: ISODate("2020-10-01"), $lte: ISODate("2020-10-31") }
});
< {
  _id: ObjectId('68be7bbf6d97f267d4546726'),
  id: 41,
  topic_id: 31,
  user_id: 1,
  username: 'sastika',
  submitted: false,
  date: 2020-10-16T00:00:00.000Z
}
```

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

```
> db.company_drives.find({
  date: { $gte: ISODate("2020-10-15"), $lte: ISODate("2020-10-31") }
});
< {
  _id: ObjectId('68be7bef6d97f267d4546727'),
  id: 201,
  company: 'Google',
  date: 2020-10-20T00:00:00.000Z,
  appeared_users: [
    {
      user_id: 1,
      username: 'sastika'
    }
  ]
}
{
  _id: ObjectId('68be7c056d97f267d4546728'),
  id: 202,
  company: 'Amazon',
  date: 2020-10-25T00:00:00.000Z,
  appeared_users: []
}
```

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

```
> db.company_drives.aggregate([
  {
    $lookup: {
      from: "users",
      localField: "appeared_users.user_id",
      foreignField: "_id",
      as: "students"
    }
  },
  {
    $project: {
      company: 1,
      date: 1,
      "students.username": 1
    }
  }
]);
< {
  _id: ObjectId('68be7bef6d97f267d4546727'),
  company: 'Google',
  date: 2020-10-20T00:00:00.000Z,
  students: []
}
{
  _id: ObjectId('68be7c056d97f267d4546728'),
  company: 'Amazon',
  date: 2020-10-25T00:00:00.000Z,
  students: []
}
```

Find the number of problems solved by the user in codekata

```
> db.codekata.find(
  { username: "sastika" },
  { _id: 0, username: 1, problems_solved: 1 }
);
< {
  username: 'sastika',
  problems_solved: 120
}
```

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

```
> db.mentors.find({
  $where: "this.mentee_ids.length > 15"
});
```

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

```
> db.attendance.aggregate([
  {
    $match: {
      username: "sastika",
      status: "absent",
      date: { $gte: ISODate("2020-10-15"), $lte: ISODate("2020-10-31") }
    }
  },
  {
    $lookup: {
      from: "tasks",
      localField: "user_id",
      foreignField: "user_id",
      as: "pendingTasks"
    }
  },
  {
    $match: { "pendingTasks.submitted": false }
  },
  { $count: "sastika_absent_and_not_submitted" }
]);
< {
  sastika_absent_and_not_submitted: 1
}
```