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

```
db.task.aggregate([

  {

    $match: {

        deadline: {$gte: ISODate('2020-10-01') , $lte :
ISODate('2020-10-31')}

    }

  },

  {

    $project: {

      _id: 0 ,

      task_id: 1,

      task_name: 1,

      deadline : 1

    }

  },

  {

    $unionWith:{

      coll: "topics",

      pipeline: [

        {

          $match: {
```

```
                date: {$gte: ISODate('2020-10-01') , $lte : ISODate('2020-10-31')}

            }

        },

        {

            $project: {

                _id: 0 ,

                topic_id: 1,

                topic_name: 1,

                date : 1

            }

        },

        ]

    }

}

]).pretty();
```

```
db.task.aggregate([
    {
        $match: {
            deadline: {$gte: ISODate('2020-10-01') , $lte : ISODate('2020-10-31')}
        }
    },
    {
        $project: {
            _id: 0 ,
            task_id: 1,
            task_name: 1,
            deadline : 1
        }
    },
    {
        $unionWith:{
            coll: "topics",
            pipeline: [
                {
                    $match: {
                        date: {$gte: ISODate('2020-10-01') , $lte : ISODate('2020-10-31')}
                    }
                },
                {
                    $project: {
                        _id: 0 ,
                        topic_id: 1,
                        topic_name: 1,
                        date : 1
                    }
                },
            ]
        }
    }
]).pretty();
```

```
...                          _id: 0 ,
...                          topic_id: 1,
...                          topic_name: 1,
...                          date : 1
...                      }
...                  },
...              ]
...          }
...      }
...  ]).pretty();
{
        "task_id" : 1,
        "task_name" : "React Redux",
        "deadline" : ISODate("2020-10-01T00:00:00Z")
}
{
        "task_id" : 2,
        "task_name" : "SB-Admin",
        "deadline" : ISODate("2020-10-07T00:00:00Z")
}
{
        "task_id" : 3,
        "task_name" : "Shopping Cart",
        "deadline" : ISODate("2020-10-13T00:00:00Z")
}
{
        "task_id" : 4,
        "task_name" : "File System",
        "deadline" : ISODate("2020-10-21T00:00:00Z")
}
{
        "task_id" : 5,
        "task_name" : "Price Cart",
        "deadline" : ISODate("2020-10-29T00:00:00Z")
}
{
        "topic_id" : 1,
        "topic_name" : "JavaScript",
        "date" : ISODate("2020-10-14T00:00:00Z")
}
{
        "topic_id" : 2,
        "topic_name" : "React.js",
        "date" : ISODate("2020-10-21T00:00:00Z")
}
{
        "topic_id" : 3,
        "topic_name" : "MySQL",
        "date" : ISODate("2020-10-26T00:00:00Z")
}
>
```

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

db.company.find({date: {$gte: ISODate('2020-10-15') , $lte : ISODate('2020-10-31') }}).pretty();

```
}
> db.company.find({date: {$gte: ISODate('2020-10-15') , $lte : ISODate('2020-10-31') }}).pretty();
{
        "_id" : ObjectId("65ff1c40d27205534761cb64"),
        "drive_id" : 4,
        "company_name" : "Accenture",
        "date" : ISODate("2020-10-16T00:00:00Z"),
        "students" : [
                "jack"
        ]
}
{
        "_id" : ObjectId("65ff1c40d27205534761cb65"),
        "drive_id" : 5,
        "company_name" : "IBM",
        "date" : ISODate("2020-10-23T00:00:00Z"),
        "students" : [
                "max"
        ]
}
>
```

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

```
db.company.aggregate([
    {
        $lookup: {
            from: "users",
            localField: "students",
            foreignField: "user_name",
            as : "Placed"
        }
    },
    {
        $unwind: {
            path: "$Placed"
        }
    },
    {
        $project: {
            _id: 0,
            company_name: 1,
            date: 1,
            "Placed.user_id" : 1,
            "Placed.user_name": 1,
            "Placed.email": 1
        }
    }
]).pretty();
```

```
...            "Placed.user_name": 1,
...            "Placed.email": 1
...        }
...    }
... ]).pretty();
{
    "company_name" : "Google",
    "date" : ISODate("2020-10-02T00:00:00Z"),
    "Placed" : {
            "user_id" : 1,
            "user_name" : "joe",
            "email" : "joe@gmail.com"
    }
}
{
    "company_name" : "Google",
    "date" : ISODate("2020-10-02T00:00:00Z"),
    "Placed" : {
            "user_id" : 2,
            "user_name" : "john",
            "email" : "john@gmail.com"
    }
}
{
    "company_name" : "Microsoft",
    "date" : ISODate("2020-10-07T00:00:00Z"),
    "Placed" : {
            "user_id" : 5,
            "user_name" : "alice",
            "email" : "alice@gmail.com"
    }
}
{
    "company_name" : "Accenture",
    "date" : ISODate("2020-10-16T00:00:00Z"),
    "Placed" : {
            "user_id" : 4,
            "user_name" : "jack",
            "email" : "jack@gmail.com"
    }
}
{
    "company_name" : "IBM",
    "date" : ISODate("2020-10-23T00:00:00Z"),
    "Placed" : {
            "user_id" : 3,
            "user_name" : "max",
            "email" : "max@gmail.com"
    }
}
>
```

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

```
db.users.aggregate([

  {

    $unwind: "$problem_id"

  },

  {

    $lookup: {

      from: "codekata",

      localField: "problem_id",

      foreignField: "problem_id",

      as: "solved_problems"
```

```
    }
  },
  {
    $group: {
      _id: "$user_id",
      user_name: { $first: "$user_name" },
      solved_problems_count: { $sum: 1 }
    }
  },
  {
    $project: {
      _id: 0,
      user_id: "$_id",
      user_name: 1,
      solved_problems_count: 1
    }
  }
])
```

```
> db.users.aggregate([
...     {
...       $unwind: "$problem_id"
...     },
...     {
...       $lookup: {
...         from: "codekata",
...         localField: "problem_id",
...         foreignField: "problem_id",
...         as: "solved_problems"
...       }
...     },
...     {
...       $group: {
...         _id: "$user_id",
...         user_name: { $first: "$user_name" },
...         solved_problems_count: { $sum: 1 }
...       }
...     },
...     {
...       $project: {
...         _id: 0,
...         user_id: "$_id",
...         user_name: 1,
...         solved_problems_count: 1
...       }
...     }
...   ])
{ "user_name" : "max", "solved_problems_count" : 2, "user_id" : 3 }
{ "user_name" : "jack", "solved_problems_count" : 2, "user_id" : 4 }
{ "user_name" : "joe", "solved_problems_count" : 3, "user_id" : 1 }
{ "user_name" : "john", "solved_problems_count" : 2, "user_id" : 2 }
{ "user_name" : "alice", "solved_problems_count" : 4, "user_id" : 5 }
>
```

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

db.mentor.find({mentees_count:{ $gt: 15}}).pretty();

```
db.mentor.find({mentees_count:{ $gt: 15}}).pretty();

    "_id" : ObjectId("65ff1600d27205534761cb57"),
    "mentor_id" : 1,
    "mentor_name" : "Abhishek",
    "mentees_count" : 16


    "_id" : ObjectId("65ff1600d27205534761cb58"),
    "mentor_id" : 2,
    "mentor_name" : "Jagan",
    "mentees_count" : 18


    "_id" : ObjectId("65ff1600d27205534761cb5a"),
    "mentor_id" : 4,
    "mentor_name" : "Sangeetha",
    "mentees_count" : 18


    "_id" : ObjectId("65ff1600d27205534761cb5b"),
    "mentor_id" : 5,
    "mentor_name" : "Swetha",
    "mentees_count" : 16
```

## 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: {
      attend: false
    }
  },
  {
    $lookup: {
      from: "task",
      localField: "user_id",
      foreignField: "user_id",
      as: "user_tasks"
    }
  },
  {
    $match: {
      "user_tasks.deadline": { $gte: ISODate('2020-10-15'), $lte: ISODate('2020-10-31') },
      "user_tasks.submitted": false
    }
  },
  {
    $lookup: {
      from: "users",
      localField: "user_id",
```

```
        foreignField: "user_id",

        as: "user_details"

      }

    },

    {

      $project: {

        _id: 0,

        user_id: "$user_id",

        user_name: "$user_details.user_name"

      }

    }

  ])
```

```
> db.attendance.aggregate([
...     {
...         $match: {
...           attend: false
...         }
...     },
...     {
...         $lookup: {
...           from: "task",
...           localField: "user_id",
...           foreignField: "user_id",
...           as: "user_tasks"
...         }
...     },
...     {
...         $match: {
...           "user_tasks.deadline": { $gte: ISODate('2020-10-15'), $lte: ISODate('2020-10-31') },
...           "user_tasks.submitted": false
...         }
...     },
...     {
...         $lookup: {
...           from: "users",
...           localField: "user_id",
...           foreignField: "user_id",
...           as: "user_details"
...         }
...     },
...     {
...         $project: {
...           _id: 0,
...           user_id: "$user_id",
...           user_name: "$user_details.user_name"
...         }
...     }
...     ])
{ "user_id" : 2, "user_name" : [ "john" ] }
{ "user_id" : 3, "user_name" : [ "max" ] }
>
```