Zen class model:

Database: zen class

1)Collection\_name:Users

Document \_schema :

{

\_id:object(“”),

Name:””,(string),

Number:””(string),

Email:””(string),

Password:””(string),

Tasks:[

{

Task\_id:””,

Task name:””,

Submission\_date:””

}

]

}

2)Collection\_name:codekatta

Document\_schema

{

Student\_id:””,(string),

Student\_name:””(string),

Total\_Problems\_Solved:””,

Category:{

Category\_name:””(string),

Problem\_solved:””(int)

}

}

3)collection\_name: Attendance

Document\_schema

{

Attendance\_id:””,(string)

Date:””(date)

Count:””(int)

Total\_Student\_ids:[](array)

Present\_student\_names:[]

Absent\_student\_names:[]

}

4)collection\_name: topics

Document\_schema

{

topic\_id:””,(string)

topic\_content:””,

topic\_date:date()

}

5)collection\_name:tasks

Document\_schema

{

Task\_name:””,(string)

Task\_id:””,(string)

Task\_date:””.

Task\_mark:[

{

Student\_id:””,

Mark:””

}]

}

6)collection\_name:company\_drives

Document\_schema

{

Company\_name:””,(string),

No\_of\_students\_attended:””(int),

Drive\_date:date();

Name\_of\_the\_students:[]

}

7)collection\_name:mentors

Document\_schema:{

Name:””,(string),

Email:””(string),

Mentee\_count:””(int)

}

Questions:

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

Solution:

1)db.topics.find({$and:[{topic\_date:{$gte: ISODate("2020-10-1 00:00:00.000Z")}},{topic\_date:{$lt: ISODate("2020-11-1 00:00:00.000Z")}}]},{topic\_name:1}).

2) db.tasks.find({$and:[{task\_date:{$gte: ISODate("2020-10-1 00:00:00.000Z")}},{topic\_date:{$lt: ISODate("2020-11-1 00:00:00.000Z")}}]},{task\_name:1}).

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

2020

Solution:

Db.company\_drives.find({$and:[{drive\_date:{$gte: ISODate("2020-10-15 00:00:00.000Z")}} , {drive\_date:{$lt: ISODate("2020-11-1 00:00:00.000Z")}} ] })

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

Solution:db.company\_drives.find().forEach(function(e){

print(“company name :”+e.Company\_name)

print(“students\_appeared:”+e.Students\_appeared)

})

4) Find the number of problems solved by the user in codekata

Solution:

Db.codekatta.find().forEach(function(e){

Print(“Student\_name:”+e.Student\_Name)

Print(“problems\_solved:”+e.Total\_Problems\_Solved)

})

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

Solution:

Db.mentors.find({mantee\_count:{$gt:15}})

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

Solution:attendance report

1)db.attendance.find({$and:[{$gte: ISODate("2020-10-15 00:00:00.000Z")},{$lt: ISODate("2020-11-1” 00:00:00.000Z")} ]}).toArray().forEach(function(e){

Print(“date:”+e.date)

Print(“Students absent:”+e.Students\_Absent\_Name)

})

Solution:task report

1)db.users.find().forEach(function(e){

Print(e.name + “tasks not submitted between 15 oct-2020 and 31-oct-2020 ”)

e.Tasks.forEach(function(e){

if(e.Submisson\_date< ISODate("2020-10-15” 00:00:00.000Z") || e.submission\_date> ISODate("2020-11-1” 00:00:00.000Z")){

print(e.task\_name)

}

})

})