**Design database for Zen class programme**

users

codekata

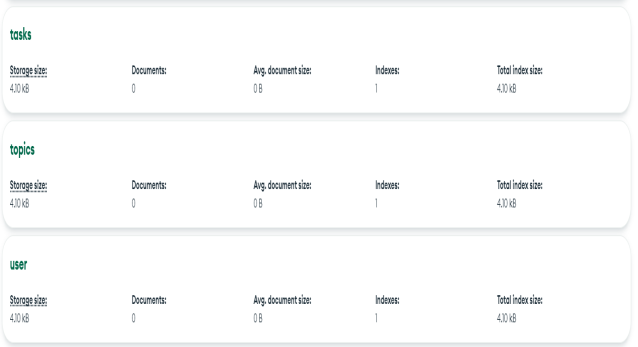
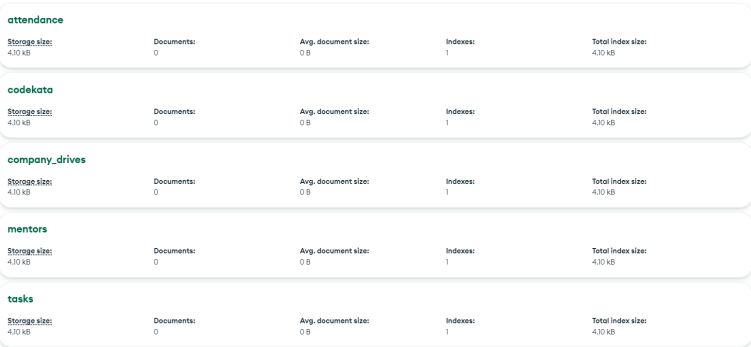
attendance

topics

tasks

company\_drives

mentors



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

Query:

db.tasks.aggregate([

{

$lookup: {

from: "topics",

localField: "top\_id",

foreignField: "\_id",

as: "task\_topics"

}

},

{

$unwind: "$task\_topics"

},

{ $project: {

topic\_name:"$task\_topics.name",

topic\_date:"$task\_topics.date",

task\_description:1,

date:1,

submitted:1 }

}]);

Output:

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

Query: db.company\_drives.aggregate([

{

$match: {date:{$gte: ISODate("2020-10-15"),$lte: ISODate("2020-10-31")}}

}

]);

Output:



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

Query: db.company\_drives.aggregate([

{

$lookup:{

from:"user",

localField:"\_id",

foreignField:"drive\_id",

as:"placement\_details"

}},

{

$unwind: "$placement\_details"

},

{

$match: {

"placement\_details.drive\_status": "attended"

}

},

{

$project: {

\_id: 0,

drive\_details: 1,

user\_name: "$placement\_details.name",

user\_email: "$placement\_details.email",

placement\_status: "$placement\_details.drive\_status"

}

}

]);



1. Find the number of problems solved by the user in codekata

Query: db.codekata.aggregate([

{

$lookup: {

from: "user",

localField: "user\_id",

foreignField: "\_id",

as: "codekata\_solved"

}

},

{

$unwind: "$codekata\_solved"

},

{

$group: {

\_id: "$codekata\_solved.\_id",

user\_name: { $first: "$codekata\_solved.name" },

user\_email: { $first: "$codekata\_solved.email" },

solved: { $sum: 1 }

}

},

{

$project: {

\_id: 0,

user\_name: 1,

user\_email: 1,

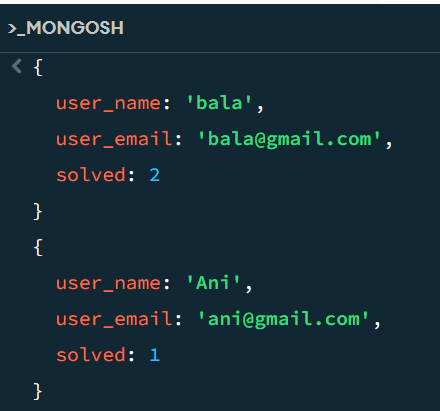
solved: 1

}

}

]);

Output:



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

Query:

db.mentors.aggregate([

{

$match: {mentees:{$gte:15}}

}

]);

Output:



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

Query:

db.user.aggregate([

{

$lookup: {

from: "attendance",

localField: "\_id",

foreignField: "user\_id",

as: "atten\_details"

}

},

{

$lookup: {

from: "tasks",

localField: "\_id",

foreignField: "user\_id",

as: "task\_details"

}

},

{ $unwind: "$atten\_details" },

{ $unwind: "$task\_details" },

{

$match: {

$and: [

{ "task\_details.date": { $gte: ISODate("2020-10-15"), $lte: ISODate("2020-10-31") } },

{ "task\_details.submitted": false },

{ "atten\_details.status": "absent" }

]

}

},

{

$group: {

\_id: null,

user\_count: { $sum: 1 }

}

},

{

$project: {

\_id: 0, user\_count: 1,

task\_submitted: { $literal: false },

status: { $literal: "absent" }

}

}

]);

