//creating a new database zenClassDB

use zenClassDB

//creating a new users collection and insert data

db.users.insertMany([

{

id: 1,

name: "Madhumidha.A",

contact: { email: "madhu@gmail.com", mobile: "8947561230" },

role: "student",

batch: "B30WD\_Tamil",

},

{

id: 2,

name: "Boopalan.M",

contact: { email: "boo@gmail.com", mobile: "8947561231" },

role: "student",

batch: "B30WD\_Tamil",

},

{

id: 3,

name: "Praneeta.B",

contact: { email: "praneeta@gmail.com", mobile: "8989758120" },

role: "student",

batch: "B31WD\_Tamil",

},

{

id: 4,

name: "Mugundan.B",

contact: { email: "mugund@gmail.com", mobile: "8956612302" },

role: "student",

batch: "B31WD\_Tamil",

},

{

id: 5,

name: "Saimohan",

contact: { email: "sai@gmail.com", mobile: "8947561230" },

role: "mentor",

},

{

id: 5,

name: "Ragav Kumar",

contact: { email: "ragavk@gmail.com", mobile: "8947561230" },

role: "mentor",

}])

//creating a new codekata collection and insert data

db.codekata.insertMany([

{

userid:1,

codekata: [

{

concept: "input/Output",

no\_of\_solved: 10,

},

{

concept: "Absoulte Beginner",

no\_of\_solved: 29,

}],

},

{

userid:2,

codekata: [

{

concept: "input/Output",

no\_of\_solved: 10,

},

{

concept: "Absoulte Beginner",

no\_of\_solved: 29,

}],

},

{

userid:3,

codekata: [

{

concept: "input/Output",

no\_of\_solved: 10,

},

{

concept: "Absoulte Beginner",

no\_of\_solved: 25,

}],

},

{

userid:4,

codekata: [

{

concept: "input/Output",

no\_of\_solved: 10,

},

{

concept: "Absoulte Beginner",

no\_of\_solved: 29,

}],

}

])

//creating a new topics collection and insert data

db.topics.insertMany([

{

id: 1,

topic: "Javascript - Day -1 : Introduction to Browser & web",

tdate: ISODate("2021-10-15"),

contents: [

"Introduction to web",

"Browser Wars DOM tree, CSSOM tree.",

"Browser internals - HTML parser , CSS parser , JS engine",

"Layout engine or rendering engine JavaScript",

"V8 engine internals",

"IP – MAC address – Ports & Evolution of HTTP",

],

preRead: ["No preread available"],

tasks: [

"https://docs.google.com/document/d/1QznT1zM4mI6dG0TODx5Xjs1GquMoSHO3xZ1USDnVM-w/edit?usp=sharing",

],

},

{

id: 2,

topic: "Javascript - Day -2 : Request & Response cycle",

tdate: ISODate("2021-10-18"),

contents: [

"HTTP Methods",

"How the Server looks at the URL",

"Request & Response cycle",

"HTML Browser view - Debugger, Inspect, Responsive View",

"Browser js vs Node js",

"Data types",

],

preRead: ["No preread available"],

tasks: [

"https://docs.google.com/document/d/1v0lcqV9v0QAZfjEIKKc5eRDC\_mEJkl4f2cH1QuiXi3c/edit?usp=sharing",

],

},

{

id: 3,

topic: "Javascript - Day -3 : JS array & objects",

tdate: ISODate("2021-10-19"),

contents: [

"Copy by value and Copy by reference",

"Window & document object",

"Array and JSON iteration",

],

preRead: ["No preread available"],

tasks: [

"https://docs.google.com/document/d/1EIpyPItk5xMOQluX5m\_cPD4KTI9AnkyqDlO26pbG4a8/edit?usp=sharing",

],

},

{

id: 4,

topic: "Javascript - Day -4 : What is XMLHTTP Request? & scope",

tdate: ISODate("2021-10-20"),

contents: [

"XMLHTTP Request",

"Hoisting & scope",

"Introduction to functions",

],

preRead: ["No preread available"],

tasks: [

"https://docs.google.com/document/d/1cNDeT0CKJwqXYDeSIlmJVhx\_t4AFvR\_0Ypa1cp2rhJk/edit?usp=sharing",

],

},

{

id: 5,

topic: "Javascript - Day -5 : Functions",

tdate: ISODate("2021-10-21"),

contents: ["Function & return keyword", "types of function"],

preRead: ["No preread available"],

tasks: [

"https://docs.google.com/document/d/1TPk3wqxDFi64WV-6hJOkYEzBaAYxNvZ4T9hRJGgvFjw/edit?usp=sharing",

],

},

{

id: 6,

topic: "Javascript - Day -6 : Functions recap",

tdate: ISODate("2021-10-22"),

contents: ["Anonymous", "API", "Arrow functions"],

preRead: ["No preread available"],

tasks: [

"https://docs.google.com/document/d/1ILi6J1s3tSv8xnXImIuWr5jD652BXNHNLNa0ErmRsRk/edit?usp=sharing",

],

},

{

id: 7,

topic: "Javascript - Day -7 : ES5 vs ES6",

tdate: ISODate("2021-10-25"),

contents: [

"let const",

"spread & rest operator",

"array & object destructure",

"Template literals",

"class",

"Arrow functions",

],

preRead: [

"http://es6-features.org/",

"https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Operators/Destructuring\_assignment",

],

},

{

id: 8,

topic: "Javascript - Day -8 : OOP,MRF",

tdate: ISODate("2021-10-26"),

contents: ["MRF Methods"],

preRead: ["No preread available"],

tasks: [

"https://docs.google.com/document/d/12wAX28odaaCy4IWdlX3QQ3LOrBB3UXLsMD99X1Ve1Uc/edit?usp=sharing",

],

},

{

id: 9,

topic: "Javascript - Day -9 : MRF - array method",

tdate: ISODate("2021-10-27"),

contents: ["Map, Reduce, Filter", "continuation of map, reduce,filter"],

preRead: ["No preread available"],

tasks: [

"https://docs.google.com/document/d/1iza9j-P6zsN0gZ9ZVuNH0lMxdUeuAYfaGMPvyWL\_IcY/edit?usp=sharing",

],

},

{

id: 10,

topic: "Javascript - Day -10 : Complete Recap",

tdate: ISODate("2021-10-28"),

contents: ["Recap Session"],

preRead: ["No preread available"],

},

{

id: 11,

topic: "HTML- Day -1 : HTML",

tdate: ISODate("2021-10-29"),

contents: [

"div vs section vs article",

"div vs span = inline vs block elements",

"HTML Forms",

"Input elements and attributes",

"Form submit",

],

preRead: [

"https://developer.mozilla.org/en-US/docs/Web/HTML",

"https://www.w3schools.com/html/",

"https://html.spec.whatwg.org/multipage/",

],

tasks: [

"Practice task https://github.com/rvsp/HTML-CSS/blob/master/Mini-tasks/001-HTML.md",

],

},

{

id: 12,

topic: "HTML & CSS- Day -1 : HTML recap CSS",

tdate: ISODate("2021-11-01"),

contents: [

"What is css?",

"ways to use css",

"property & value",

"class vs id",

"use of important",

"display property: inline, block",

],

preRead: [

"https://www.w3schools.com/html/default.asp",

"https://github.com/rvsp/html-CSS/",

],

},

]);

//creating a new tasks collection and insert data

db.tasks.insertMany([

{

userid:1,

topicid:1,

task\_link:["https:/github/xxx/task1"],

submit\_dt: ISODate("2021-10-16"),

},

{

userid:2,

topicid:1,

task\_link:["https:/github/yyy/task1"],

submit\_dt: ISODate("2021-10-17"),

},

{

userid:3,

topicid:1,

task\_link:["https:/github/zzz/task1"],

submit\_dt: ISODate("2021-10-18"),

},

{

userid:4,

topicid:1,

task\_link:["https:/github/aaa/task1"],

submit\_dt: ISODate("2021-10-18"),

},

{

userid:3,

topicid:1,

task\_link:["https:/github/zzz/task1"],

submit\_dt: ISODate("2021-10-19"),

},

{

userid:4,

topicid:1,

task\_link:["https:/github/aaa/task1"],

submit\_dt: ISODate("2021-10-19"),

}

])

//creating a new attendance collection and insert data

db.attendance.insertMany([

{ id:1,

userid:1,

topicid:1,

sessionFeedback:"ddfd",

sessionRating:5,

mentorRating:5,

mentorFeedback:"sss",

key:"cjj",

submit\_dt:ISODate("2021-10-18"),

},

{

id:2,

userid:2,

topicid:1,

sessionFeedback:"ddfd",

sessionRating:5,

mentorRating:5,

mentorFeedback:"sss",

key:"cjj",

submit\_dt:ISODate("2021-10-18")

},

{

id:3,

userid:3,

topicid:1,

sessionFeedback:"ddfd",

sessionRating:5,

mentorRating:4,

mentorFeedback:"sss",

key:"cjj",

submit\_dt:ISODate("2021-10-18")

},

{ id:4,

userid:1,

topicid:2,

sessionFeedback:"ddfd",

sessionRating:5,

mentorRating:5,

mentorFeedback:"sss",

key:"cjj",

submit\_dt:ISODate("2021-10-19")

},

{

id:5,

userid:3,

topicid:1,

sessionFeedback:"ddfd",

sessionRating:5,

mentorRating:5,

mentorFeedback:"sss",

key:"cjj",

submit\_dt:ISODate("2021-10-19")

},

{

id:6,

userid:4,

topicid:1,

sessionFeedback:"ddfd",

sessionRating:5,

mentorRating:4,

mentorFeedback:"sss",

key:"cjj",

submit\_dt:ISODate("2021-10-19")

},

])

//creating a new mentors collection and insert data

db.mentors.insertMany([

{

id:1,

mentor\_id:5,

mentees:20,

batch:"B30WD\_Tamil",

},

{

id:2,

mentor\_id:5,

mentees:13,

batch:"B31WD\_Tamil",

},

{

id:3,

mentor\_id:6,

mentees:10,

batch:"B32WD\_Tamil",

},

{

id:4,

mentor\_id:6,

mentees:16,

batch:"B32WD\_Tamil",

}])

//creating a new companydrives collection and insert data

db.companydrives.insertMany([

{

drive\_id:1,

drive\_date:ISODate("2021-10-15");

company:"TCS",

appeared:[{userid:1,

status:"A"},

{userid:2,

status:"A"},

]

},

{

drive\_date:ISODate("2021-10-18"),

company:"HCL",

appeared:[{userid:3,

status:"A"},

{userid:5,

status:"A"},

]

},

{

drive\_date:ISODate("2021-11-01"),

company:"Amazon",

appeared:[{userid:1,

status:"A"},

{userid:5,

status:"A"},

]

}

])

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

db.topics.aggregate([

{$project:{\_id:0,topic:1,tasks:1,tdate:1,month:{$month:"$tdate"}}},

{$match:{month:{$eq:10}}}

]).pretty()

Output:

{

"topic" : "Javascript - Day -7 : ES5 vs ES6",

"tdate" : ISODate("2021-10-25T00:00:00Z"),

"month" : 10

}

{

"topic" : "Javascript - Day -8 : OOP,MRF",

"tdate" : ISODate("2021-10-26T00:00:00Z"),

"tasks" : [

"https://docs.google.com/document/d/12wAX28odaaCy4IWdlX3QQ3LOrBB3UXLsMD99X1Ve1Uc/edit?usp=sharing"

],

"month" : 10

}

{

"topic" : "Javascript - Day -9 : MRF - array method",

"tdate" : ISODate("2021-10-27T00:00:00Z"),

"tasks" : [

"https://docs.google.com/document/d/1iza9j-P6zsN0gZ9ZVuNH0lMxdUeuAYfaGMPvyWL\_IcY/edit?usp=sharing"

],

"month" : 10

}

{

"topic" : "Javascript - Day -10 : Complete Recap",

"tdate" : ISODate("2021-10-28T00:00:00Z"),

"month" : 10

}

{

"topic" : "HTML- Day -1 : HTML",

"tdate" : ISODate("2021-10-29T00:00:00Z"),

"tasks" : [

"Practice task https://github.com/rvsp/HTML-CSS/blob/master/Mini-tasks/001-HTML.md"

],

"month" : 10

}

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

db.companydrives.find({drive\_date:{ $gte:ISODate("2021-10-15"), $lte:ISODate("2021-10-31") }},{drive\_date:1,company:1,\_id:0}).pretty()

Output

{ "drive\_date" : ISODate("2021-10-15T00:00:00Z"), "company" : "TCS" }

{ "drive\_date" : ISODate("2021-10-18T00:00:00Z"), "company" : "HCL" }

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

db.companydrives.aggregate([{

$lookup:{

from:"users",

localField:"appeared.userid",

foreignField:"id",

as:"appearedInfo"

}

},{$project:{drive\_date:1,\_id:0,company:1,"appearedInfo.name":1,"appearedInfo.contact":1}}]).pretty()

Output:

{

"drive\_date" : ISODate("2021-10-15T00:00:00Z"),

"company" : "TCS",

"appearedInfo" : [

{

"name" : "Madhumidha.A",

"contact" : {

"email" : "madhu@gmail.com",

"mobile" : "8947561230"

}

},

{

"name" : "Boopalan.M",

"contact" : {

"email" : "boo@gmail.com",

"mobile" : "8947561230"

}

}

]

}

{

"drive\_date" : ISODate("2021-10-18T00:00:00Z"),

"company" : "HCL",

"appearedInfo" : [

{

"name" : "Praneeta.B",

"contact" : {

"email" : "praneeta@gmail.com",

"mobile" : "8947561230"

}

},

{

"name" : "Mugundan.B",

"contact" : {

"email" : "mugund@gmail.com",

"mobile" : "8947561230"

}

}

]

}

{

"drive\_date" : ISODate("2021-11-01T00:00:00Z"),

"company" : "Amazon",

"appearedInfo" : [

{

"name" : "Boopalan.M",

"contact" : {

"email" : "boo@gmail.com",

"mobile" : "8947561230"

}

},

{

"name" : "Praneeta.B",

"contact" : {

"email" : "praneeta@gmail.com",

"mobile" : "8947561230"

}

}

]

}

Find the number of problems solved by the user in codekata

db.codekata.aggregate([{

$lookup: {

from: "users",

localField: "userid",

foreignField: "id",

as: "userinfo"}

},

{$project:{

\_id:0,"userinfo.name":1,codekata:1,

"NoOfSolved": { "$sum": "$codekata.no\_of\_solved" }

}}]).pretty()

Output:

{

"codekata" : [

{

"concept" : "input/Output",

"no\_of\_solved" : 10

},

{

"concept" : "Absoulte Beginner",

"no\_of\_solved" : 29

}

],

"userinfo" : [

{

"name" : "Madhumidha.A"

}

],

"NoOfSolved" : 39

}

{

"codekata" : [

{

"concept" : "input/Output",

"no\_of\_solved" : 10

},

{

"concept" : "Absoulte Beginner",

"no\_of\_solved" : 29

}

],

"userinfo" : [

{

"name" : "Boopalan.M"

}

],

"NoOfSolved" : 39

}

{

"codekata" : [

{

"concept" : "input/Output",

"no\_of\_solved" : 10

},

{

"concept" : "Absoulte Beginner",

"no\_of\_solved" : 25

}

],

"userinfo" : [

{

"name" : "Praneeta.B"

}

],

"NoOfSolved" : 35

}

{

"codekata" : [

{

"concept" : "input/Output",

"no\_of\_solved" : 10

},

{

"concept" : "Absoulte Beginner",

"no\_of\_solved" : 29

}

],

"userinfo" : [

{

"name" : "Mugundan.B"

}

],

"NoOfSolved" : 39

}

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

db.mentors.aggregate([{$lookup:{ from:"users", localField:"mentor\_id", foreignField:"id", as:"userInfo" }}, {$project:{\_id:0,"Mentor":"$userInfo.name",batch:1,mentees:1}}, {$match:{mentees:{$gt:15}}}])

output

{ "mentees" : 20, "batch" : "B30WD\_Tamil", "Mentor" : [ "Sai Mohan" ] }

{ "mentees" : 16, "batch" : "B32WD\_Tamil", "Mentor" : [ "Ragav Kumar" ] }

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

db.attendance.aggregate([ {

$lookup: {

from: "users",

localField: "userid",

foreignField: "id",

as: "userinfo"}

},

{$match: {

submit\_dt: {

$gte: ISODate('2021-10-18'),

$lte: ISODate('2021-10-19')

}

}

},{$group: {

\_id: "$userinfo.name",

count: { $sum: 1 }

}}])

Output:

{ "\_id" : [ "Madhumidha.A" ], "count" : 2 }

{ "\_id" : [ "Praneeta.B" ], "count" : 2 }

{ "\_id" : [ "Mugundan.B" ], "count" : 1 }

{ "\_id" : [ "Boopalan.M" ], "count" : 1 }

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db.tasks.aggregate([

{

$lookup: {

from: "users",

localField: "userid",

foreignField: "id",

as: "userinfo"}

},

{$match: {

submit\_dt: {

$gte: ISODate('2021-10-16'),

$lte: ISODate('2021-10-19')

}

}

},{$group: {

\_id: "$userinfo.name",

count: { $sum: 1 }

}}])

Output:

{ "\_id" : [ "Madhumidha.A" ], "count" : 1 }

{ "\_id" : [ "Praneeta.B" ], "count" : 2 }

{ "\_id" : [ "Mugundan.B" ], "count" : 2 }

{ "\_id" : [ "Boopalan.M" ], "count" : 1 }

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