Mongo DB Tasks - 2:

Design database for Zen class programme

Users

Codekata

Attendance

Topics

Tasks

Company Drives

Mentors

Databases:

|  |  |
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| Topics Database: | Company Drives Database: |
| [  {  id: 100,  topic: "HTML",  task: "Newspaper",  discussed\_on: ISODate("2021-09-01T00:00:00.000Z")  },  {  id: 101,  topic: "CSS",  task: "Web resume",  discussed\_on: ISODate("2021-09-05T00:00:00.000Z")  },  {  id: 102,  topic: "Bootstrap",  task: "Fruits banner design",  discussed\_on: ISODate("2021-09-10T00:00:00.000Z")  },  {  id: 103,  topic: "Javascript Basics",  discussed\_on: ISODate("2021-09-15T00:00:00.000Z")  },  {  id: 104,  topic: "Arrays and objects in Js",  task: "Array functions",  discussed\_on: ISODate("2021-09-20T00:00:00.000Z")  },  {  id: 105,  topic: "Split and Splice in Js",  task: "Split, splice and slice using arrays",  discussed\_on: ISODate("2021-10-02T00:00:00.000Z")  },  {  id: 106,  topic: "If cases in Js",  task: "Voting eligibility checking",  discussed\_on: ISODate("2021-10-06T00:00:00.000Z")  },  {  id: 107,  topic: "For loop in Js",  task: "Pattern program using for loop",  discussed\_on: ISODate("2021-10-12T00:00:00.000Z")  },  {  id: 108,  topic: "Datatypes in Js",  task: "Datatypes practice",  discussed\_on: ISODate("2021-10-18T00:00:00.000Z")  },  {  id: 109,  topic: "MRF functions in Js",  task: "MRF practice",  discussed\_on: ISODate("2021-10-24T00:00:00.000Z")  },  {  id: 110,  topic: "DOM",  task: "DOM methods learning",  discussed\_on: ISODate("2021-11-03T00:00:00.000Z")  },  {  id: 111,  topic: "Asynchronous Methods in DOM",  task: "Settimeout assignment",  discussed\_on: ISODate("2021-11-08T00:00:00.000Z")  },  {  id: 112,  topic: "Promises",  task: "Promise learning",  discussed\_on: ISODate("2021-11-13T00:00:00.000Z")  },  {  id: 113,  topic: "Fetch, Async, Await",  task: "Fetching using api",  discussed\_on: ISODate("2021-11-19T00:00:00.000Z")  },  {  id: 114,  topic: "CRUD Operations",  task: "CRUD using api",  discussed\_on: ISODate("2021-11-25T00:00:00.000Z")  }  ] | [  {  id: 100,  company\_name: "Zoho Corp",  students\_attended: 36,  drive\_on: ISODate("2021-10-01T00:00:00.000Z")  },  {  id: 101,  company\_name: "Freshworks",  students\_attended: 30,  drive\_on: ISODate("2021-10-03T00:00:00.000Z")  },  {  id: 102,  company\_name: "TCS",  students\_attended: 40,  drive\_on: ISODate("2021-10-07T00:00:00.000Z")  },  {  id: 103,  company\_name: "CTS",  students\_attended: 42,  drive\_on: ISODate("2021-10-11T00:00:00.000Z")  },  {  id: 104,  company\_name: "Tech Mahindra",  students\_attended: 45,  drive\_on: ISODate("2021-10-13T00:00:00.000Z")  },  {  id: 105,  company\_name: "Accenture",  students\_attended: 38,  drive\_on: ISODate("2021-10-16T00:00:00.000Z")  },  {  id: 106,  company\_name: "Wells Fargo",  students\_attended: 27,  drive\_on: ISODate("2021-10-18T00:00:00.000Z")  },  {  id: 107,  company\_name: "IBM",  students\_attended: 30,  drive\_on: ISODate("2021-10-20T00:00:00.000Z")  },  {  id: 108,  company\_name: "HCL",  students\_attended: 40,  drive\_on: ISODate("2021-10-21T00:00:00.000Z")  },  {  id: 109,  company\_name: "Wipro",  students\_attended: 38,  drive\_on: ISODate("2021-10-23T00:00:00.000Z")  },  {  id: 110,  company\_name: "Infosys",  students\_attended: 43,  drive\_on: ISODate("2021-10-25T00:00:00.000Z")  },  {  id: 111,  company\_name: "Nokia",  students\_attended: 50,  drive\_on: ISODate("2021-10-26T00:00:00.000Z")  },  {  id: 112,  company\_name: "Byju's",  students\_attended: 45,  drive\_on: ISODate("2021-10-29T00:00:00.000Z")  },  {  id: 113,  company\_name: "Amazon",  students\_attended: 25,  drive\_on: ISODate("2021-10-30T00:00:00.000Z")  },  {  id: 114,  company\_name: "Microsoft",  students\_attended: 37,  drive\_on: ISODate("2021-11-01T00:00:00.000Z")  }  ] |

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| Users Database: | Mentors Database: |
| [  {  id: 100,  user\_name: "Vijay",  batch: "B30WD",  codekata\_used: "yes",  codekata: 79,  task\_submitted: "Submitted",  absent\_date: ISODate("2021-10-01T00:00:00.000Z")  },  {  id: 101,  user\_name: "Arun",  batch: "B31WD",  codekata\_used: "yes",  codekata: 58,  task\_submitted: "Submitted",  absent\_date: ISODate("2021-10-03T00:00:00.000Z")  },  {  id: 102,  user\_name: "John",  batch: "B30WE",  codekata\_used: "yes",  codekata: 85,  task\_submitted: "Not Submitted",  absent\_date: ISODate("2021-10-15T00:00:00.000Z")  },  {  id: 103,  user\_name: "Surya",  batch: "B32WE",  codekata\_used: "yes",  codekata: 75,  task\_submitted: "Not Submitted",  absent\_date: ISODate("2021-10-18T00:00:00.000Z")  },  {  id: 104,  user\_name: "Vikram",  batch: "B30WD",  codekata\_used: "yes",  codekata: 92,  task\_submitted: "Submitted",  absent\_date: ISODate("2021-10-10T00:00:00.000Z")  },  {  id: 105,  user\_name: "Francis",  batch: "B30WE",  codekata\_used: "yes",  codekata: 67,  task\_submitted: "Not Submitted",  absent\_date: ISODate("2021-10-21T00:00:00.000Z")  },  {  id: 106,  user\_name: "Akhil",  batch: "B28WE",  codekata\_used: "yes",  codekata: 82,  task\_submitted: "Not Submitted",  absent\_date: ISODate("2021-10-19T00:00:00.000Z")  },  {  id: 107,  user\_name: "Francis",  batch: "B30WD",  codekata\_used: "yes",  codekata: 90,  task\_submitted: "Submitted",  absent\_date: ISODate("2021-10-14T00:00:00.000Z")  },  {  id: 108,  user\_name: "Jennifer",  batch: "B29WD",  codekata\_used: "yes",  codekata: 80,  task\_submitted: "Not Submitted",  absent\_date: ISODate("2021-10-25T00:00:00.000Z")  },  {  id: 109,  user\_name: "Mary",  batch: "B30WE",  codekata\_used: "yes",  codekata: 85,  task\_submitted: "Not Submitted",  absent\_date: ISODate("2021-10-26T00:00:00.000Z")  }  ] | [  {  id: 100,  "mentor\_name": "John Doe",  "mentoring\_batch": "B29WD",  "no\_of\_mentees": 10  },  {  id: 101,  "mentor\_name": "Vijay",  "mentoring\_batch": "B29WE",  "no\_of\_mentees": 20  },  {  id: 102,  "mentor\_name": "Samuel",  "mentoring\_batch": "B30WD",  "no\_of\_mentees": 15  },  {  id: 103,  "mentor\_name": "Arun",  "mentoring\_batch": "B30WE",  "no\_of\_mentees": 13  },  {  id: 104,  "mentor\_name": "Ragav Kumar",  "mentoring\_batch": "B31WD",  "no\_of\_mentees": 17  },  {  id: 105,  "mentor\_name": "Jeeva",  "mentoring\_batch": "B31WE",  "no\_of\_mentees": 24  },  {  id: 106,  "mentor\_name": "Divya",  "mentoring\_batch": "B32WD",  "no\_of\_mentees": 28  },  {  id: 107,  "mentor\_name": "Richard",  "mentoring\_batch": "B32WE",  "no\_of\_mentees": 14  },  {  id: 108,  "mentor\_name": "Johnson",  "mentoring\_batch": "B33WD",  "no\_of\_mentees": 20  },  {  id: 109,  "mentor\_name": "Jennifer",  "mentoring\_batch": "B33WE",  "no\_of\_mentees": 11  }  ] |

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

Sol: db.collection.find({

discussed\_on: {

$gte: ISODate("2021-10-01T00:00:00.000Z"),

$lt: ISODate("2021-10-31T00:00:00.000Z")

}

},

{

topic: 1,

task: 1,

discussed\_on: 1,

\_id: 0

})

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

Sol: db.collection.find({

drive\_on: {

$gte: ISODate("2021-10-15T00:00:00.000Z"),

$lt: ISODate("2021-10-31T00:00:00.000Z")

}

},

{

company\_name: 1,

drive\_on: 1,

\_id: 0

})

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

Sol: db.collection.find({},

{

company\_name: 1,

students\_attended: 1,

\_id: 0

})

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

Sol: db.collection.find({},

{

user\_name: 1,

codekata: 1,

\_id: 0

})

Total No. of codekata:

db.collection.aggregate([

{

$group: {

\_id: "",

"TotalCount": {

$sum: "$codekata"

}

}

}

])

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

Sol: db.collection.find({

no\_of\_mentees: {

$gt: 15

}

})

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

Sol: db.collection.find({

absent\_date: {

$gte: ISODate("2021-10-15T00:00:00.000Z"),

$lt: ISODate("2021-10-31T00:00:00.000Z")

}

},

{

user\_name: 1,

task\_submitted: 1,

id: 1,

\_id: 0

})