# **Polling System API**

TIME: 5 hours

Let’s make a polling system, only API based. [Good Enough Completion Time: 3 hours + 1 hour for finalizing things]

* Write the server application in Node.js and a Database of your choice Only the API needs to be designed
* Feel free to use any libraries (you should be very clear on how it works conceptually)

**Extra Points:**

* Well commented code
* Readme on how to setup the project on local system
* Scaleable folder structure (separate models, controllers and routes)

**Task**

* You need to create an API where anyone can create questions with options and also add votes to it
* Authentication/User identity is not needed, this is going to be a completely open application, however if you want to and think there’s extra time, you can create authentication
* Features
  + Create a question (you can add as many questions as you want)
  + Add options to a question
  + Add a vote to an option of question
  + Delete a question → (optional: A question can’t be deleted if one of it’s options has votes)
  + Delete an option → (optional: An option can’t be deleted if it has even one vote given to it)
  + View a question with it’s options and all the votes given to it
* Required Routes (Remember, in a real test, you won’t be given routes mostly)
  + /questions/create (To create a question)
  + /questions/:id/options/create (To add options to a specific question)
  + /questions/:id/delete (To delete a question)
  + /options/:id/delete (To delete an option)
  + /options/:id/add\_vote (To increment the count of votes)
  + /questions/:id (To view a question and it’s options)
    - The API will look like this (**Pay close attention to the link\_to\_vote, because that’s tricky part, you’ll need to insert it dynamically**):

|  |
| --- |
| {  id: 1,  title: “Who is your favorite from the Ninjas Mentors”,  options: [  {  id: 1,  text: “Aakash Tyagi”,  votes: 100,  link\_to\_vote: “[http://localhost:8000/options/1/add\_vote](http://localhost:8000/options/:id/add_vote)”,  },  {  id: 2,  text: “Parikh Jain”,  votes: 101,  link\_to\_vote: “[http://localhost:8000/options/2/add\_vote](http://localhost:8000/options/:id/add_vote)”,  },  {  id: 3,  text: “Ankush Singla”,  votes: 102,  link\_to\_vote: “[http://localhost:8000/options/3/add\_vote](http://localhost:8000/options/:id/add_vote)”,  },  {  id: 4,  text: “Nidhi”,  votes: 110,  link\_to\_vote: “[http://localhost:8000/options/3/add\_vote](http://localhost:8000/options/:id/add_vote)”,  }  ] } |
|  |

* Decide the schemas and fields on your own, smartly

**Free Hints**

* **USE PEN AND PAPER TO CREATE SCHEMAS BEFORE WRITING CODE**
* WORK ON ONE API AT A TIME (in the order they are mentioned, DON’T THINK ABOUT THE COMPLETE APP TOGETHER

**To Submit:**

* Record a video (max 3 minutes) with the following details (**and upload it to drive/youtube with public access, VIDEO SHOULD BE ACCESSIBLE BY ANYONE**):
  + Explain through the folder structure (what is placed where and why)
  + Explain the running code using Postman
* Upload the project files on github.com
* SUBMISSIONS WITHOUT VIDEO WILL NOT BE EVALUATED