**Lab2 - Express server**

**Lab2 - HTTP server**

**1- Provide Server to List TODOs**

* Use a filesystem (Use the **stream** methods), same as Lab01.
* **Page One: Home page localhost:3000/** it’s what the users see when they first land on our website. It'll show our todos list that the user entered from yesterday (just Viewing). (don’t show the id)
* Both Lab01, Lab02 should use the same file.
* **Page Two: Astronomy page: localhost:3000/astronomy** Should display this [image](https://media.cnn.com/api/v1/images/stellar/prod/200505225212-04-fossils-and-climate-change-museum.jpg?q=x_0,y_0,h_1125,w_1999,c_fill/h_720,w_1280) along with a few lines of description.
* **Page Three: 404 page not found (just simple html)**
* Style your page, serve the css file separately, from disk.
* Use read streams.

**Bonus:**

* Add a new route to download this [image](https://media.cnn.com/api/v1/images/stellar/prod/200505225212-04-fossils-and-climate-change-museum.jpg?q=x_0,y_0,h_1125,w_1999,c_fill/h_720,w_1280). (trigger the download dialog) **localhost:3000/astronomy/download**

**Hint**: look-up for the correct header ;)

**Notes:**

* **Make sure to try the debugging environment**
* **Make sure that you enable restart on change using nodemon**
* **Make sure to split your logic into modules**
* Please make sure that you separate your logic in functions
* Make the names of your functions and variables are expressive of what they are
* Start by defining each functionality and the steps you should make to achieve it
* Please make sure not to pollute the global scope[refrain from using global variables]
* Before writing a function, ask yourself, is there a function in javascript that can do that, if not, write your own.

**Tips:**

* If you can’t do something, search, then ask for help, this is not an exam.
* Please please please, don’t copy someone else’s code.

**Useful Links:**

* [npm | build amazing things](https://www.npmjs.com/)
* Nodejs [Docs](https://nodejs.org/en/docs/)
* Fs module docs [fs](https://nodejs.org/dist/latest-v12.x/docs/api/fs.html) (you will need to use the sync version of the functions)[ends with the word Sync]
* HTTP module to make your http server
* Nodemon for restarting node
* [Headers - Web APIs](https://developer.mozilla.org/en-US/docs/Web/API/Headers)
* [Introduction to Node.js](https://nodejs.dev/)

Please send the labs to either, please write your name and lab01 in the title of the email, also the name of the folder and I’ll reply to each e-mail with the notes and comments.

OR email me the github link, make sure to ignore the node module folder  
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**Useful Readings:**

* [Build an HTTP Server](https://nodejs.dev/build-an-http-server)
* [An introduction to the npm package manager](https://nodejs.dev/an-introduction-to-the-npm-package-manager)
* [The V8 JavaScript Engine](https://nodejs.dev/the-v8-javascript-engine)
* [How the Web works - Learn web development](https://developer.mozilla.org/en-US/docs/Learn/Getting_started_with_the_web/How_the_Web_works)

**Must read before Day3:**

* [**REST API Best Practices – REST Endpoint Design Examples**](https://www.freecodecamp.org/news/rest-api-best-practices-rest-endpoint-design-examples/)