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Youtube Video Link:

https://www.youtube.com/watch?v=HxfEfFnAcpA&ab_channel=AbaseenAhmadzai

How to run: npm install so the correct dependencies will be present for the server to run. In the terminal run the database-initializer.js and then the server with node server.js and in the web browser go to the localhost:3000 and you should be at a login page.

RESTful design principles are crucial in every day web development, as organization plays a key role. The server implements various cases of RESTful design, seen with the different get and post handlers, and what each of them does to their respective pages. The use of HTTP status codes was prominent as it also allowed for error handling, and sending certain status codes when the information inputted was incorrect. For example, when the user enters a blank username or password for the login, it will be met with a “you shall not pass” and an “invalid” in the terminal, this was done with the response.status and response.send(400) which shows an error. Anytime the user inputs any kind of information, there is a post request sent from the client to the server, having a client and a server for multiple pages makes it resourceful and easy to distinguish the difference between these two. The client sends this to unique handlers in the server that receive and do whatever their respective action needs them to do. Besides the operations of the server itself, comments were added to help navigate through my code and make it easier to see where bugs would appear.

Memory and speed are always 2 very big concerns with any kind of web application in web development. The amount of space something takes can drastically effect the speed of how fast something runs. For my project, I feel scalability was a big issue seeing as I stored many things on the server as opposed to the database I created in the beginning for the artworks in the gallery.json. Doing this hinders the server a lot and makes it slower, obviously I don't notice it because this isn't that large of a server, but when web applications are grand with millions of users, having a database can come in handy a lot, putting less stress on the server and being able to have all the information you need from the database, at the palm of your hand. Because of this, latency (the request time) would most likely be longer since I don't use the database that much (not storing sessions for example in the database).

I decided to use a bootstrap for this assignment from

<https://getbootstrap.com/docs/5.1/getting-started/introduction/>

Which was a design decision as it ultimately made my assignment look much cleaner as well helped with some of the formatting for certain aspects like the forms and input boxes. I also added a donate page to mimic real kinds of server, servers like the ones those illegal sport streams use are always asking for it, so I wanted to make a donation page as well and in doing so needed a better design which I took inspiration from a youtube tutorial.

https://www.youtube.com/watch?v=01NiC8f9phQ&ab_channel=RaviWeb

PS: I had quite a sore throat in the video, please put up your volume if you can't hear (please don't delete any folders)