Reflections - Final project (CS132)

I learned a tremendous amount of new tools through the implementation of this project. From the original idea to the final "product," the journey was rich. In this project, I was able to see how everything I learned in this class played a crucial role. From choosing the right HTML5 tags to the right choice of CSS3 selectors and a good understanding of JavaScript, everything I learned was useful for this project.

Let me first talk about the issues I encountered while implementing my final full-stack webpage. At the early stage of the project, I was not able to imagine a suitable design for my product.HTML page. I had in mind the idea of a card containing the tutors' information, but I could not implement the exact HTML code, mainly because that webpage is dynamically populated with JavaScript code, so it was hard to write the code a priori. What was helpful was first the SET! homework. The HTML code of that homework gave me an initial idea, and then I figured that I could work with a sample tutor card, and once the CSS and HTML codes were adequate, it was then easier to use JavaScript to apply the style to every new card generated.

On the server side, handling errors was challenging for me. Mainly because I did not understand the differences between the try-catch method and the other method presented in the class. Eventually, the discussion with El via Discord was really helpful, and I now have a way better understanding of asynchronous functions and the fact that the server keeps running those functions in the background and the catch method is

meant to literally catch the errors. The difference between a 500 and 400 error was also a challenging concept. I was not sure when a server error is appropriate in the code as opposed to a client-server error. Attending the last lectures was really helpful for me, and I can say that I understand the difference between a 400 error (I have one example in my API where the client sends the wrong name for a category) versus a 500 error (for example, when the server cannot read the file comments.json).

The examples and case studies presented by El were really crucial for me. Those were my main source of inspiration throughout this project. The fact that they were simple enough so that one can build upon them and understand in detail what is happening behind the code. I really enjoyed learning from those case studies and slides.

I tried to implement all the required features for this project (those required for seniors and graduate students) but also had some time to go beyond what is needed. The review form has an additional feature where the user hovers over the stars, and the review stars would turn yellow as the user is actively choosing a rating for the tutor. That feature was fun to implement. However, not all features I wanted to implement were successful. In fact, I tried to implement a login feature where ideally each tutor has a separate webpage. The main issue I had to think about is a design issue: should I create a new page for each tutor or dynamically populate a fixed HTML page with the user's credentials? I figured that adding this feature would require more programming, and since there is a deadline to submit the project, I decided to use JS/DOM manipulation to hide/display each tutor's profile.

There are many features I want to add to this project. First, I can always think of better CSS code to get more visual effects. Given more time, I would also add the login feature and, more importantly, a new page called becomeAtutor.HTML. This page will use a POST method to add new tutors to the server each time a new tutor 'signs up.' I think I have all the knowledge to implement this feature.

I really enjoyed this project. The fun part was that I could never think of myself implementing a full-stack webpage from scratch (I study pure Mathematics!). The fact that I was able to think of a project, write all the code by myself, and have a little server running in the background was the most satisfying part of this project. It really brought me joy and satisfaction.

The breakdowns and checkpoints were not only useful for this project but also for all the previous homework. They provided me with a sense of orientation at a stage when I had little idea of where to start. Throughout the project, I would check every requirement and move on to the next feature to implement.

As a final remark, I want to say that I am very proud of myself for stepping out of my comfort zone and trying web development. I am very grateful that El was the instructor; I could not think of anyone more enthusiastic about teaching and sharing knowledge than El. As for my advice for implementing future Final Projects, I would say: please start early enough and think of your proposal on time. That's the only way you can stick to

the deadline since there are many things to handle, and one needs time to fix them and make everything work.