

## **Undergraduate Design**

Code Critiquer is a tool for beginners who are new to programming. It uses anti-patterns which identify and correct common coding errors. The users can upload their code or type their code in a text field. Upon submission, the site shows the lines in the code where there is an error. If the users want to look at their past submissions, they can do that as well. This app will help in improving user's knowledge of coding as they can review their code later in the future.

## **UI Domain**

Even though the app will be used to get better at coding it can also be seen as a writing app. It also can be seen as users using it to improve their writing skills. The UI is displaying errors that the user needs to fix. It can be also seen as UI displaying where the user needs to correct his/her English sentence.

## **Heuristic Usability Principles**

- 1) Proper interface design - Does the interface design look appealing to the users?
- 2) Responsiveness of the website - Does the user have a proper view of the website in their browser as well as on their phone?
- 3) Present clear feedback - Is the feedback provided to the user clear?
- 4) Use Engagement - Are reward systems or ranking systems added to keep the user engaged?
- 5) Error correction - What will happen if the user submits an empty file or a wrong file type?

## **Potential Usability Problems**

- 1) What will happen if all the components are not loaded correctly?
- 2) What will happen if the website is not responsive? When the screen size changes not all the contents show correctly.
- 3) There is no guide on how to use the app. What if the person is an absolute beginner? He or she needs to look at a guide on the website.
- 4) It is not mentioned which extensions the site supports. What will happen if the user uploads the wrong file type?
- 5) The user may feel demotivated to use the app after a few days as there is nothing else for the user to achieve on the website.

## **Critical Concern**

- 1) Content not loading properly for a different screen size.
- 2) Not mentioning which file type the file will support.

## **Critical Concern Stories**

- 1) Suppose there is a user named Micheal. When he tries to access the app from his phone he sees that his past code which he submitted is not loading but when he tries from the web browser it loads correctly. This type of problem needs to be addressed if it occurs.
- 2) A user named Janna tries to upload a file containing her code. The file is kept in a folder where other files of different extensions are present. She mistakenly uploaded a file of a different extension. If an error is not shown she will have no idea why the site is not working.