UI Remodel

Libby Edwards

Introduction

Taylor University's Game Contest Server was first created in the fall of 2013 by Dr. Geisler's Multi-tier Web Application Development course. Since then, the project has evolved through three previous Senior Project groups before reaching my group this year. However, with all of those students working on the project, no one focused solely on how the user interacts with the system. With my background in art, design, and Computer Science by being a Computer Science Digital Media major, my role in the project dealt mainly with creating a more pleasant user experience.

After being introduced to the project and running it on my machine, I saw the application for the first time. The initial look of a page is very important for web designers because they see the site in the eyes of a user rather than someone who knows the system well. So in that first look, I concentrated on asking questions like "What do I expect to see that isn't there?" or "What am I confused about?" My first look at the site showed that although the current design was slightly confusing and minimal, I had an open slate to take the look of the application to the next level.

Theme

After being introduced to the project and making notes on problems related to user experience, I began to develop a theme for the site. I considered the various games that are used or may be used in the near future in the Game Contest Server such as *Checkers*, *Risk*, *Settlers of Catan*, and *Battleship*. In the end, I decided on a picture of a battleship piece from the game *Battleship* because of its simplicity and color scheme. The aforementioned games all use colors of reds and blues and blacks, so I based the color scheme off of that. Also, I chose "Courier New" as the font type for the headers because it reminded me of a font that might appear in a game like this.

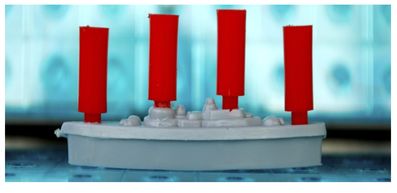

Figure 1: Header Image

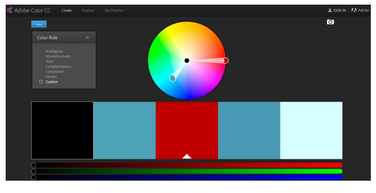

Figure 2: Color Scheme

Design Layout

Once I finalized my decision on a theme, I put my ideas into practice. This first began through creating mockups. I used a tool called *Balsamiq* that allowed me to try different ideas freely without having to code them first. Once I found a solution that I liked, I began translating it over to the web.

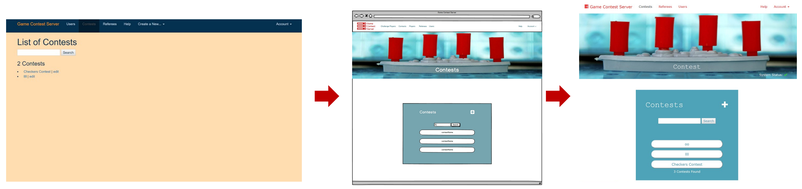

Figure 3: Design Process from Old to New

I used CSS and Bootstrap to help create a design standard. After creating the first page, I could use those same classes on other pages very quickly and easily. I focused on adding images and icons to make the page more visually appealing. Also, I wanted to make better use of white space. The old design in *Figure 3* had all of the content on the top left corner of the screen, which left a lot of real estate on the rest of the page open.

Home Page

Following my design decisions for the look and feel of the page, I then began working on the design of the Home page. My goal was to make this page be a collection of common actions that a user would want to take while using this system. Also, depending on which type of user is logged in changes what the user sees. If a user is an instructor, the view would look like *Figure 4* (right), but if a user was a student, the view would not include the ability to add a contest or add a tournament because students do not have those editing rights.

I especially wanted the home page to feel simple and easy to use, so the large teal squares are buttons that link to other main pages within the system. When the user hovers over a button the teal color lightens and the cursor changes to make it look like the square is clickable. In addition to the intuitiveness, I wanted there to be icons on the buttons that helped convey what each button would do.

Figure 4: Home Page from Old to New

User Experience

Other ways that I wanted to improve the user's experience included the enhancing of player selection and the use of tooltips. With the old system, whenever a user wanted to select a number of players for a tournament or for a challenge match, there was the list of all of the players in a contest with a checkbox next to each names. Now, at first that design seemed plausible, but as soon as a class full of student add their players to a contest, being able to scroll through all of the players and trying to see which players are selected becomes difficult. *Figure 5* shows my new implementation of selecting players by using a multi-selector which tries to solve the problem of selecting a large number of players. Another example of improving the experience for the user was adding tooltips. Tooltips are useful because they give hints to the user about what happens when he or she clicks a button or has to upload a specific type of file.

Figure 5: Multi-Selector

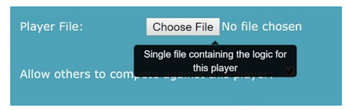

Figure 6: Tooltip

Usability Test

After I finished remodeling the User Interface, I wanted someone else to interact with my changes and record that other person's "first look" into the system. So I gave my tester the scenario of being a student. I asked her to do three different tasks: create a user, add a player, and challenge other players. The first two things she easily accomplished. However, I noticed that doing multiple actions in the system at once does not allow for an easy flow if the user does not always go back to the home page. So when she got to the third task, it was much harder for her to complete because the flow was not easily understood. Through this test, I gained some invaluable insight into what makes a website have good flow.

Conclusion

Overall, this project was a very good learning experience for me. I have never been able to take an existing site and transform it into something more user friendly on my own before. Also, being able to familiarize myself with a new code base and produce a fully remodeled site using that code base required that I manage my time well. I enjoyed this project very much and realize that although this would still be considered a rough draft in terms of a design for the site, I believe I made great strides in making the site more user-friendly.

Acknowledgements

First, I would like to thank Dr. Geisler for his extensive involvement in this project. He was there to help around the clock, and he was always willing to give as much time as was needed for me to understand a certain process in the system whether that being Ruby code or fixing broken tests. Secondly, I would like to mention my appreciation for Dr. White and Dr. Brandle who helped give their input on what would make the Game Contest Server worthwhile for them as instructors using the system. Finally, I would like to thank Maggie Frye for helping me with my Usability Test and for allowing me to work in her room so that I could be on Taylor's Wifi.