Acceptance Testing

To validate how well our system meets all requirements in the final stages of our development we used acceptance testing. By letting users outside our team utilise the program before release will confirm if the user stories we based our development on are accurate and were fulfilled successfully.

Our method for acceptance testing involved reviewing feedback forms and interviewing selected users interacting with our system. Initially, we planned to launch a trial run of the system on the members of the Computer Science Society. This would give our program a wide range of players to test our product and generate a diverse range of feedback from the optional feedback form. This would also allow us to observe the players using our system, gaining any information we can from monitoring their interactions. Unfortunately, due to the COVID-19 pandemic, such events were unable to be organised so we could not resort to such an idea.

Thus, we resorted to interviews and observations with our client on using our system and feedback forms gathered from allowing specific fellow computer science students to use our system. Fellow computer science students were the best choice to test the system due to the similarities they have with people of the computer science society and students attending open days.

We chose to use interviews with our client as it allows in-depth responses and a wide variety of questions to be asked. Furthermore, any responses can be further elaborated to ensure they are understood so any necessary alterations can be correctly made. Feedback forms were chosen as they are the easiest way to gather information from the players. Also due to the number of students, we will be allowing to test our product, we may be overwhelmed with information if we used interviews for all of them. The feedback forms ensure concise responses on how well they believe the program worked while having an option for any longer responses if need be. We can then easily analyse the gathered data and spot consistent areas needed for improvement.

Before allowing the third-party students to test the product we first went to our client. The interviews and observations were conducted over Teams calls. At first, we would get the client to use the system while sharing their screen, guiding them on how to use the product and observing their ease of navigation. While one of the team members were guiding the client, the others would be taking notes on the observations they saw of the interaction to later compare. Once completed we left the Teams call allowing the client to test the program themselves with no input from us. Then we came back in the call with our client, questioning him on certain aspects of the program and gathered the responses. We left time in the end for our client to tell us any further comments he had on the solution.

Here are a summary most important notes made from the interaction along with any refinements we made to the final system:

* Upon asking the client how well they believe the stonk market simulated an actual stock market; we were informed the variations of individual stonks seemed reasonable and realistic. The only problem he had was the newsfeed, which alters the values of certain stonks, was causing too much unrealistic volatility in the stonks.
  + This problem was fixed by significantly reducing the amount each news story affects each stonk and by increasing the time in which it takes for stonk to complete its change in value.
* Upon using the program themselves, the client noticed they could toggle on every stonk to be shown on the graph. He determined this was impractical due to a large number of stonks available hence made the graph unreadable and caused the website to become slow.
  + This problem was fixed by adding a limit of toggling the graphs for only 7 stonks at a time.
* Upon asking the client how easy they found navigation around the website they said they did not struggle to find their way around the website and were able to complete any tasks they needed to with ease.
* Upon asking the client to summarise to what level we met their original requirements they informed us that they were able to complete all tasks required with ease and overall have an enjoyable time using the system.

After implementing the necessary changes, we then began with the second half of our acceptance testing process by individually allowing 10 fellow students to test the system. We let them interact with the system locally, instructing them to fill out the feedback form after sufficient usage. The feedback forms were sent to our email and summarised in the figures below.

From the closed-ended feedback questions, it was clear our final release was a success. All our responses were positive with the majority of the students rating the experience a 10 and would absolutely recommend our system to a friend. In addition, we gathered our stock market graph was a very popular element thus displaying the successes of our stonk market algorithm.

In our feedback, we have a section for open-ended responses to any other thoughts on the use of the system. While many did not have further comments to make, two users made comments on believing the news feed would update and display information too often which made it too hectic. Originally in this design iteration, the newsfeed was updated every second so due to this feedback, we updated it to every 5 seconds instead, solving this issue.