TEAM MEMBERS: Karl Lawson, Sneha Santani, Yerania Hernandez
TEAM NUMBER: 21

Sprint 1 Retrospective

Considering it was our first sprint as a team, there were good aspects and other aspects that require improvement. A good aspect of our team was having prepared our sprint backlog and staying on task in order to accomplish each of the items on the list. This allowed each one of us to be held responsible for the tasks that we were assigned. Considering we were able to split the items as evenly as possible, we were able to target each part efficiently. During our scrum meetings, we were able to discuss where we were and what was consuming most of our time. This allowed us to allocate our time to those tasks that could be easily done first in order to make sure we had a working game that displayed the information that was necessary. Afterwards, the details of the display would be updated and configured much more neatly, but the basics is at least displayed in order to test it for the user input. Further functionality was added through checking if the game was over and if the user's turn was over in order to provide a better vision of how our game was working with the interaction of the user. This allowed us to see if the computer or the user was winning and if the seeds were moving appropriately. However, one of the tasks that was most time consuming was the min-max tree.

Although we expected for the min-max tree to take the longest amount of time to accomplish, one of the drawbacks was the minimal time we were able to implement through Spring Break on this specific aspect. Most of the hours we were able to work on this aspect of the project was towards the end of the week, which meant that the first two scrum meetings were a slow start to get things accomplished for the min-max tree. However, at the end of our sprint we were able to implement more functionalities to our board game as well as invest more time in investigating the min-max tree. This allowed us to at least get an idea of what we were trying to accomplish and provide a simplistic tree where the computer could play in response to the user. We need to improve our time allocation to longer and more time consuming tasks as a priority considering these will be important in improving our algorithm and being able to play the game more efficiently. These require more than just coding time, but also extensive research in understanding how these algorithms work and how we want to approach the implementation within our game board.

Throughout this process, we were able to realize quite a few adjustments that could be made to the game and therefore the product backlog would need to be adjusted. One of the modifications is an improvement in the utility function and min-max tree. This means further testing of both aspects of our game and continuing to develop them in order to provide a much better algorithm that is provides the best possible move. This could either mean we could implement multiple AI levels or instead focus on improving one algorithm to being more developed. Another modification that will need to be made to our backlog is implementing a better visualization of the game, starting from the home screen to the actual board game in order to have a more appealing look to the user. As we further research other aspects of min-max tree, along with alpha and beta pruning, our focus will need to be shifted over to these algorithms with a stronger emphasis on them.