## Scrums:

| 09/19 | reviewed game rules, then created and discussed user stories |
|-------|------------------------------------------------------------|
| 09/24 | created and discussed CRC cards along with class diagram |
| 09/26 | review and decide on final changes to plan |
| 10/11 | the content of the game was discussed, the file task was assigned |
| 10/21 | improved P1 documentation |
| 10/24 | assigned code tasks and set deadlines |
| 10/31 | tidy up the code and finish the assignment of the speech task |
| 11/13 | discuss P2 with the professor |
| 11/14 | make a new plan, assigned code tasks and set deadlines |
| 11/27 | Emmett and Nana adjust foreground and background code |
| 12/2 | update the progress of the project and make a plan. Emmett and Nana work together to complete functions such as chess |
| 12/3 | Jacinda worked with Emmett to complete the invitation function |
| 12/4 | we went to the professor's office to show the demo of P3,and then we update the progress of the project and make a plan |
| 12/8 | We integrate the project, adjust the normal operation of the project |

## Sprint Review:

| P1 | | participants |
|----|--|--------------|
| 09/19 | During our first scrum, we familiarized ourselves with the game Hnefatafl. We then read over the transcript in the P1 document that described what the client wants out of the Hnefatafl game system. From there, we created user stories based on the requirements and assigned them a time estimate. | 4 members (Nana,Emmett,Jacinda, Miriam) |
| 09/24 | During our next scrum, we created CRC cards based on these user stories. We also created a class diagram using the CRC cards as a reference. | 4 members (Nana,Emmett ,Jacinda , Miriam) |
| 09/26 | We then had a meeting with the professor/"product owner" to verify the user stories and discuss priorities. This also helped us gain a better understanding on what we needed to revise and complete by the end of the sprint. | 5 members |
| P1 Review | During the whole process of P1, we gradually got familiar with how to assign tasks, understood the rules of the game and the design prototype.We showed the professor the User stories and got the priority for each task. | |
| **P2 (Only three people work)** | | |
| 10/11 | During this scrum,we discussed the file content of P2 together and allocated the files within the file. | 5 members |
| 10/21 | During this scrum,we asked the professor about the parts of the P1 document that could be improved.The task of file improvement was assigned. | 4 members (Nana,Emmett ,Jacinda, Miriam) |
| 10/24 | During this scrum ,together, we solved the game's implementation of the code logic for the round, assigned code tasks based on the improved task and | 5 members |

| | each person's familiar direction, and worked out the deadline. | |
|---|---|---|
| 10/31 | During this scrum,we consolidated the code and assigned P2 presentation tasks | 3 members (Nana,Emmett,Jacinda) |
| **P2 Review** | During the whole process of P2, two members chose to cancel the class and leave the group, so the progress of the project slowed down.We put forward the problems in the group to the professor and solved them in time.The completion of the game is not high. | |

## P3 (Only three people work)

| | | |
|---|---|---|
| 11/13 | During this scrum,we went to the professor to discuss the group member problem of P2 and discussed the new task of P3. | 3 members (Nana, Emmett, Jacinda) |
| 11/14 | During this scrum,we analyze small unfinished problems on the project, simplify them and assign them to members. | 3 members (Nana, Emmett, Jacinda) |
| 11/27 | During this scrum,we adjusted the code and the project to complete the connection on the code. | 2 members (Nana, Emmett) |
| 12/2 | During this scrum,we update the progress of the project and make a plan. Emmett and Nana work together to complete functions such as chess | 3 members (Jacinda, Nana, Emmett) |
| 12/3 | During this scrum, Jacinda worked with Emmett to complete the invitation function. | 2 members (Jacinda, Emmett) |
| 12/4 | During this scrum,we went to the professor's office to show the demo of P3 and explained the problem that there were only three people in the team. | 3 members (Nana, Emmett, Jacinda) |
| 12/8 | During this scrum,we integrate the project, adjust the normal operation of the project | 3 members (Nana, Emmett, Jacinda) |
| **P3 Review** | During the whole process of 3, the group of five became a group of three, and we gradually finished the rest of the task.At the end, I showed the demo of the game to the professor and used the last time to perfect the game. | |

## Sprint Retrospective:
### What went well:

| | |
|---|---|
| P1 | Our scrum meetings contained good discussions that allowed us to gain a better understanding of the game and the system we needed to create. We also asked a lot of helpful questions, and left each meeting having accomplished something, while also having a plan of what we needed to do next. |
| P2 | Our scrum meetings discussed a lot of details about the implementation of the game, actively assigning tasks, making plans for each week and the next meeting time. |
| P3 | We improved the efficiency of the meeting, and actively responded to the professor when we found the members' problems.Properly allocate your time and tasks.Try to finish the project. We strive to complete the project to the best of our ability. |

### What could improve:

| | |
|---|---|
| P1 | We could improve on being clearer on who is going to complete certain things. For example, sometimes it was unclear on who was working on what, and this could cause problems such as people working on the same thing at once, or some things not being completed at all. We plan on fixing this problem by using Zenhub, which will allow us to create tasks and see which ones are currently being worked on and which are left for others to claim. We can also work on time |

| | |
|---|---|
| | management to ensure that we are utilizing as much time as possible throughout each sprint. Finding times where all 5 of us could meet was also somewhat difficult, and there would sometimes be meetings where not all members were present. We can solve this by planning our scrums a couple days in advance, so that we can determine a time that works for everyone. |
| P2 | During the retrospective, we reflected on the work and code we had done this sprint and identified what we could improve on for the next sprint. While we made some changes based on what we thought we could improve on last time, such as communicating with each other more frequently, we can also continue working on things such as time management by updating the Kanban board/Zenhub more frequently. This will help with completing more tasks. |
| P3 | Staff changes are too large, some members are not actively involved in the project, resulting in the project is not completed well.Early detection of personnel issues allows for better scheduling and allocation of time. |