The Scrumbags

CS 1530

Prof. Laboon

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Sprint 4 Write-up

In the fourth sprint, as there was only one required user story that the customer required which we needed to implement, we ended up creating and adding new stories. As a group, we also had a lot more time on our hands this sprint, and we took advantage of this. One of the members re-factored a great deal of code so that our codebase would be easier to work with in the future. Many problems had arisen from writing code that worked, but did not follow good object-oriented programming practices. Magic numbers were replaced with final constants and tightly coupled code was fixed and made more understandable. Not only did we change the old code, but we remained mindful of this as we wrote the code for this sprint, making sure to do it right as it would save us time going forward. In addition to this, a great deal of work was done on features like AI, which will not be implemented until the next sprint. We wanted to take advantage of the extra time we had this sprint and start implementing more complicated functionality which may require more time to complete.

Our work-flow was greatly improved this sprint by implementing simple practices. One of the problems we experienced in the last sprint was due to not merging in pull requests as soon as we should have. We routinely left three pull requests sitting on Github. While none of them would have conflicts with the master branch, whenever any of them would merge into master, it would create conflicts with the others and we would end up in merge hell. This sprint, we never let the amount of open pull requests rise above two, and we made an effort to be more aware of when the changes we were making would affect the code other people were writing. This was especially important during this sprint as many of us were working on the same files. In earlier sprints, we mainly divided up work by different functionalities which were in different files. Working on the same files was a new challenge, but we managed to successfully do this with adequate communication. We continued to communicate on-line through a chat room, but the amount of communication greatly increased during this sprint which lead to saving time in the long run by eliminating mistakes, confusions, and mis-communications. We were also communicating every day as we saw each other at Pitt.

In sprint 4, we also got a lot better at estimating the amount of time it would take to implement user stories. In other sprints, we had greatly underestimated the evaluation of story points that all of the user stories should have. Functionality which took one developer an entire sprint was not even close to the full sixteen points that it should have been. This sprint we were much more realistic with the story points and increased their values. As alluded to, we’ve all found this to generally be a hard task, and one that is tough to get write. We have had difficulty anticipating problems that we would run into along the way in developing new functionality. As time has gone by and we have put more work into our codebase, we have all become more familiar with the code as a whole. Whereas in the beginning everyone worked on their own separate little pieces, by this point we’ve all had a chance to make meaningful changes all over the codebase. We think that this has been very effective in being able to make better estimates. Because of our familiarity with all of the different parts of the codebase, we have a better idea of what will need to be added and changed in order to implement new functionality, making it much easier to see where potential problems and difficulties will pop-up before diving in.

For this last final, sprint we are hoping to finish out strong. A lot of the problems that we faced in earlier sprints have now been addressed. We are no longer having merging problems, we are all communicating very well, and we this communication has meant that multiple group members working on the same code concurrently have much less issue. We believe that the refactoring done this sprint will make future changes in sprint 5 demonstrably easier to implement, and are looking forward to an excellent final sprint to finish up the semester.