CPSC 254 Open Source Project

Tic-Tac-Toe

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Beginning of Project

In the beginning of the project, our team had decided on doing game snake. With this in mind, we were able to find a repository on Github that seemed to have very clean code and the MIT license we were looking for. Unfortunately for us, once we tried to compile the code there were numerous errors and we had to look for another source code. With no luck, we decided to change from team snake to team tic-tac-toe. With this change, we were then able to find source code with the desired license and code that was able to run, even though installing the necessary libraries was a pain we were relieved it was running. With the code running, we then moved on to the changes and goals we had in mind for the project.

Goals of our Project

With Tic-Tac-Toe being such a simple game, we began looking at what kind of changes and new features we could implement. One of the first things we wanted to do was change the look of the X's and O's displayed, and the font. Our next feature we wanted to implement was creating a scoreboard in order to keep track of how many times a player had won. The scoreboard was not something that we had seen on the game and was a feature we wanted to include. A new feature that we thought would be nice in such a quick game would be a timer. The timer idea came up so that it made it that the players can take no more than an allotted time playing or else the game would be over. Another feature we wanted to have was the ability to take in the users name and display it so that when someone won, it would display their name followed by the word won. One last feature that we more of a stretch goal than anything, only

something to be done if time allowed, was to change the sounds made when a sprite was put down. A sprite is just the X or the O placed onto the grid.

Process of Making Changes

Each team member was assigned a different task. Heriberto was assigned the timer and sound changes, only if time allowed. Stephani was in charge of the user input and changing the display of the X's and the O's as well as the word that display Tic-Tac-Toe. Shane was in charge of making the scoreboard. I, Stephani, had the most issues allowing for user input. As I am used to Visual Studios, I worked there and later pushed my changes into Github and ran it on Linux. The user input prompt displayed in the console in Visual Studio but unfortunately not for Linux. As there is still time to finish it, that is an error I am trying to fix. As far as the timer goes, Heriberto had trouble implementing it in the correct file. As he would try and write the code for the timer, there would be issues where the the game would begin but then no sprites would be placed, or in the console it would take in input but the game prompt itself would not show up. For Shane, he was able to put in the missing scoreboard in the terminal editor and get a missing part in our project successfully.

Other Details

The biggest struggle for all of us was figuring out how to use another library. The library used was SDL, Simple Directmedia Layer, a library that provides low level access to mouse clicking, audio, images and the keyboard. Personally, for me, this library was a lot harder to understand than the std library I am so used to. We were all able to eventually work with the

library and get our changes in progress. Luckily this library mentioned works in C++ which is the primary language of all the team.

Closing Remarks

As this is written before we give our presentation, we are not fully finished with every goal that we wanted to accomplish but we are more than halfway there. The timer works, the sprites and title font have been changed, and the scoreboard is now working. One of the few things left to do is to possibly change the sounds and get the user input prompt to display in Linux.