Tic-Tac-Toe Project Report

CPSC 254-03

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**Project Summary**

*Details*:

Our project is an improved version of tic-tac-toe based on a basic open source game of tic-tac-toe by Chris Kempson. This open source project is fairly simple and does not have any other controls than clicking to start the game, clicking on your chosen spot, and opening an about page.

*Goals*:

Our original goals were to change up the look of the game. We were going to do this by adding different icons for the the users to play with. We also wanted to implement an undo function so that a player could undo their opponent’s last turn while keeping their turn. Lastly, we wanted to implement a menu where the user could switch between tic-tac-toe and connect four.

*Open Source Project/Libraries*:

Our project took advantage of this open source tic-tac-toe game by Chris Kempson under the MIT License (<https://github.com/chriskempson/cpp-tic-tac-toe>). We used this open source game and added a few more features to it. Additionally, we used the Simple Direct Media Layer 2 (SDL2) libraries which was included inside the original open source project. The SDL2 library was used to add certain game functionalities like the detection of keypresses.

*Achievements*:

We were able to implement some of the changes we sought out to complete. For example, we were able to change the look of the game during runtime. This was achieved by adding new functions to handle a value that can be accessed by the entire program. We did this by making two functions, one that changed the value in a file and one that retrieved the value currently in the file. This was used alongside several checks throughout the different state classes of the program. These checks allowed the program to load up custom made images to change up the color scheme for the entire program.