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CSCI205 Final Project - WordFX  
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## **User Manual**

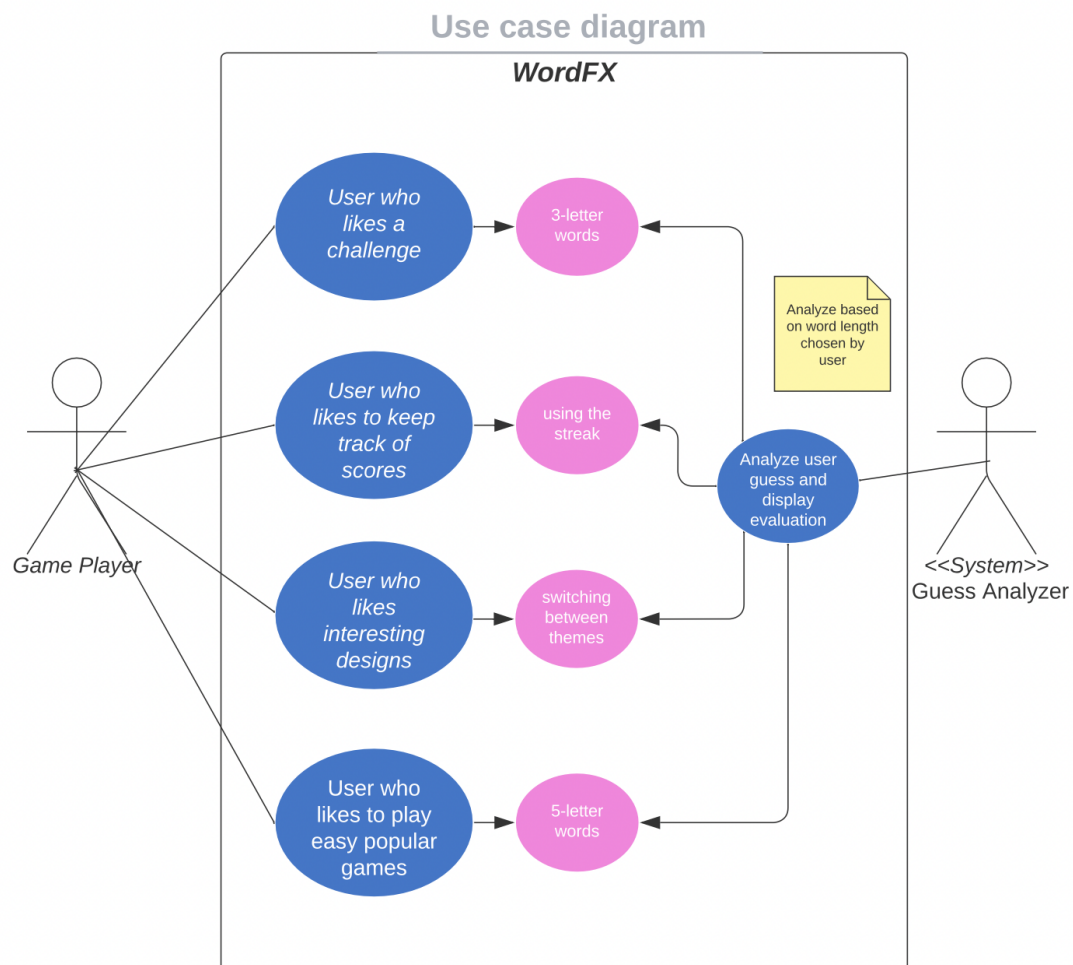
### [ General Statement ]

WordFX is a duplication of the web-based word game called “Wordle”, owned and published by The New York Times company since early 2022. The game was originally designed and developed by Welsh software engineer Josh Wardle. The driving problem of this project is that the current version of Wordle has limited functionalities. Thus, we proposed to provide additional elements in our version that could add functionality and appeal to a larger group of users. We enhanced the user experience by including three different modes that would allow users to choose a more competitive or more difficult version, and by adding a streak that would carry through each mode. We also included the option to be able to drag the individual letters into a specific spot in a tile of your choice, so that you can change parts of the word without having to delete the entire word. This was something that our team found frustrating when playing Wordle, so we wanted to fix this problem.

### [ Introduction ]

The project is named WordFX, established by a group of four students, taking CSCI 205 at Bucknell University, that go by the name of ‘Liv & Gang’. It takes the game Wordle, which has been going viral since the beginning of 2022, and adds more functionalities. Moreover, the intention of this project is to create a similar game to Wordle that could adapt to different users who are more competitive players, users who would like to play the game more than once a day, and those who would like to try the game at different word lengths. Therefore, the group decided to create a game that has three modes. There is a hard mode, medium mode, and easy mode, each using three, four, and five words respectively. We reserved the traditional mode for those who enjoyed the simplistic original version that uses 5 letter words. To begin, the user will be asked to select the game mode depending on their desired difficulty level. Then, the user can simply

play the game similarly to the Wordle game, with six total guesses. If a user wins and chooses to play another game, their win streak (if any) will be recorded. Therefore, the user can play as many times as they would like in one day, and choose between all three modes while maintaining their streak. Additionally, we added a dark mode functionality for people who prefer this aesthetic.



[ Background ]

Wordle is a game that has gone viral in 2022, and all of the team members of this group had been playing Wordle for at least 2 months prior to the beginning of the project. Based on

general discussion and feedback from peers who are regular players of the game, there are things that the game is lacking that would make the game much more interesting and fun to play. The fact that the word changes every day has ingrained the daily game in the team members' lives. At least for us, like brushing our teeth and getting dressed each morning, playing Wordle has become routine. However, similar to any routine performed on a daily basis, optimization is desired to avoid any dissatisfaction. Aside from compiling a list of functionalities to add to Wordle within the team, we also surveyed other professors, students, and even friends outside of Bucknell to get their input on what else should be added. Upon completing the project, we hope to achieve everything that has been identified and optimize the game to the highest level of satisfaction.

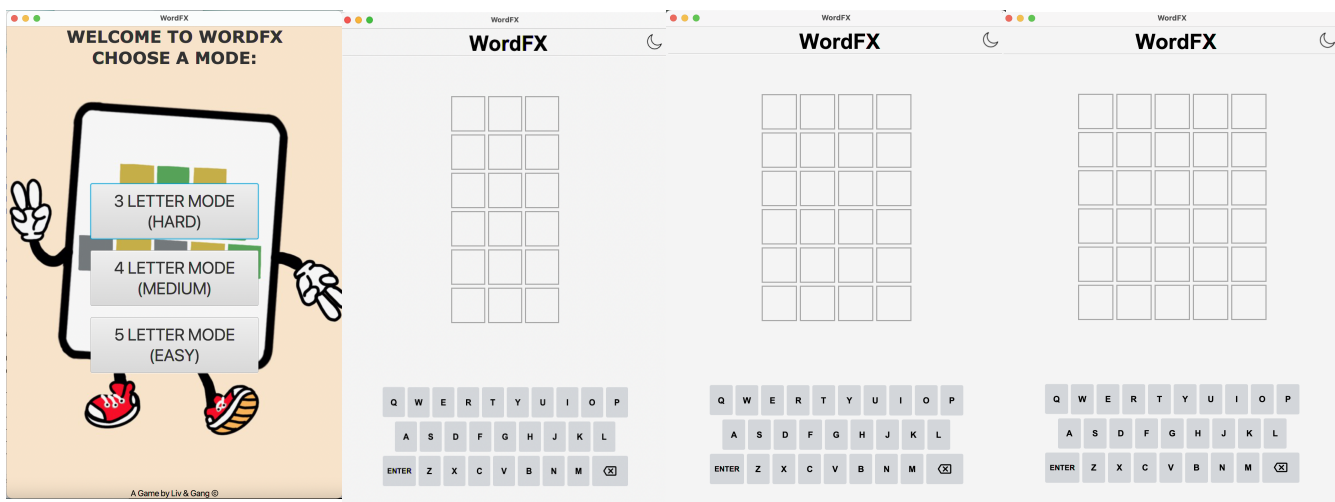
#### [ Motivation ]

Building off of the background, we have all played Wordle prior to working on the project and individually also felt the game was lacking features. After surveying our peers, some of the complaints that we obtained included not being able to delete certain letters without deleting all the letters after it, lack of difficulty, and inability to play the game more than once a day. Rather than contacting the developers of the game, we overcame those hurdles by incorporating said features into our version of the game, WordFX. To combat these inconveniences, we added a drag and drop feature that allows a user to drag any letter from the virtual keyboard and drop it to any space in the tile, which would replace the letter already in the space. This permits the user to be able to alter any part of the word without having to delete the entire word, which is one of our main complaints with Wordle. Additionally, we created three different game modes, two of which are different from Wordle: a three letter word mode and a four letter word mode. Additionally, by introducing different game modes, players are now able to play the game as many times in one day. Some may argue that adding this feature may take away from the uniqueness of winning the game every day and anticipating the next time you could play, which makes it more competitive. To include the more competitive aspect of the game, we incorporated a streak count that would allow players to compete for the largest streak. Throughout the process, we individually struggled with minor errors, but we prevailed and managed to solve our programming problems. By the end of the project, we were highly satisfied

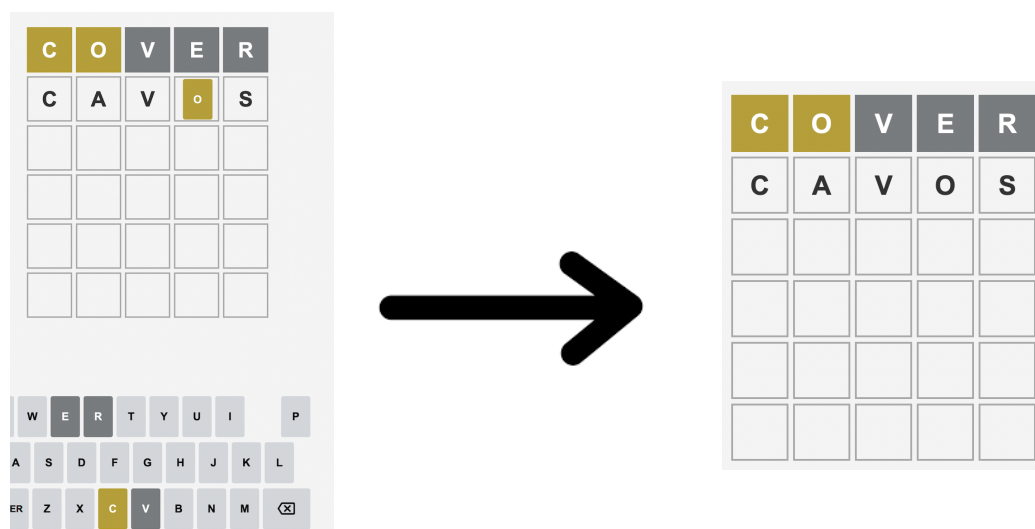
with how the game turned out despite the time frame we had. We hope WordFX addresses minor inconveniences that users experience and that our version of Wordle provides users satisfaction.

## [ User Instructions ]

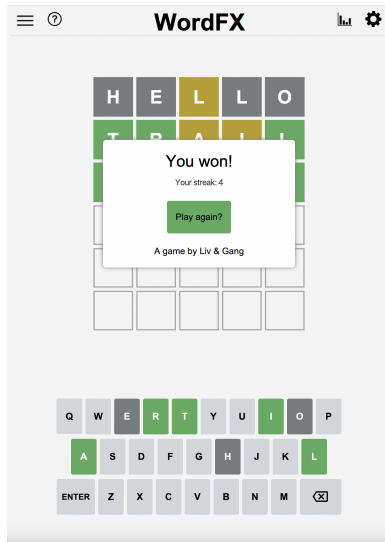
Our design is very simple and user friendly to allow the user to customize their experience to their choosing. The first screen that opens up is the screen that allows the user to choose the length of the word that they will be guessing. It is clearly laid out and easy for the user to choose with a simple click of a button, and also indicates the difficulties of each mode.



Then, the user can either type on their keyboard or individually click the letters on the virtual keyboard. Additionally, the user can drag and drop a letter from the virtual keyboard and place it in any tile they choose, even if there are letters after.



The user can also either press the delete key on the virtual keyboard or use their computer keyboard to delete. Once the user presses enter on either keyboard, the guess is then analyzed by the system and their answer evaluation is displayed on the screen by changing the color of the tiles and the virtual keyboard. For this we used the same implementation as Wordle: if you get



the letter in the correct spot, it turns green. If the letter you guessed is in the word but not in the correct spot, it turns yellow. Lastly, if the letter is not in the word at all, it turns gray. If the user guesses correctly within six tries, they increase their streak. The streak carries through all three modes, so switching between letter modes does not reset your streak. If you do not guess the letter in six tries, you will lose your streak but can continue to play and your streak will reset. Finally, we added a different dark mode that the user can switch to any time during the game if they are looking for a darker aesthetic.

