**­­ISP Improvement record**

**Student Name: Erfan Yeganehfar Project Name: Wheel of Fortune**

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| Structure changed(i.e. variable, loop, method) name and type | Structure added (var,loop, if statement, method, class, comments)-name and type | Purpose in the program | Impact on the overall program  (how does it change the performance). |
| Changed the sort functionality from hardcoding it multiple times to using it within a method | Added method sortScores ()  Sorts the highscores values and names using bubble sort  Changed display so that the winner of the current round may be included In the highscores using an if statement. | An if statement that includes current winner in the highscores, Sorts highscores with bubble sort, to be saved to the Highscores file and to display them in descending order. | Overall is better to call a method to sort the arrays then hard coding it every time I need to sort the highscores (for kiss). Adding the current winner to the highscores allow the program to work as intended. |
|  | Added some more String literals to the wrdBank array. | They represent the puzzles that the users would be guessing in the game. | Adds some more nouns and phrases for the player to play with allowing the program to flow longer without having to re shuffle the word bank. |
| Changed the output structure of the displayHighScores method  Print formatting | Added some more exceptions when reading the high scores | Exceptions are used to tell the user what may be wrong with the program.  The display allows the user to view the results of the high scores | The high scores screen is modified so that it is more user friendly, allowing the user to have a better experience. The exceptions allow my program to execute without crashing allowing it to “preform” longer. |
| Changed blackbox methods so they do not output anything to the user (checkchar) | Added the output from the black boxes to the display | The black box methods should only be for processing so outputting to the user is not needed | Reduces redundancy as the output could have been done inside the display method. Also follows black box rules of not outputting |
|  | Added sortScores and PrintWritter to saveHighScores ()  (added a for loop and try catch statement to update the scores) | Updates the high scores to the HighScores file | This method was needed to save the new winner scores into the highscores array |
|  | Added an if statement to askUserName to allow the user to quit to the menu if they chose to. Added the same if statement within display so that the main game does not run. | Allows the user to go back to the main menu | More user friendly for the user |
|  | Added an if statement and a new variable called int tempGuess to erase letter sthat are not available | Game function | Allows the game to function better for the user visually |

**The record must be filled out on a computer. Print and hand in by Friday, January 18,2019.**