Name: Avetik Hakobyan

|  |  |  |
| --- | --- | --- |
| Test Cases for the Battleship game | | |
| Test Case | Scenario | Expected output |
|  | Player does not enter a name in CLI for a new game | Prompt user for name until it is not empty or give option to load a saved game or exit |
|  | Save game file has more rows in the saved board than are listed at the top of the file | Inform user of corrupted game file and give option to exit or start new game |
|  | Player chooses square of the board that has already been guessed | CLI: Inform user it has already been guessed and prompt for a new move  Frame: Square should be disabled |
|  | Player chooses square that sinks a ship | CLI: Register hit and print the specific ship that has been sunk  Frame: Register hit and change ship name to red colour |
|  | Player chooses square that is out of the board (invalid input) | CLI: Inform user it is invalid and prompt for a new move  Frame: A pop-up window |
|  | Player undoes more than the last move | CLI: Print message to the user that it is possible to undo only the last move and continue to prompt for move  Frame: Undo button is disabled |
|  | Player undoes the move before the first move of a new or resumed game has been played | CLI: Inform user it is impossible to undo the last move before the first move  Frame: Undo button is disabled |
|  | Player chooses to enter P in the CLI | CLI: Inform user that there no options available for P and continue to prompt for move |
|  | Player chooses square that is a hit | CLI: Print message: “It’s a hit!” and provide the updated board with a H in the guessed position  Frame: Display a pop-up window: “It’s a hit!” and wait for the next move |
|  | Player chooses square that is a miss | CLI: Print message: “It’s a miss!” and provide the updated board with a M in the guessed position  Frame: Display a pop-up window: “It’s a miss!” and wait for the next move |
|  | Player undoes their last move | CLI: Print message that the move has been undone, display game board and prompt user for move  Frame: Display a pop-up window and wait to the next move |
|  | Player saves the game | CLI: Print message that the game has been successfully saved to the file  Frame: Display a pop-up window that the game has been successfully saved to the file |
|  | Program fails to save the current game (write to the file currentGame.txt) | CLI: Inform user the program failed to save the game due to an error and print the error message  Frame: Pop-up an error message about the failure of the saving process |
|  | A ship (carrier, battleship, cruiser, submarine, or destroyer) position is missing in the gameSettings.txt | Validation is done for the file and the game is not proceeded  Inform user about corrupted game setting file and give option to exit or browse the gameSettings.txt |
|  | Information about the row of the board is missing in the gameSettings.txt | Validation is done for the file and the game is not proceeded  Inform user about corrupted game setting file and give option to exit or browse the gameSettings.txt |
|  | Information about the column of the board is missing in the gameSettings.txt | Validation is done for the file and the game is not proceeded  Inform user about corrupted game setting file and give option to exit or browse the gameSettings.txt |
|  | Save game file has more columns in the saved board than are listed at the top of the file | Inform user of corrupted game file and give option to exit or start new game |
|  | Player does not enter a square | Prompt user for square number until it is not empty or give option to exit game |
|  | Player chooses the last square that sinks all the ships | CLI: Inform user that they won  Frame: Display pop-up message window indication the win |
|  | Player’s name is missing in the currentGame.txt | Inform user about corrupted game file and give option to exit game or start new game |
|  | The current board is missing in the currentGame.txt | Inform user about corrupted game file and give option to exit game or start new game |
|  | Information about the row of the board is missing in the currentGane.txt | Inform user about corrupted game file and give option to exit game or start new game |
|  | Information about the column of the board is missing in the currentGame.txt | Inform user about corrupted game file and give option to exit game or start new game |
|  | 2 ships in the gameSettings.txt have the same position | Inform user about corrupted game file and give option to exit game or start new game |
|  | Player chooses letters as input for the square number | Inform user that the square number must reference a row and column |
|  | Check horizontal, vertical or diagonal ships when loading | Inform user about corrupted game file and give option to exit game or browse the gameSettings.txt |
|  | Check ship size and position in both files |  |
|  | Player wins |  |

Methods for Interactions in the interface and frame, also move interactions:

Hit, miss, invalid move, win