Program: hw5.cpp

- This program is a game that simulates landing a rocket ship. The player is trying to land a spacecraft on the moon safely (as close to 0 ft/sec as possible) when beginning at 1000 ft above the lunar surface and a given velocity of 50 ft/S. At 1 second intervals, the player is permitted to burn fuel which changes the speed of descent of the spacecraft. The amount of available fuel is 150 lbs.

- To run the program, you must compile it and then execute it using programs such as VisualStudio, Xcode, or a command line interface.

- When the user runs the program, they will be prompted to enter the name of their spacecraft, whether they would like to save logs of their games to an external output file, and whether they would like to read instructions.

- If the user chooses to save their output to an external file, they will be asked for the name of that file.

- If the user inputs "y" or "Y" to read instructions, instructions will be output to the console.

- Once the game starts the user interacts with the spaceship by choosing the amount of fuel they wish to burn each second while there is still fuel left. The program updates the values of height and velocity at each turn and stops when the spacecraft reaches the surface. At this point, a final analysis is printed.

- The program assumes the user will enter valid inputs.