User Manual:-

PROGRAM: lunar_lander.cpp

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PROGRAM PURPOSE:

The is a small game named Lunar Lander, which is based on a variety of similarly themed games inspired by the Apollo 11 space mission of July, 1969 in which US astronauts first landed on the Moon. After running the program, it'll engage the user in a session that plays the game, updates the values of height and velocity at each turn and stops when the spacecraft reaches the surface (aka touchdown). At this point, a final analysis is printed.

To run the program, please open the lunar_lander.cpp file in a compiler that is able to compile any program, which is written in C++. After that, build and run the program.

New windows will pop-up. It will show you a few lines about the purpose of the program along with some welcome messages. Then it will ask you to enter the name of a file where you would like to log your session. After that it will ask you whether you want to see the instruction for the game or not. If you type 'Y' or 'y', which stands for "Yes", then it'll show you the whole instruction in details. Now, you'll start playing the game. Every time you just need to initialize the amount of fuel you would like to burn, but before playing I would like to say that while giving inputs, don't set the amount of fuel that is going to be burned less than 0 or greater than 30. However, based on the input, the program will update the values of height and velocity at each turn and will stop when the spacecraft reaches the surface (aka touchdown). At this point, a final analysis will be printed. I hope you'll definitely enjoy the game!