

Planning for Lunar Lander Game

In Lunar Lander Games, the player usually controls a spaceship using its thrusters to make it descend and land safely on the surface of the Moon or other extraterrestrial bodies.

For this game I will firstly start with planning the basic structure of the game and the features that it will include.

1. I will need 3 cases (Start , Playing , Gameover) with different screens, so I will use the switch() statement to swap between the game states and I will start by creating and working on the playing state.
2. I will create some placeholder objects to focus on the gameplay.
3. I need to implement the concepts of gravity and acceleration plus other movements to the placeholder object for the spaceship.
4. After I manage to make the spaceship spawn and move on the screen, I will make the spaceship detect if it lands on the landing pad. In the case of correctly landing on the pad, without exceeding the size of the pad or the maximum landing speed, the game will show a green text saying " SUCCESSFUL LANDING". If it manages to land on the pad, but doesn't respect the speed limit, a red text will appear saying " FAIL! You Crashed."
5. If the spaceship misses the landing pad or exceeds the limits of the Canvas a new red text appears that says " OUT OF BOUNDS ".
6. Having created the different cases for the " Playing" state, I will make the rest of the screens for the "Start" and "Gameover" states, which will also include the possibility to restart the game by pressing ENTER and the landing page that tells you how to start the game.
7. After finishing this basic structure I will create the graphics for the rocket and the landing pad and add them to the final game.
8. I will add the concept of fuel and fuel consumption to the rocket with its own case: If the rocket runs out of fuel a red text appears that says " OUT OF FUEL". The player will have a counter in the left top corner of the screen to keep count of the available fuel. Also with this update I will add a counter for the vertical speed of the rocket on the top right corner.
9. Lastly, I will add the background with the stars and make the canvas fill the whole window and resize itself whenever the window is resized.