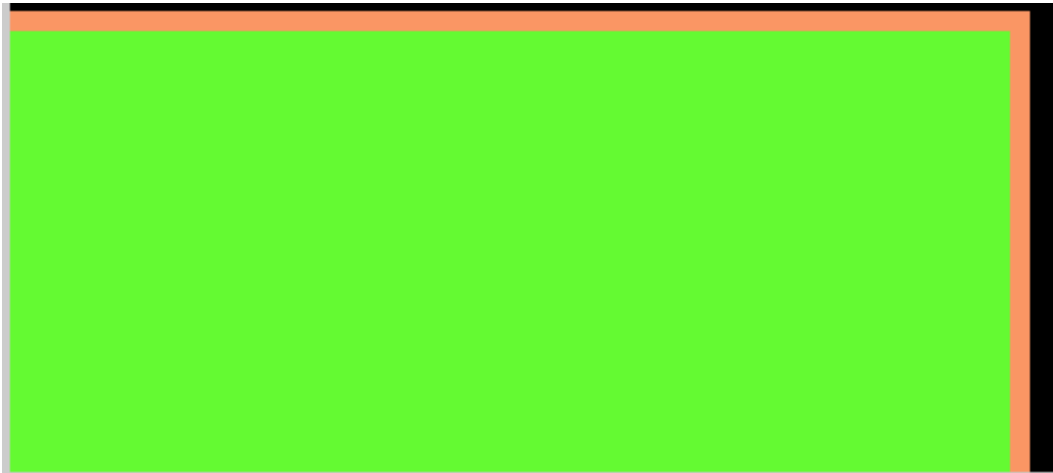


As a whole, this is what the current project looks like, with the red bird image block being moveable by wasd, the big green rectangle being mostly stationary and the white block moving back and forth between the edge of the screen and the green rectangle.

For this assignment, I was asked to make 3 shapes, a stationary platform, a moving platform with a regular movement pattern and a moveable character that takes in input. All of these must be an inheritance class from a base SFML class. For the stationary platform, I decided to go with a big rectangle shape that extends from the base SFML shape with no deviation from the basic shape, it's just a big rectangle that is somewhat hidden by the bottom left corner, this serves as the ground that in the future, the playable character will walk on and jump off of (currently, the jump function does not work, I will elaborate more on that when I talk about the movable character). To the right of the stationary platform is an empty space, this space is for the implementation of the moving platform. The thinking here is that this stationary platform will be followed by an empty space, and then another stationary platform, the empty space will have a moving platform that bounces back and forth between the platforms (I will elaborate more on the moving platform later in it's own section), everytime a moving platform hit and bounce off of a stationary platform, the stationary platform will fluctuate a bit upward and then the next time it gets hit, fluctuate a bit downward (both by 20) I want to do this to make it a

bit more challenging for the player when they try to time the jump off of the stationary platform to the moving platform. Lastly for the stationary platform, the color and outline is just currently a placeholder color. Below is the image of the stationary platform.



Secondly is the moving platform, which is also inherited from a basic rectangle shape. The moving platform is a 60x30 white horizontal rectangle that currently bounces back and forth between the edge of the screen and the stationary platform. The intention of this platform is to be a challenge for the player to jump from 1 stationary platform, to a moving platform and then on to another stationary platform. Underneath the moving platform is empty space so if the player misses the jump, they die, this is intended to be implemented by once the game is done being developed. Furthermore, as said before, when a moving platform hits a stationary platform, the stationary platform fluctuates up and down by 20 to increase difficulty. In the future, there will be moving platform that moves on the y axis instead of just the x axis, platforms that fluctuates in speed, as well as multiple moving platforms next to each other. One problem that I need to solve soon is how to update the location of the playable character when they are standing on a moving platform. In regards to the speed of the moving platform, I have it set as twice as fast as the playable character, (currently the platform's speed is 2 and the character's is 1) I did this because I think it would be more of a challenge. Also, every objects that have speed, the speed is implemented as private variables of each class in the header file, this makes it easy to increase or decrease the speed of each objects if the game proves to be too hard or easy. Below is the image of the moving platform.



Thirdly and lastly, is the playable character. Currently, it is a 30x30 square with a free use bird image with a red filter as texture. I wanted a bird because currently the jump function

doesn't work so I the character is sort of just flying around when you input W (for up), S (for down), A(for left) or D(for right) as for the red filter, I wanted it to stand out as the playable character. In the implementation, the function for the character's movement and physics currently takes in a boolean and a collision rectangle border as parameters, this is my current plan for how to implement jumping, with the boolean being a true if the character is in the air and false if not, when they are in the air, they can't use jump, as for the collision border, it's to detect whenever a character isn't or is a platform. After a few attempts which included one where the character constantly bounces like a basketball as they move (I considered keeping this, however it would have been too disorientating considering the platform itself move, as well as the player needs to jump onto moving platforms), my gravity and jumping hasn't worked so it is for the next iteration. As mentioned above, the character movement speed is currently 1, that is subject to change if I feel like the game is too slow or too fast. Below is the image of the playable character.

