Algorithm:  
  
Goal: To create a space invaders styled game using p5  
Input: left and right movements for the player  
Output: 3+ rows of enemies that move downwards towards the player  
Steps:  
1) Setup function with canvas sizes  
2) Define variables for player and enemies  
3) Finding the core components in this program:  
 - an event listener for user keyboard inputs  
 - collision detection if possible  
 - reloading the screen when either the player dies or when all enemies are defeated  
4) Draw function with enemy and player’s shape properties  
5)  
  
Sources:  
<https://p5js.org/reference/#/p5/keyPressed> : onkey() events  
<https://www.toptal.com/developers/keycode> : L + R keycodes  
<https://codepen.io/Vitasa/pen/mROMBb> : collision detection  
  
Reflection:  
For this project, I started out by looking into what’s needed for registering user inputs for left and right for an onscreen object. The space invaders game’s main aspect is moving horizontally, so I decided this is what I will investigate first. I found the website linked in the source section where it shows the numeric character for every keyboard press. Then on the p5 resource website, I found the KeyPressed function and how it’s supposed to work. However, I spent far too much time alone than I should’ve and didn’t get too far into implementing collision detection for the player and enemy projectiles. The websites were useful in getting information I didn’t know beforehand, but I wasn’t exactly sure on implementation.   
  
What I could’ve done was focused on creating the base template of the game first. This would be creating an object for the player, the enemies, and the projectiles. Then I would start coding the movements for the player as well as the enemies, most likely a pattern-like movement for all of them at once. This would be a much simpler time than worrying about collision checking when I didn’t have the basics done first.  
  
There are a couple ways I would go about this in the future. Firstly, I was overthinking how I should go about this problem when I didn’t have to. What I believed to be the key components of the program (the keyboard inputs and collision detection) I spent too much time looking into rather than getting the overall game to function. Given the opportunity to do this project over, I would focus more on creating the template of the game before worrying about its mechanics, creating the enemies first and their movement, then creating the player inputs and hitbox collision.