Requirements Specification

The problem we are working on is creating a modified splix.io game to be hopefully expanded to multiplayer. This game is intending to be a game in which the player expands their area by directing their path with WASD controls, and has to connect their path back to their previously acquired area in order to expand their territory. We are assuming that any area that is enclosed in between the path of a player will not be automatically acquired.

Requirements:

* Player loses when they run into their own unconquered path
* Player can acquire territory by moving across unconquered blocks and over their previously acquired territory
* Player loses if they run outside the grid
* When a player loses all of their territory is lost
* A player can defeat another player when they cross the unconquered path of the other player

Data Structures

* We will use 2D vectors to display the playing grid
* We will use a 1D vector to store the grid points of the player’s unconquered path

Functions

* We will prepare which grid points to go to in assembly, and then use C++ function to display the points to the screen
* We will need two main types of functions: Drawing functions and computational functions
* Computational: Check if any player crosses a path, determining where the next grid point for the player is based on their direction
* Drawing: Displaying the grid and any newly acquired path/territory, coloring the grid points

Pseudocode