For the gameplay of my project, I will have a player actor, a girl, take a ball from one side of the world to the other. The player character will have to avoid randomly generated objects,like rocks on the ground, a training dummy with predictable, up and down movements, and a defensive character whose movement is randomly generated mashed on user movement input. Each successful trip across the world will result in 10 points for the player. The opposing 'team' will be awarded 10 points if the user is successfully stopped by making contact with an obstacle. The closer the user gets to 50 points, the more challenging the game becomes, either more obstacles or more challenging obstacles. The defensive character will move somewhat randomly. The first to 50 points wins the game. Movement of the player actor will be dictated by user input, 'w' to move up, 'a' to move left, 's' to move down, 'd' to move right. If the user gets to 50 points, they will be congratulated with a winning screen. If the opposing team gets to 50 points, the user is given a game over, you lose screen.

I think "Dribble Hero" makes a great name for a soccer based game, where the goal is to dribble the ball through obstacles to get to the other side of the 'field'. I believe this is more of a game than a simulation, but I think it has qualities of both.

The player actor will be played with girl1.png from the Greenfoot library. Her movement will be dictated by user input as described in the opening summary. She will start each round of play at the right most of the world, and the goal will be to use user input to get to the ball, then to 'dribble' the ball across a 'field' of obstacles to the other side.

The ball object, represented by the purple ball, ball.png, from the Greenfoot library, will be randomly generated each round of play on the user half of the world, with a minimum distance from any rocks or other obstacles to start the round. Once the user makes contact with the ball, they move as one object. If the ball makes contact with an obstacle the opposing team is awarded points. If the ball makes contact with the far side (right side) of the world, the user is awarded points. When points are awarded, the world is reset and a new round of play begins.

The rock obstacles will be randomly generated at the start of each round of play. The closer the user gets to 50 points the more rocks there will be in the field of play. If a rock makes contact with the user player or with the ball, the opposing team is awarded 10 points and a new round of gameplay begins.

The training dummy obstacle will be represented by the orange ppl3.png in the Greenfoot library. It will move up and down in a linear fashion along a fixed axis. The speed the obstacle moves at will increase the closer to 50 points the user gets. If the training dummy makes contact with the ball or the user character, the opposing team is awarded the points for the round. The training dummy is not affected by rocks in its path, and when it makes contact with either the upper- or lowermost border of the world it will be redirected 180 degrees to continue its path.

The defensive character, represented by the person.png avatar in the Greenfoot library, will have its movement randomized using the user movement input. The user input for movement will define the range of the turn for the defender. Neither the rocks nor the training dummy will affect the defender. If the defender makes contact with the border, they will be turned 180 degrees. If the defender makes contact with the user character or the ball, the opposing team is awarded the 10 points and a new round of gameplay begins.

GitHub Link: https://github.com/hsonneborn369/CSC170