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CS 4730-001

CS 4730 - Prototypical Document

The game project our group decided to do is Classroom Heroes, a game with a similar structure to Gallaga. The twist is that the objective is to protect a set of friendly units. The game has multiple levels and each level has multiple stages. As stages progress the level becomes more difficult. The boss uses different mechanics to shoot at friendly units. The boss will also throw out tokens that the player can use to trigger different power-up's. The boss may also summon random units to fight on his behalf. Eventually, as the game progresses, different bosses are introduced. At the end of each stage, the user gains a certain amount of experience based on the number of his friends saved. This results in leveling up between stages. As the user levels up, stat points are gained which can be used to increase movement speed, token magnet range, health, damage resistance, etc. At the end of the game, the user is given a certain score based on final level

For our specific prototype, we focused on creating a very basic framework of this game. We began with the main sprite, which will serve as the user that the gamer will play as. Our user, as of now, is a girl sprite that can walk around the screen with the proper animation. This sprite is also configured as a top-down sprite, making it look similar to a sprite from any of the Pokemon games. Some tweaking needed to be done on its hit box because the original positioning was slightly off from what we wanted for our user. The game user has a net that is used to catch certain objects that are thrown at the user. In order to be able to catch those objects, it is necessary to create a hitbox that will sit directly in front of the user image. This way, when the user swings the net in the area in front of it, the hitbox will be able to detect if a thrown object that is collectable is there or not. We also had to change it so that the hitbox would be set up this way for every direction that the user was facing. The throwing of our net is displayed in the screenshot below (see Image 1).

Image 1. The main sprite being used as user character

Another function we wanted to include was a very simple boss. For future levels, the boss may have more functions (such as the ability to move around the top of the screen). However, in the case of our prototype, we wanted a fixed position where projectiles would be thrown down towards the user. These projectiles will throw out different projectiles (missile-like

weapons, tokens, fighting units, etc), but the prototype will just deal with randomly generated projectiles of the same type. We plan on implementing all of the different projectile types for the alpha stage. As of now, the focus stands on getting the projectiles to shoot in random directions towards the user.

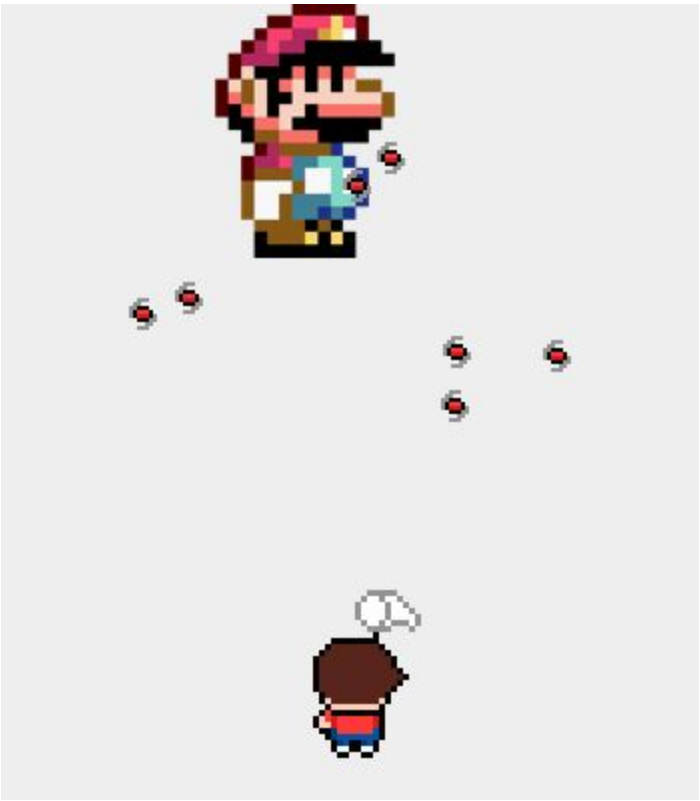

Image 2. The boss (Mario as of now) & its projectiles

Overall, our prototype focused on the main functionalities with the user sprite and the boss sprite. For the next stage of our project (the alpha stage), we plan on putting in more functionality with these sprites. As of now, we just want to be able to give a visualize aid of how our final product will come together. Thus, our prototype for the week is useful as a starting point for our alpha and as a way to bring together all of the concepts that we wish to implement in our game soon.