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Weekly Report 4: Senior Design Project

This week started off with a couple of pretty big milestones. For starters, I successfully implemented a very basic AI system for my basic enemy, and I also found very helpful tutorials that will help me implement my ground checker, my 2D shooting for projectile weapons, the prefab issue I was having with my enemy spawner (where after destroying the initial enemy in the game scene, no more enemies will spawn), and a few other things. I was then planning to implement the other forms of enemy for my game so I can start working on the levels for my story mode, collectable power-ups, and possibly procedurally generating scenes for my survival mode. However, these milestones were followed by fairly crucial setbacks because fixing the prefab issue with my enemy spawner ended up altering the functionality of the AI implemented in both types of enemies that I have created for my game. I am quite confused as to how this happened because fixing the issue with the enemy spawner did not involve altering any code whatsoever. For the current state of the flying enemy, when the player enters its field of view, the 2D pathfinding activates. However, the flying enemy only navigates to the initial location of the player and does not follow the player ever again after that. I do not believe this should happen because my 2D pathfinding function is called from the first frame and every half second after that so the enemy should be continuously following the player. As for the current state of the basic enemy, when the player enters its field of view, the player should move in the direction of the player's position and stop when it gets just short of the player. However, after my setback, now when the player enters the basic enemy's field of view, the basic enemy only moves to the right and stops its movement at the same spot every time. Figuring out how to fix these problems is my number one task currently. The other issue that I am stuck on is the basic enemy health system. I don't know why, but when the player lands an attack on the basic enemy, it shows up in my debugging log that the player has successfully landed the attack on the enemy, but the basic enemy never loses health when it should be decremented 20 from its health with every successful attack. This is another urgent task that I am working to figure out and solve, but this is much less urgent than the issue regarding my enemy AI.

<u>Milestones for the near future (by week staring from now):</u>

*I realize that I do not actually have a set plan for how I will get most of my game done. I just plan on getting done what I feel is possible and makes the most sense to do at that moment. From there, I will begin to piece the separate components together to have my final product. Here is a tentative list that I have so far:

1. FIX THE AI IMPLEMENTATIONS (number 1 priority).
2. Fix the basic enemy health decrementing system with each successful attack (number two priority).
3. Learn how to make a proper field of view for the AI entities (right now it works nicely but it's not quite how I want it to be).
4. Implement the enemy AI "patrolling" on platforms and areas.
5. Implement the player jumping ground checker (so that the player will only be limited to double jumping.
6. Add player health (this one will take probably just a few minutes).
7. Add the default weapon to the flying enemy that I have created (just a non-automatic projectile weapon for now).
8. Add the default projectile weapon to the player (I already have the default melee).
9. Implement the next form of enemy of the enemies list I created in my first week (second week of class), most likely just the shooting enemy.