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Weekly Report 4: Senior Design Project

This week I made an attempt to solve the AI problem I was having last week and it has actually proven to be a steeper task than anticipated; I thought of and tested a few different ways to solve the pathfinding issue, but none of the solutions I've tested have worked so far. However, I have not exhausted all my potential solutions and I feel as if one of them will actually work. For these ones, all I need is a few tutorials or Unity forum replies since I am not familiar with these methods, but due to my lack of internet access over this week I have not gotten much in the way of trying these last solutions. For the short time I did, I was able to compile a list of tutorials that will help me complete tasks on my milestones list such as the enemy patrolling, 2D shooting for enemies and the player, and the new implementation of my field of view. One of the main things that I did get done was the "prototype" ground checker that I wanted, this is only a "prototype" because it is only limited to a single jump where I want it to allow double jumping. And although I have not actually implemented it yet, I have a pretty solid plan for implementing the last 2 forms of enemy entities (the shooting one and the exploding one). These two, once I watch the 2D shooting tutorial, should be pretty easy to implement, given that I also fix the enemy movement issue I am currently working on. All in all, this week was another slow week coding wise, but I feel like I did a lot more planning and trying to solve problems to set me up for the very near future of development, so it was still productive. (The video attachment will not show much, but it will show that my ground checker works "properly").

[20240303_220826.mp4 (sharepoint.com)](20240303_220826.mp4)

Milestones for the near future (by week staring from now):

*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 that allows 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.