Zombie Tower Defense 47

Game of the Year Edition

There is a deep resounding problem with today's society. They don't play enough tower defense games. Specifically zombie tower defense games. We decided to fix this problem. A possible cause is that most zombie tower defense games are set up so that you are defending a static location. This can get borings because zombies end up moving down the same path all the time. Our solution is that now the location being protected is yourself. This both increases the motivation, because most people don't want to die, and the longevity, because now zombies are forever chasing you, a path of your own choosing. Basically just a better version of a tower defense game.

The objective of the game we made is to survive as many waves as you can. Surviving a wave consists of killing all the zombies in a wave without your health being reduced to 0. You have a weapon that you can use to shoot zombies and you can also create towers by spending money.

The impetus for this was it was a game that we all wanted to play. The first tower defense game, as we know it today, was Rampart in the 1990s. Before this there were only shooters and shield based tower defense games such as space invaders. The research we did was initially into various softwares that would allow us to extend things that already exist. A basic example of this is something called a tile map which basically divides the screen into a grid allowing us to check what squares things are in at different times. So if an enemy and a player are in the same square we know the player should take damage. This ended up being a pretty catastrophic failure. So we changed to use

another set of pre existing code that only shows the images but doesn't keep track of locations or collisions for us.

Thus we created classes to keep track of everything's location and interaction. We had to keep track of view objects that interact with each other. We did this with some pretty basic ideas. We kept track of everything that could shoot or do damage with a class called fighter. And everything that moved was kept track of with a class called mob for moving object. These were then on a team and they would only damage fighters on the other team.
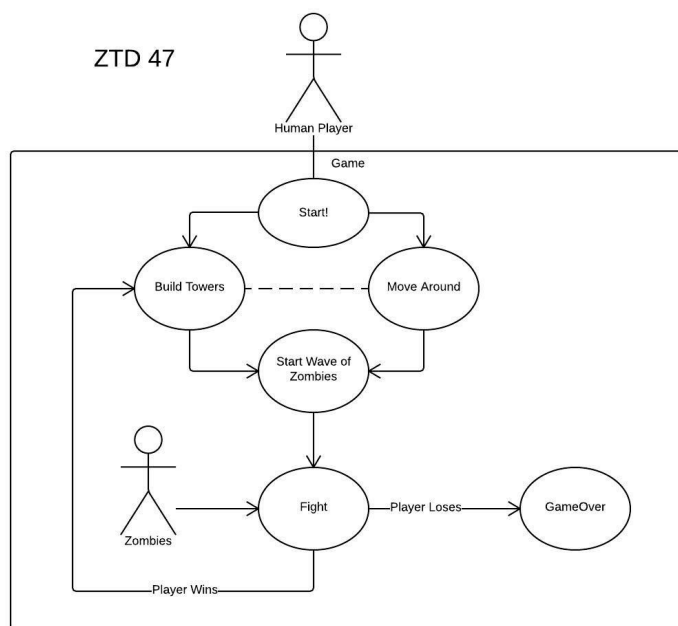
One middle level example of a user story, or a feature to add, was, "As a player, I want to be able to see how much money I have, so that I can buy new towers." Then we made a diagram of different possible places we would be at for this user story.

The stick figures are players that would interact with the system. Zombies aren't actually players but we thought about making them players if we instituted multiplayer so that's why they are represented as such. As per the Unified Modeling Language standard, each circle is basically a stage of the game a player could be in, and the lines are transitions. The important data to

keep track of here similar to what was said before are the moving objects, zombies, projectiles, towers, and the player.

Our project is extremely easy to use. The only caveat is that if you want sound to work you have to load a module before launching the file. Type module load ffmpeg/0.10.16 into the command line. But this depends on what computer you're operating on. Then run game.java. The commands are as follows: WASD are the move commands, click to shoot, click a tower button when you have enough money and click again in the game to place the tower.

So sit down. Strap in; and prepare yourself for the ultimate gaming experience.