Project Proposal

The goal of my project is to create the game Bloons Tower Defense 3 created by Ninja kiwi. The game will first start off with a splash screen containing different options. The two options will be to create an own map or to use a preexisting map. There will also be three game modes – Easy, Medium, and Hard where the speed and type of the balloons based on the difficulty. Each of the maps will have five levels, through which the user progresses through.

I will break this project into different tasks by dividing the game into several components. The first component is the balloons and the map. The balloons will travel across the screen based on the map. The second main component are the weapons that the user can choose when to deploy in order to fight off the balloons. The weapons will destroy the first balloon that enters the screen only if it is in the range of the weapon. The last main component is how customizable the game is. The user will be able to create their own map, choose their weapons, and choose what type of balloons they want in the game. The player earns money from popping the balloons. Based on how many balloons the user popped, they can earn money to buy more weapons to attack the balloons. There will be five total weapons that the user can purchase (dart, spike, freeze, sniper, and super weapon). Each of these five weapons have certain characteristics to help users win the game. Whenever a balloon exits the screen without being popped, the number of lives that the user has will be decreased based on the color of the balloon.

The trickiest part of the game is to ensure that all the user’s moves are legal and that the proper balloons are being destroyed at the right time. To ensure this runs smoothly, I will make sure to create coordinates of where the user can place the weapons and when they are allowed to place the weapons onto the screen. To make sure the right balloons are being popped by the right weapons, I will make sure to create functions finding the closest balloon.

Update 1:

* The user will not be able to upgrade the individual weapons, but rather be able to customize their speed if they choose to/ upgrade them
* Different levels will have faster balloons and more complicated balloons to hit
* Balloons will not be customizable

Update from TP1:

* Balloons appear on the screen (not following the path)
* Splash Screen and Game Over screen implemented
* Different levels implemented
* Users can select towers
* Score and Lives updated once balloons reach bottom of screen
* Collisions working (only with one tower)

Update from TP2:

* Balloons follow path and have different speeds based on color
* Users can place towers onto the screen on legal areas
* Towers can be upgraded which adds to their features (speed bullets, #bullets per time)
* Different types of bullets and balloons implemented
* Save users progress with files
* AI Component added
* Users can change the direction of shooting for individual towers
* Users can create their own maps (Full functionality not working)
* Different types of bullets have more/less damage
* Levels per game mode added
* Background music added/ Music during collisions
* Game flows much better, UI improvements, many bug fixes