APCS Final Project Proposal 2018-05-28

Final Project Proposals

This is a game similar to **Balloon Tower Defense**. The player will be facing waves of attacks from enemies and has to defend his/her base by creating and upgrading his/her machines.

Insert hierarchy here

- Enemy
 - Enemy subclasses
 - Diff instance vars (health, damage)
- Tower
 - Tower subclasses
 - Diff instance vars(damage, cost)

Insert features here

- 1. different levels/mazes for the enemies to travel
 - Each level is created in a .txt file using ASCII symbols
 - The file is read by the program and interpreted by the program
 - A visual representation is drawn in processing
- 2. Enemies use a path finder algorithm to traverse the maze
- 3. different defenses
 - Tower superclass
 - Tower types subclasses
- 4. Ability to upgrade defenses

Concepts used

- 1. Stacks and/or queues for tower creation
 - Priority for building towers
- 2. Priority Queue used to release enemies
 - Each round begins by creating an assortment of random enemies based on a player's score
 - These enemies are stored in a priority queue, where weaker ones are given higher priority

Insert to-dos here

- Create enemy class
- Tower superclass (stack of towers)

- Subclasses of towers

Insert timeline here