PROJECT 3 PROTOTYPE

Simple Defence

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Simple Defence is a game that can be played by one person or two. When playing alone, players will face their computers, and when playing with another, the two players will compete with each other. Overall, it will have an overly simple UI and straightforward rules to make this game easy and intuitive to play.

Each player (including computer) will be given a base that can be located near the edge of the window, and both locations will be on the opposite side. When the game starts, each player will have a counter with an increasing value calculated by the passing time or the frame. The counter indicates players' resources, and they can use it to buy different kinds of "soldiers" to attack the competitor's base. Five kinds of "soldiers" can be purchased, including a circle, a rotating square, a circle that shoots bullets, a circle that explodes, and an over-powered square. Each kind will cost differently, and the more powerful it is, the more expensive it will be. To win the game, the player must protect their base and destroy the competitor's base by using these "soldiers" mentioned above.

All the objects in this program will be created from an individual class. The Base is a class that can produce other objects of different classes. The Soldier is a mother class for all the other Soldier classes, like the Circle, the Square, etc. The Bullet is a separate class for the CircleShooter. All the Soldiers will be stored in an array or more, and by using loops, they can interactive will each other in real-time. Some of the mechanisms will be similar to Project 2. Sound effects will be custom-made for each Soldier object due to their unique behaviours. One or more (possibly) background music will be produced for this game. Images may not be needed for this project since every object is based on simple shapes. However, some UI elements will use images, like maps and UI shows which button to press to buy a certain soldier.

Each Soldier object will have a tracking mechanism. When there is no enemy, the Soldiers will target the enemy base, but if there are remaining enemies, the Soldiers will try to eliminate them. Some Soldiers need to get close to the enemy to harm them, and some will keep a distance. The CircleShooter will target the nearest enemy and shoot projectiles (Bullet).

