Homework 1

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1. Problem Domain

Outline:

- Context

- Problem

- Solution

2. Scenarios

Downloading the game, the user can navigate through the menu to begin a new game, view statistics, and adjust settings. If the user begins a new game, they are dropped in a scene and immediately are accosted by white enemies. The user's weapon can fire white lasers. Once the user has dispatched the enemies, a new swarm arrives. These enemies, though, may be of a different color, or may be mixed with the previous color. The user will have to switch between colors to dispatch like-colored enemies. From time to time, the user may find a power-up that will help them to live longer.

3. Functional Requirements

- The player can navigate a menu to start a new game.

- The player can navigate a menu to view highest statistics.

- The player can begin a new game.

- The player can fire a weapon with different color lasers.

- The player can kill an enemy with a like-colored laser.

- The player can lose health if an enemy reaches/attacks them.

- The player can die if they lose all of their health.

4. Non-Functional Requirements

- The menu should be simple for the user to navigate.

- The game should run fast (fast enough not to be aggravating.)

- The enemies should clearly display their color.

- The controls should be simple for the player to learn.

5. Target Environment

- The user should be able to play the game if they have Python installed.

- The game will run using Python3.6, which will also be the development language.

- The game will use the framework, Pygame.

6. Deliverables and Deadlines

- The over-arching design of the game will be due on ...

- The menu will be complete for user testing on ...

- The game interface will be complete for user testing on ...

- An README with installation instructions will be done on ...