15-112 Project Proposal for CMU-Q

1. Description:

A game where the player tries to defeat different waves of spaceships that will approach him through the game. The player controls a rocket that can shoot enemy spaceships. During the game the spaceships might drop certain power ups for the player to take like an increase in health or an increase in the intensity of the laser the player uses. After some number of waves, the player will face a boss level where he gets a bigger spaceship that is stronger and has more health. During the game when the player hits some spaceships they might drop some of their destroyed parts that might hit the user and reduce one of his lives (the number will be chosen later on based on the difficulty of the game). The player wins the game after defeating the final boss who will be designed to be challenging (for the average player).

1. Implementation:

For this project I will be implementing the pygame library for the graphics of the game and the random library for the drops of the powerups. Using these I will implement the features described above.

1. User-interface:

In the beginning of the game the player will see a start button and a button for the instructions and a button to quit the game. The quit game button exits the code and the start button starts the game. The instruction one tells the user how to play the game and the user will move the rocket using the arrow keys and fires the shots using the spacebar.

1. First milestone:

For my first milestone I will load the interface of the game and all the objects that will be used for the game namely the spaceships and the rocket (All the graphics but the game will not run).

1. Second milestone:

I will give the complete game as described above with all the features that aren’t in the first milestone. Meaning that I will load all the waves and the player can attack the spaceships. With a counter for the number of lives and the score.