Amit Nemani

IGME 202, Section 4

**\*\* USING GRACE PERIOD FOR ASSIGNMENT \*\***

Assignment:

Asteroids

Description:

This Project is a replica of the classic arcade game “Asteroids.” The game’s playstyle is nearly identical to the original but has been updated to include a “Touhou Project” theme. The goal is to shoot as many “asteroids” as possible and get the highest score without losing 3 lives.

User Responsibilities:

Game:

UpArrow Key to move

LeftArrow Key to Rotate

RightArrow Key to Rotate

Spacebar to Shoot

Menu:

Up arrow and Down Arrow allows you to navigate the initial menu screen.

Enter or the Return Key allows you to select the appropriate menu item (indicated by the ying-yang icon)

Esc Key quits the application

Game Over:

C Key restarts the game

Esc Key quits the application.

Above and Beyond:

* Everything in the game has been given a sound effect (navigating the menu, shooting the bullet, dying, destroying asteroids, etc.)
* There’s a menu to navigate although it only has 2 options to either play the game or quit the game.
* Aesthetically it should look more interesting that the original asteroids.

Known Issues:

* Collision between the asteroids and the bullet do not use custom made collisions. They use Unity’s built in Rigid Body 2D system. I have included the code for the collisions and they do work if they are uncommented but the issue is that for an unknown random reason, when the bullet collides the game has a random chance to create the 3 split asteroids or run the code a few more times to initialize more than the intended amount. I have tried hitting the asteroid in the exact same place over and over but it’s never consistent. My idea is that on the first frame that it hits an asteroid, it runs and then destroys the bullet but on the next frame the code sometimes things that the bullet is still there even though it has been destroyed on frame 2. If it even makes this mistake, the next few times that it hits smaller asteroids the code runs multiple times no matter what. I could not figure out a solution to this problem so I used the built in collision system so that the game runs and is optimal.
* At certain times the game will spawn asteroids right on top of your character and cause you to instantly die (because the code checks on frames 1, 2, and 3 which reduces your life total to 0 during those frames). This is also an issue if you were to die to an asteroid, go to your spawn point and an asteroid was waiting for you there.

Credit:

* Title Music: *Jynx – Love Banquet ~ War Record* 
  + <https://www.youtube.com/watch?v=GZg8cgC_vg4&t=649s>
* Game Music: *Kaeidzuka ~Higan Retour*
  + <https://www.youtube.com/watch?v=jlkOtGh5AbU>
* Title Menu image: <http://www.wallpaperup.com/uploads/wallpapers/2013/12/14/195652/big_thumb_d41ea363a315f4bc6d37fe21427690b6.jpg>
* Game image: <https://www.youtube.com/watch?v=Ho6NLEJhPEo>
* Reimu Sprite: <http://spritedatabase.net/files/pc/2366/Sprite/reimu_nikki.png>
* Yang sprite: <https://en.touhouwiki.net/images/c/cf/Th05Yin-YangOrb.png>
* Ying Sprite: <http://ih0.redbubble.net/image.27415198.4042/sticker,375x360.png>
* Bullet Sprite: Made by me
* Sound Effects: <https://www.youtube.com/watch?v=1G7RFOuzTNI>