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IGME 202 – Section 5

Project 2: Asteroids – Documentation

**Description:**

This is a game meant to imitate the popular Asteroids game. This game is also inspired by the Touhou series of games, and takes some features and themes from those games to make this. In this game, you control a girl, and you fly around shooting down fuzzy balls until they all disappear. You fight an epic boss fight after beating two waves of balls, and if you beat it, then you win.

**User Responsibilities:**

There are buttons for the user to navigate to the game.

Once in game, the player has 2 movement types that they could change by pressing shift.

First is nonfocused mode, in which the up arrow accelerates the player and the left and right arrows steer the player in that direction. The down arrow makes the player accelerate backwards.

Second is focused mode, in which the player will simply move in the directions of the arrow keys.

In both modes, space bar will shoot bullets, and the z key will activate a brief shield that make them invulnerable to damage for a short time.

The end goal of the game is to destroy all of the FOEs on screen, and eventually defeat the boss FOE. Do that, and you win!

**Above and Beyond:**

Okay, where to start…

Firstly, there are separate scenes for the title, game, and game over screens, complete with buttons that link to other scenes. Adding onto the buttons, there was just work with the Unity canvas, mainly for the dynamic life and shield icons, as well as the boss life bar.

With the actual game, there are different movement modes for the player character, inspired by the Touhou games. Unfocused mode has the traditional movement from Asteroids, with acceleration, deceleration, and steering, which focused mode draws from Touhou’s focused movement, where you face the same direction, move more slowly, and fires more bullets. As another feature, the focused movement uses a Touhou style hitbox, where the hitbox is a lot smaller than the rest of the sprite, which makes this mode more useful for the boss fight.

Another thing is the shield system for the player. When pressing ‘z’, the player is granted temporary invulnerability for 1.5 seconds. In addition, the player could do a last-minute shield if they input the ‘z’ key within half a second of getting hit with something, which will negate the damage, but take 2 shield charges instead of 1.

Lastly, there’s the boss, which has some custom bullet patterns for the user to dodge.

**Caveats:**

Boss health bar doesn’t properly go away when boss is not active, and one of the boss’s bullets (homing) isn’t in the right orientation.

**Notes:**

I’ll be using my grace period for this, since I went a little overboard with the additional features that I wanted to add. Is a little bit of a shame, since I’m only around 30 minutes late, but what can you do? Work added up, and I kind of panicked.

Sources:

Sanae (player character) sprite sheet: <http://gabrieldrawingsxd.deviantart.com/art/Sanae-Kochiya-sprite-443785295>

Sanae (Title and game over screen) sprite sheet: <https://www.spriters-resource.com/pc_computer/touhou123/sheet/29065/>

Background sprite: <https://www.spriters-resource.com/pc_computer/touhou123/sheet/26215/>

Life Icon: <http://touhougif.tumblr.com/post/42657519915>

Shield Icon: <http://www.woodus.com/den/gallery/graphics/dq9ds/shield/silver_shield.png>

Hitbox sprite: <http://i.imgur.com/5Dzrp27.png>

Bullet sprites: <https://www.shrinemaiden.org/forum/index.php?topic=1050.30>

Shield sprite: <http://spritedatabase.net/file/18089>

FOE sprite: <http://knowyourmeme.com/memes/foe>

The color alterations for the white and angry FOE are my own edits.