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IGME 202, Section 4

Assignment:

Project 2: Asteroids

Description:

This assignment is to recreate Asteroids in Unity, and to get similar vehicle movement, firing mechanics, and collision.

User Responsibilities:

The user will click to start the game, or right click to exit, on the start screen. On the game screen, they use the up arrow key to accelerate, and left and right to rotate. Pressing space will fire a laser in the direction the ship is facing and produce a noise. If the laser hits an asteroid, it will make an explosion noise and destroy the asteroid, spawning two smaller ones if it was a larger one. The game ends when all the asteroids are gone, or the vehicle has been hit three times. The ship being blue means you're invincible for a short time.

Above and Beyond:

- I made sprites consistent with the theme of an asteroid chase scene from star wars.
- Made sounds for shooting and exploding.
- Added music.
- Asteroids wrap.
- Press esc to exit while on the game scene.
- Added enemy ship that shoots bombs at you, speed of bombs varies with distance to player at instantiation.
- You win if you destroy the asteroids and enemy ship and bombs.
- Used Canvas to make interface.

- Start screen.
- Particle system for explosions, different ones for asteroids and ships.

Issues:

- It seems that when something is instantiated anywhere on the screen, and something it is supposed to collide with is in the exact center of the screen (where the ship spawns), the collision will occur. So if you don't move the ship, it will lose a life when the enemy spawns, and after the invincibility ends, it will lose another when an enemy bomb is instantiated, if you didn't move. Also seems to happen if an asteroid's center is in the center and you fire a bullet.
- If you die but a bullet hits an asteroid after, the game over message changes back to the score.
- Bug/Feature - Two lives lost when two asteroids hit you simultaneously.
- Used circular collision - it's not perfect but it works.

Notes/Sources:

The backgrounds of the scenes are edited images from *Attack of the Clones*.

The music is 8 bit duel of the fates from:

<https://www.youtube.com/watch?v=UQPMK-GowoY>

I made the rest with some inspiration from the asteroid field scene in *AotC*.