**Dan Singer**

**IGME 202, Section 02**

**Assignment:**

Asteroids

**Description:**

This is a clone of the Atari game, *Asteroids*. Movement with acceleration and velocity have been implemented for all moving objects in the game, and collision detection was implemented from scratch.

**User Responsibilities:**

* Point and click to select menu items.
* Left/A and Right/D to turn, forward/W to thrust
* Space/Left mouse button to fire.

**Above and Beyond:**

* Implemented 2 powerups which spawn at random time intervals
  + Invincibility
  + Rapid Fire
* Consistently designed Game Over and Main Menu screens with Canvas
* Custom sound effects created with FL Studio
* Gaussian Distribution for Asteroid spawning
* Thruster animation achieved by programmatically scaling from a pivot point with the help of the Sine function.
* Use of events to decouple code, and a well-designed component-based structure
* Game increases in difficulty over time
  + Asteroids will begin subdividing a second time after a certain number of points are scored
* Original artwork for everything except the font.

Sources:

* Open Sans font from <https://www.fontsquirrel.com/>