Team: BulleitHell

Project: BulleitHell

Team Members:   
*Bobby Belter*

*Cong Trinh*

*Garrett Rudisill*

*Jeff Walsh*

*Mike Berger*

*Slater Weinstock*

# Secret Feature

## **Overview**

The secret feature implemented, is secret feature B where bullets interact with one another(shown here: <https://youtu.be/LSvC0CsRlKY?t=56>). This will be accomplished via a Decorator pattern wrapping the Bullet class, to add additional functionality to the class while not changing the rest. The decorator will wrap a bullet factory and pass in the required parameters. This way the decorator can create the bullets needed for the functionality displayed in the video. The decorator will contain a function that returns this decorated bullet.

The reason that a decorator was chosen was to add the functionality of the secret feature without having to modify existing implementation. The goal is to utilize the existing factories without changing their functionality in such a way that the pattern’s implementation would be compromised.

## 

## **Changes**

This will not cause a major change to any of the overarching functionality of the Bullet class, but it will require the implementation of several new features

* New classes to implement the decorator pattern
* Change to the Final Boss’ Shoot() method to support secret feature behavior
* DecoratedBullet class will have to be modified to collide with other bullets
* Bullet implementation will have to be modified to support dynamic bullet speeds
  + This will take the form of a new function that can change the speed of a bullet
  + There will also need to be a field that tracks the type of bullet