# REFACTORING REPORT

# Refactoring heroKill() method:

## **Unnecessary variables:**

#### #1

Initially, the heroKill() methods had a variable that was used to store the positions of the playerActor, the Hero, however, we realized that this variable, and even the way the variable was initialized, was not necessary for the code to work, therefore we got rid of it and instead used the getPosition() arguments directly in the methods used to create the collision hit boxes for the player in the heroKill() method.

Commit code: 9a8a93555e11377f963368ee745c4b546b56d8f0

### **Higher cohesion:**

### #2

Skeleton and zombies both had identical duplicate heroKill() method code in their classes, instead of having duplicate code, we decided to group it together as a method in the level class. Level class is the class that has the information about the location of the PlayerActor/Hero that the enemies both need, so it made sense to put the method there, and skeleton and zombie classes can both access the method from there.

Commit code: ccaf7dcf65c086a83aeb7c97013123a5c0d5afa4

#### #3

The sound played during the killing of the hero character was also isolated only to the heroKill() method in the level class now, therefore the importation of the sound library and initialization of sound variables was no longer needed in Skeleton and Zombie classes. This sound also only played once, when the game is to end and shouldn't play if another enemy bumps into the hero after the game has ended so a boolean gameEnd variable was added

to the level class instead of initializing an integer to account for this in the zombie/skeleton class.

Commit code: b70104ef157fc72e637fcdd6c79883cbb5508494

#### #4

Since our refactored heroKill() method is in the level class right now, instead of using another function to pass the hero's position into the argument as a method, we

can directly access the position of hero from the level class, therefore we can simplify the function arguments needed for heroKill() method.

Commit code: 99aa7ed5449efc36f64a8d155be3e1660f0070e4

# Refactoring getImage() method:

### **Poorly Structure Code:**

## #5&6

The getImage() class is poorly structured and hard to add new images for further edit. So, an array which allows the image can be loaded in a for loop. Now the code takes less space and will be easier to add new images of sprite or tiles. The first Commit code is about the edition of the Skeleton and the second Commit code is about the edition of the Zombie

Commit code: 449a4fd3ed9304f56f9e254f497b815996c56d64 Commit code: 84e6b70d89f0981ff902a98d0114134148766198

# **Bad/confusing variable names:**

# #7

While reading the code, We found some variables that are hard to read, like herokill, So we capitalize variable's names like heroKill and will be easier for reading and know what this function may be about.

Commit code: 19ae75c00fc0aa376ca23cfa42f6bf733b6dddd9