# Gladiator

# Overview

User chooses a class from the menu and is put in an area with monsters to fight. The user will be able to move and attack in the arena. Enemies will progressively get hard to kill and the game is over when the user has no more hit points. Each enemy killed will score 1 \* enemy level. So a level 1 enemy will score 1 point and a level 10 will be 10 points.

# Scenes Transitions

Menu

Battle

# Scenes

## Main Menu

Gladiator

High Score

Instructions

New Game

Quit

### UI

* lbl\_Title defaults to Gladiator
* btn\_play button starts a new game
* btn\_quit quites a game
* lbl\_high\_score shows the high score to the user
* lbl\_instructions shows how to play the game

## Game

### UI

* Hearts represents hits remaining before game over.
* Red smiley faces represent the other opponents sprites
* Blue smiley face is the user.

# Classes

## Gladiator

### Variables

* \_\_walk\_animation
* \_\_attack\_animation
* \_\_move\_speed\_x
* \_\_move\_speed\_y

### Methods

#### \_\_init\_\_

Parameters:

* none

set the \_\_walk\_animation to the gladiator\_walk\_sheet

set the \_\_attack\_animation to the gladiator\_attack\_sheet

#### process

Parameters:

* none

Check what key was press and do the appropriate action.

**A** – Left

**D** – Right

**W** – UP

**S** – Down

**[space bar]** – attack

## EnemyGladiator

### Variables

* \_\_walk\_animation
* \_\_attack\_animation
* \_\_move\_speed\_x
* \_\_move\_speed\_y

### Methods

#### \_\_init\_\_

Parameters:

* none

set the \_\_walk\_animation to the enemy\_gladiator\_walk\_sheet from assets

set the \_\_attack\_animation to the enemy\_gladiator\_attack\_sheet from assets

#### move\_enemy\_toward\_player

Parameters:

* player\_x
* player\_y

Calculate the direction vector base on the player\_x and player\_y compared to this position

update movement in that direction

#### Reset

Parameters:

* none

Variables

* spawn\_point – 1 of 4 spawn points on the map

generate a random number 1 to 4 and store it in spawn\_point.

If spawn\_point = 1:

set to spawn point 1 coordinates

elif spawn\_point = 2:

Set to spawn point 2 coordinates

elif spawn\_point = 3:

Set to spawn point 3 coordinates

elif spawn\_point = 4:

Set to spawn point 4 coordinates

#### process

Parameters:

* none

## MainMenu

Main menu for the game. It will show the best score, instructions, and controls the actions of the game. Allows you to exit and play the game.

### Variables

* \_\_command – holds the button press command defaults to play
* \_\_high\_score – holds the highest game score since launch.

### Methods

* \_\_init\_\_ - initialization of the MainMenu class.
  + Sets the high score
  + Sets the default command
* process
  + check if btn\_quit is clicked
    - set \_\_command to quit
    - stop
  + check if btn\_play.clicked
    - set \_\_command to play
    - stop
* get\_command
  + returns \_\_command to caller
* set\_high\_score
  + sets the \_\_high\_score

## Game

Holds the game mechanics.

### Variables

* \_\_score – holds the current score. Defaults to 0.
* \_\_lives\_left – holds the current lives left before the game is over. Defaults to 3
* \_\_total\_gladiators – holds the number of rocks sprites to create on the screen at one time.
* \_\_gladiator\_weapon
* \_\_enemies – holds the EnemyGladiator sprites created
* \_\_gladiator – holds the Gladiator sprite created
* \_\_lives – holds the life sprites

### Methods

* \_\_init\_\_ - initialization of the Game class.
  + Sets the score to 0 and lives to 3.
  + resets gem
* process
  + Check if \_\_gladiator\_weapon collides with enemy
    - play sound assets/damage.wav
    - adds one to the score
    - reset enemy sprite
  + Check if \_\_gladiator collides with enemy
    - play sound assets/hit.wav
    - substract 1 life from \_\_lives\_left
    - reset rock sprite
  + Check if there are more than 0 lives left. If there are 0 lives left return to main menu scene
* getScore – returns the \_\_score

# Milestones

* Create Main Menu Scene with background & buttons, title, highscore, instructions
* Create Gladiator sprite with walking animations, attack animations, and movement
* Create enemy gladiator sprite with one of 4 spawn locations and different speeds
* Add function to move enemy to gladiator.
* Add attack sprite and check collision with enemy gladiator
* Score System – for each enemy collided with attack sprite at to score.
* Health system – for each enemy collided with gladiator sprite.
* Persistent state for high score.