# Gladiator

# Overview

User chooses a class from the menu and is put in an area with other gladiators to fight. The user will be able to move and attack in the arena with a word. Enemies will spawn from the edges of the screen and will always be facing the player when they walk. When an enemy collides with the player, the player will lose a life. The game is over when the player’s health reaches 0.

# 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.

# Assets

assets/hero.png – gladiator-credits.txt

assets/enemy.png – enemy-credits.txt

assets/intro.ogg - <https://opengameart.org/content/dark-intro>

assets/hearts.png - <https://opengameart.org/content/heart-1>

assets/background.wav - <https://opengameart.org/content/boss-battle-music>

assets/sword\_sfx.wav - <https://opengameart.org/content/boss-battle-music>

assets/game\_over.ogg - <https://www.kenney.nl/assets/voiceover-pack-fighter>

assets/fight.ogg - <https://www.kenney.nl/assets/voiceover-pack-fighter>

assets/background - <https://designer.microsoft.com/image-creator>