



BILKENT UNIVERSITY
DEPARTMENT OF COMPUTER ENGINEERING

CS 319 - Object Oriented Software Engineering
Term Project Iteration 2

FIGHT OR FLIGHT

Final Report

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Group 1D

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1. Introduction

In Fight or Flight, there are two states which are “Flight State” and “Fight State”. When the game is started, player first encounters “Flight State”. This state is a running part of the game. Throughout the level, the player will run. As time goes by, player’s speed will increase. Also, there will be some obstacles. In order to avoid these obstacles, player will control his character by using keyboard. If player dies at some point in this level, the game will end. Player who does not die at “Flight state ” can move to “Fight state ”. In fight state moving area of player character is limited. Player has to encounter waves of orcs, undead and bosses that comes in waves. At the end of each wave player has two choices that are going back “Flight state ” or continue fighting. To gain more points, player should fight against waves more.

In general, the goal of this game can accumulate points while surviving as long as possible.

2. Design changes

Instead of having a MenuManager and an ObjectManager separately as described in our design report, we now have a GameStateManager which is the main controller object as it handles different states of the game. For instance, it handles the transition between the Menu and the Play state of the game.

3. Lessons learnt

During the implementation we learnt the importance of scheduling because we generally could not manage the time successfully. We wrote the big part of the code only in a single day.

4. User's guide

4.1. System requirements & installation

Fight or Flight is a Java based game and as such it needs a JRE(Java Runtime Environment) to be installed in the user's device. Minimum version required for Java is 9.0.1. Game is in .jar format so user only need to download it. Nothing else is needed for an installation and user can run the game as soon as download finishes. Executable file can be downloaded from the following link,

<https://github.com/sulunemre/BilkentCS319Project/releases/download/1/Fight.or.Flight.jar>

4.2. How to use

Software itself is pretty simple and user-friendly. Menus inside the game can be operated through simple point and click actions issued through a mouse. Game controls require a keyboard to be connected to users device. If player is in credits state, in order to return the main menu player can use "Escape " key. If player is in high scores state, in order to return the main menu player can use "Escape " key. "W" and "S" keys are bound to player character's movements. "W" key moves character upwards while "S" key moves it downward. In flight state if player wants to switch the game mode, player can use "TAB" key. In flight state by using "Escape" key player can return to main menu. In fight state if player wants to change the game mode back to the flight mode player can use the "Q" key. In order to shoot at enemies player can use the left mouse button. If player wants to kill enemies by using melee attack, "Space" key can be used.

Powerups



Lesser Mana Potion: This potion increases mana by 25.



Ashbringer: This legendary paladin sword increases melee damage by 25.



Lesser Health Potion: This potion increases health by 25.



Armor Box: Armor boxes contain two different armors:

Lightsworn Armor: Increases maxHealth by 75.

Increases damage by 25.

Judgement Armor: Increases maxHealth by 50.

Increases damage by 10.



Medium Mana Potion: This potion increases mana by 50.



Medium Health Potion: This potion increases health by 50.



Larger Health Potion: This potion increases health by 100.



Larger Mana Potion: This potion increases mana by 100.

Enemies



Abomination: A slow but deadly enemy that forces the player towards his own location by using his hook.

- Deals only melee damage.

- Melee damage: 20
- Speed: 2



Gargoyle: A flying creature that can shoot bolts at enemies.

- Deals only ranged damage.
- Ranged damage: 10
- Speed: 3



Grunt: A strong orc warrior that can deal moderate amount of melee damage.

- Deals only melee damage.
- Melee damage: 15
- Speed: 4



Skeleton Warrior: The most basic enemy with low amount of melee damage.

- Deals only melee damage.
- Melee damage: 10
- Speed: 7



Boss: An enemy with high damage and health.

- Deals both melee and ranged damage.
- speed = 1.5
- Ranged damage = 25
- Melee damage = 25

5. Screenshots

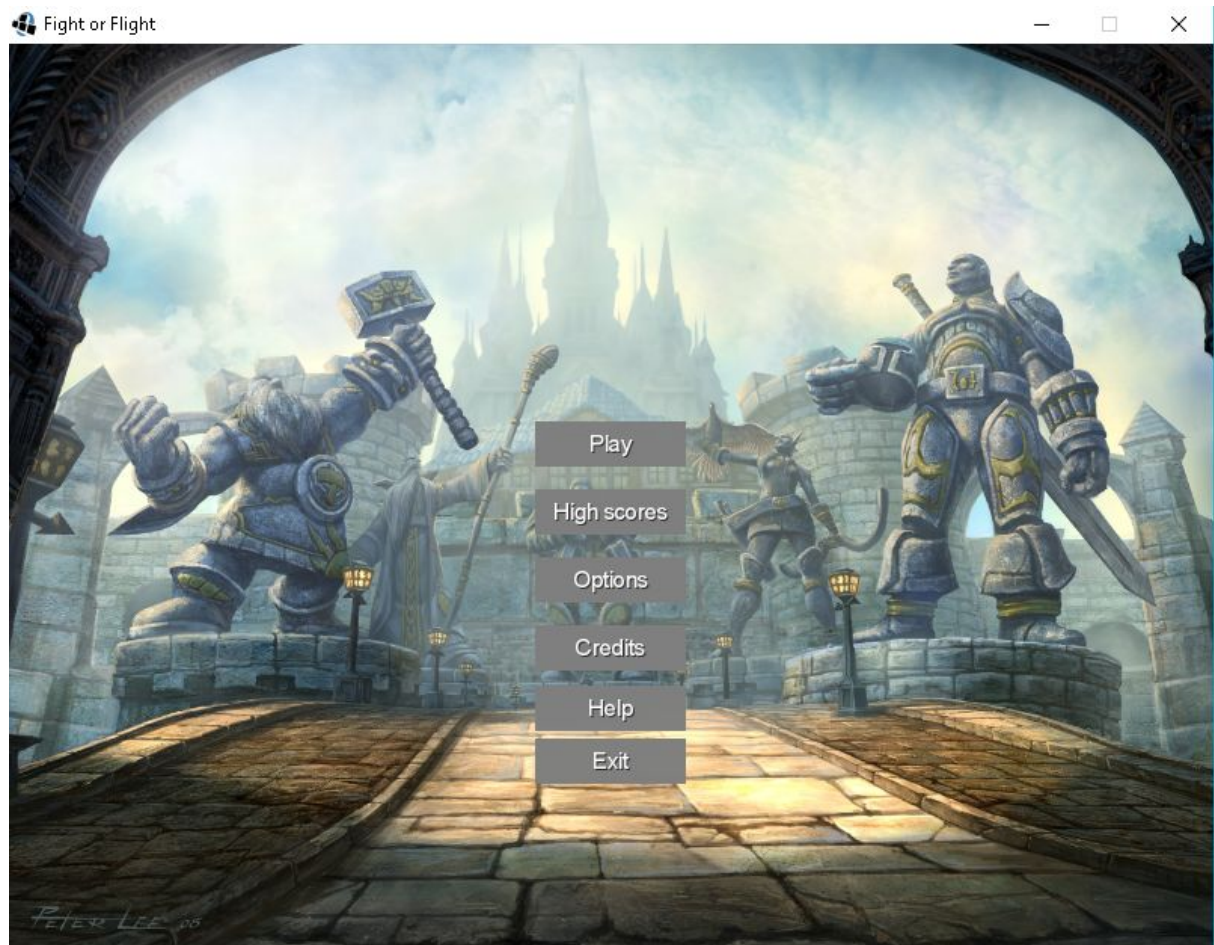


Figure 5.1: Main menu

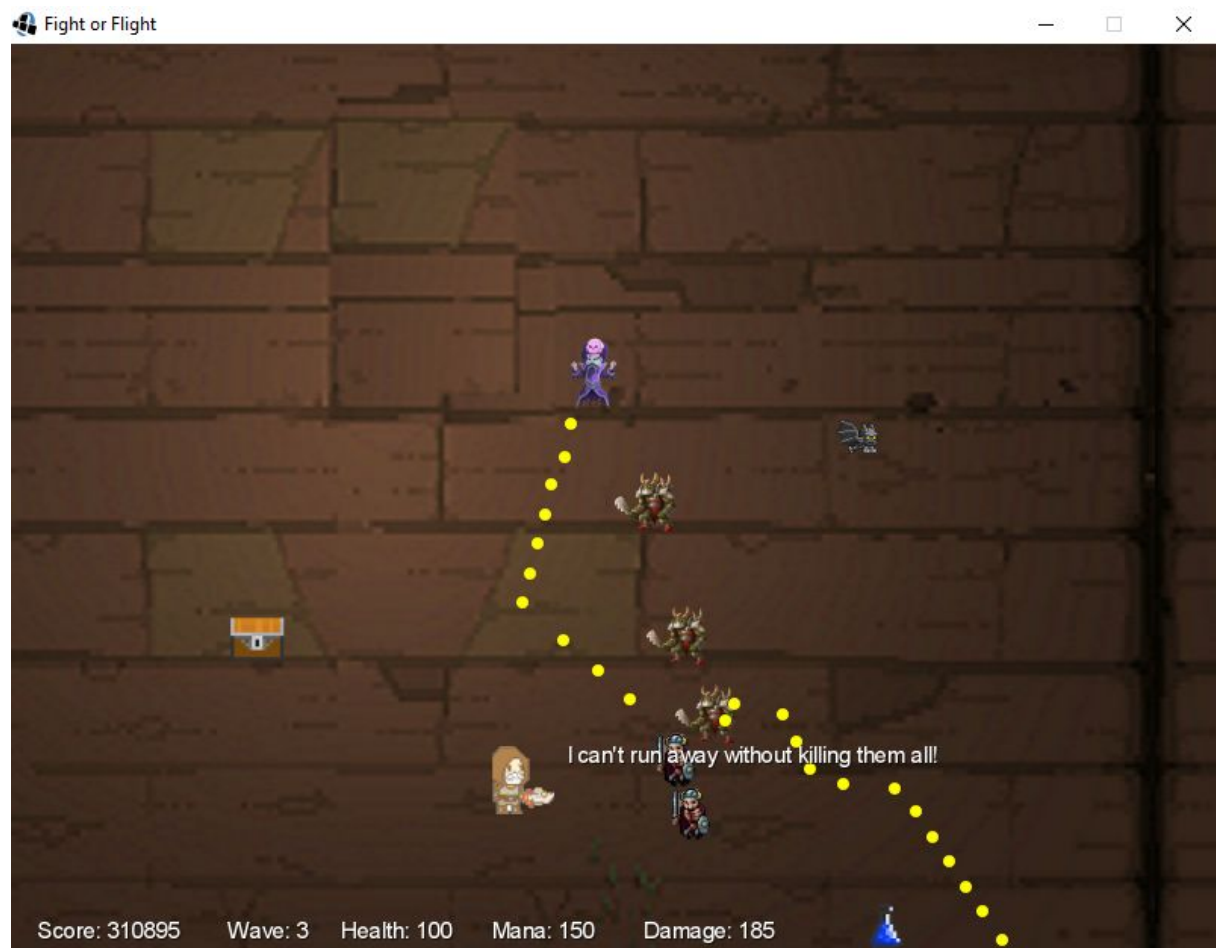


Figure 5.2: Fight state

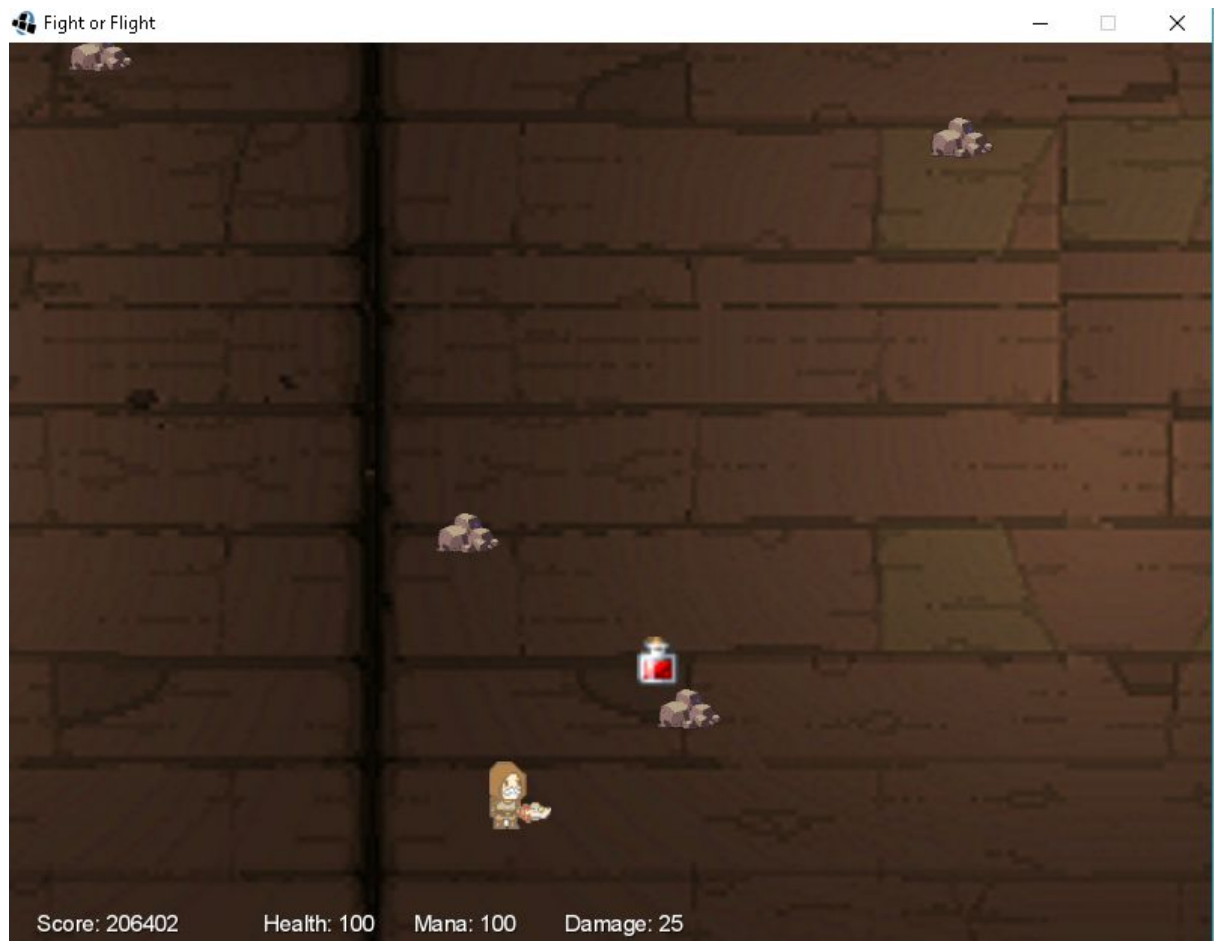


Figure 5.3: Flight state



Figure 5.4: Credits screen

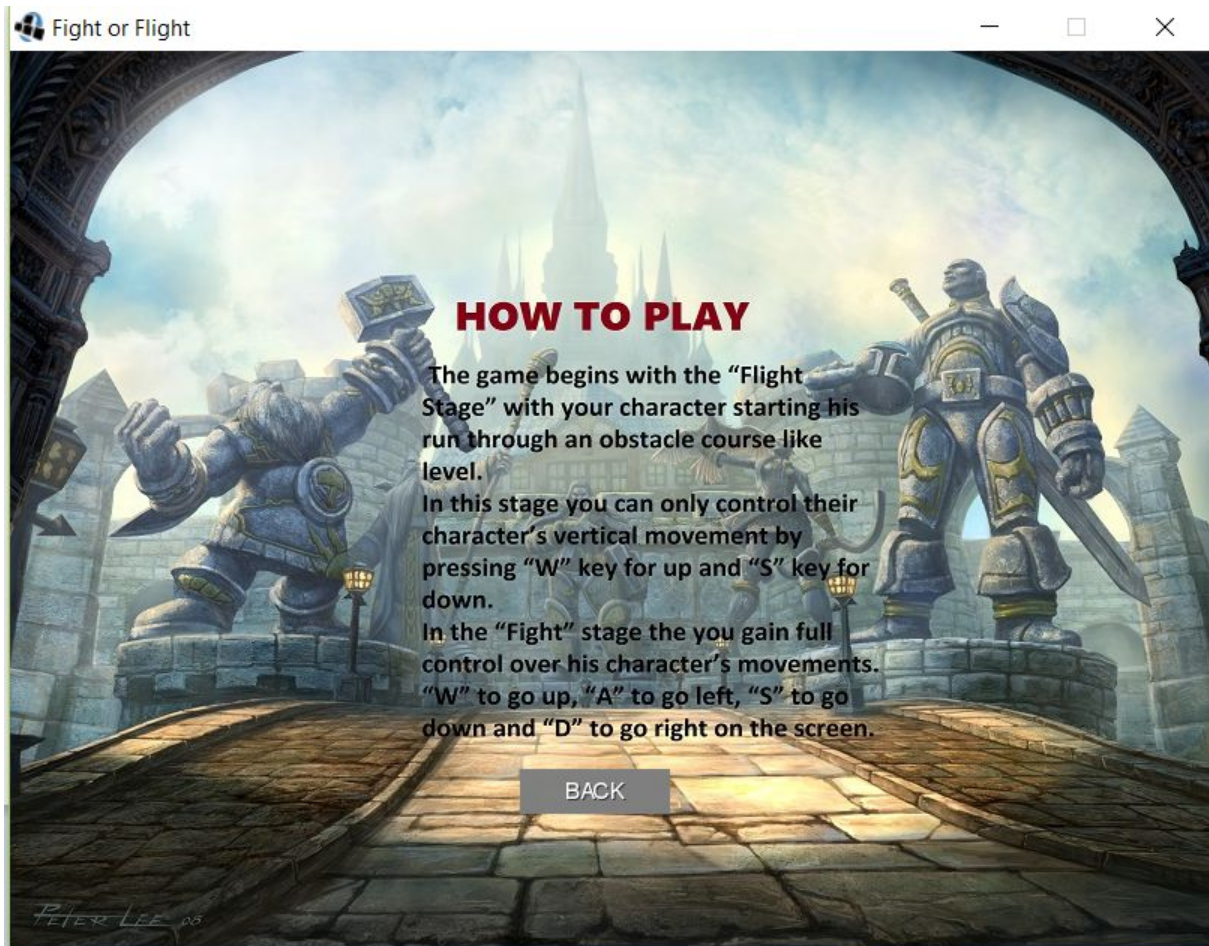


Figure 5.5:HelpState

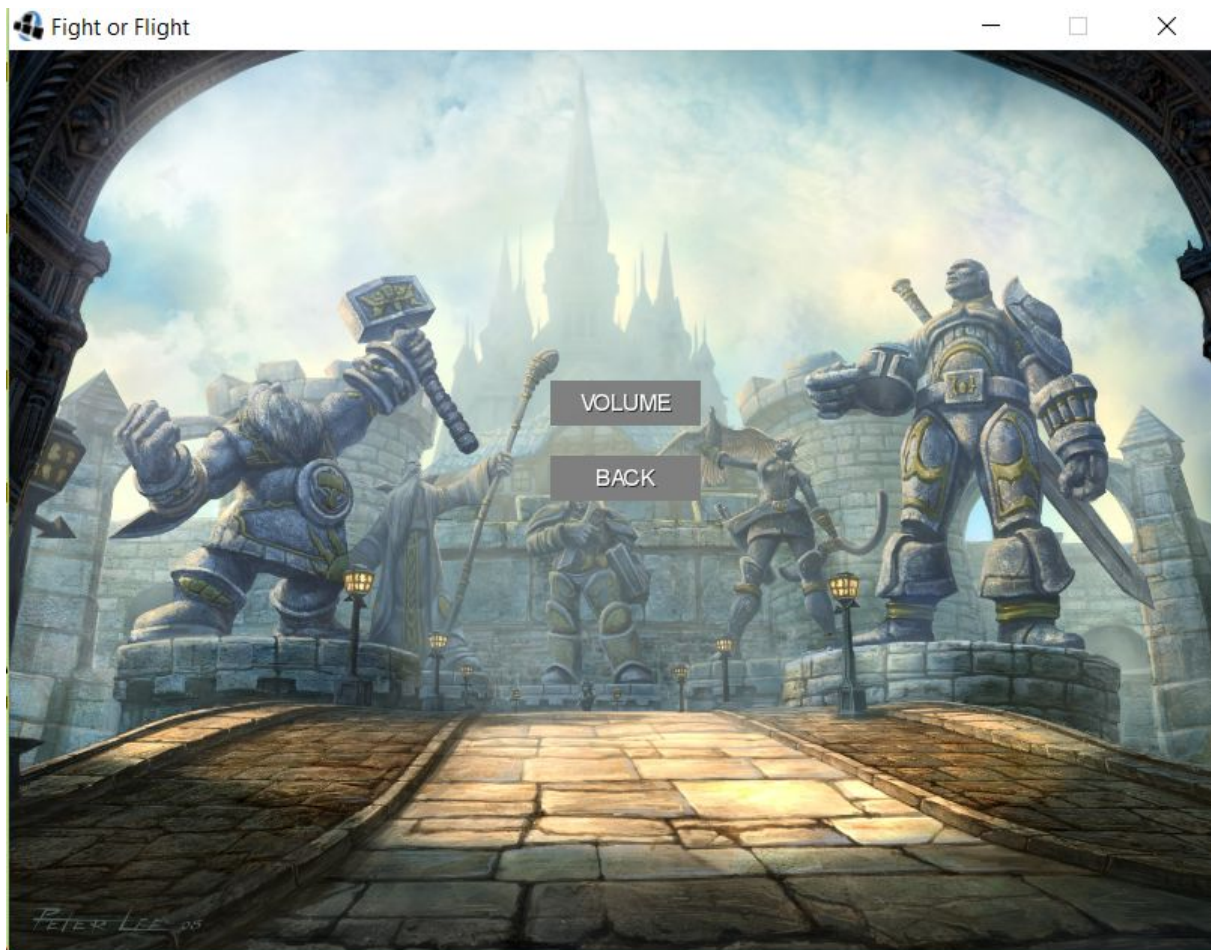


Figure 5.6: Options State

6. References

Bruegge, B, & Dutoit, A 2014, Object-Oriented Software Engineering : Using UML, Patterns, And Java, n.p.: Boston : Prentice Hall, 2014., Bilkent University Library Catalog (BULC), EBSCOhost, viewed 16 February 2018.