Bilkent University

CS 319
Object-Oriented Software
Engineering Project
Final Report

Section 1 / Group 1H

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1) Introduction

'Battle For Middle Earth' is an arcade game. The game starts off by displaying a map. In the map there are different checkpoints; each of these checkpoints represent a different level. The main object of the game is to reach the final checkpoint on the map. Within each level the user will begin the game at the bottom of the screen and the enemies will occur the top of the screen. The user can attack the enemy, likewise the enemy can attack the user. The user's health will be indicated by a health bar. In order to help the user in his quest there will be random drops. These power-ups are health boxes. This game will allows the user to play as different characters from middle earth such as humans, elf or wizards. For the demo we have 3 levels. For the first two levels the user will face off against normal orks(enemy). Finally in level third level the user will face off against the boss. To conclude, the player's score will be recorded and a high score system will be produced.

2) Installation

- Java Runtime environment must be installed.
- 1 GB of memory.
- Mnimum of 1280 x 720 resolution.

### 3) Playing The Game

3.1)Login Account/Create Account
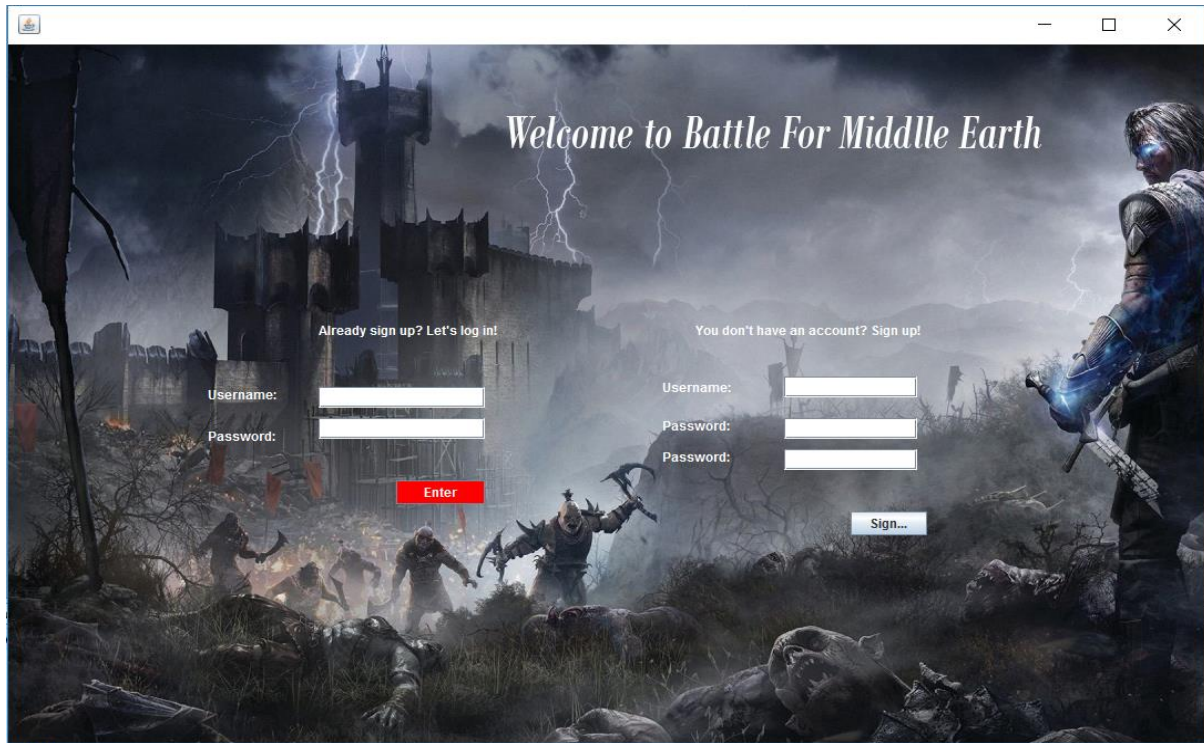
In the begining of the programme user needs to create his/her own account to sign in the game. This screen allows users to create their accounts and afer that they login with their accounts. The player is required to to enter his username and password in the respective field. Upon clicking the 'Create Account' button the user account will be created. Thenhe/she enter his account name and password in their respective fields then they are required push the 'Login' button to skip the next screen.

3.2) Menu
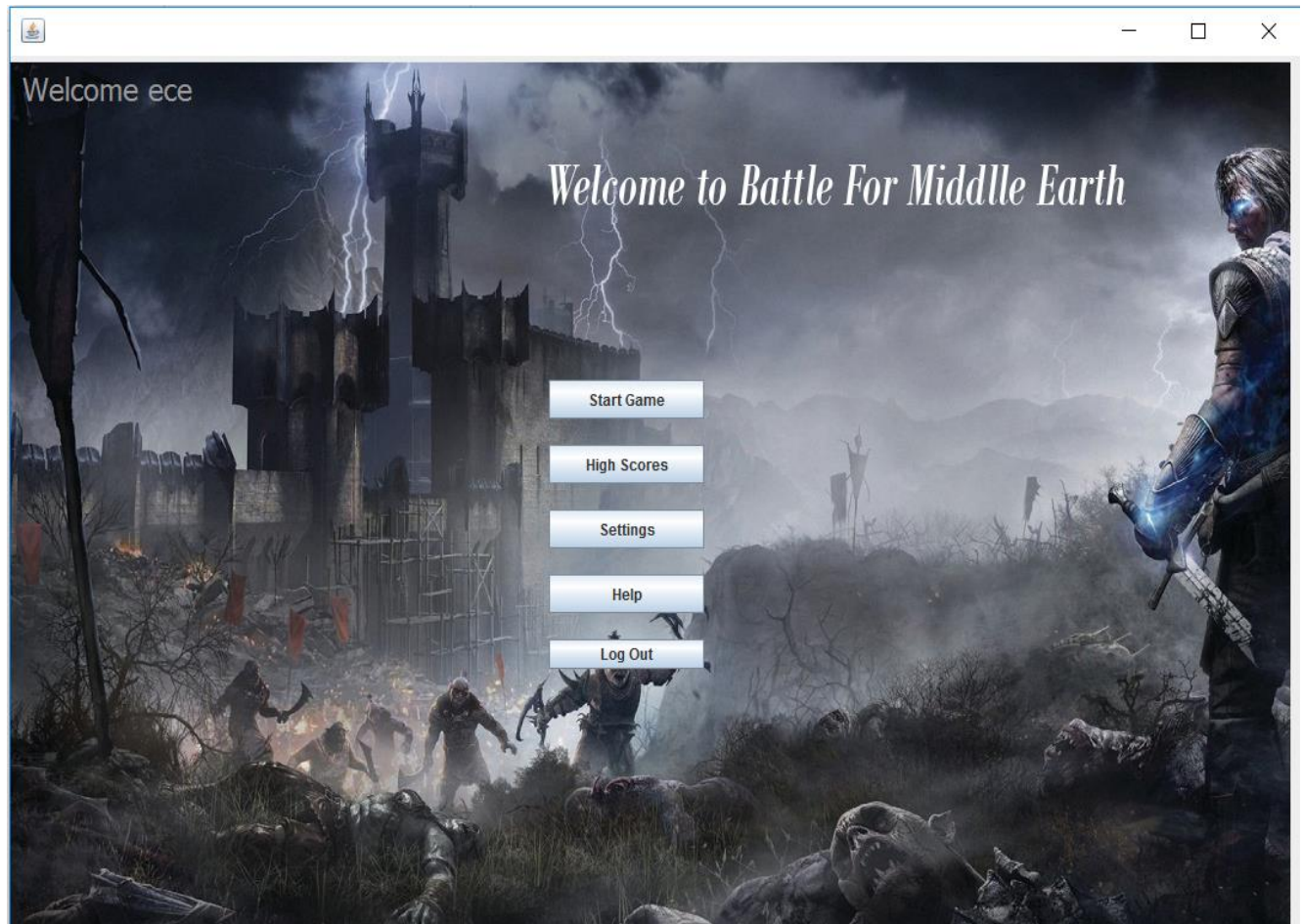
In this the user is presented with different options. 'Start Game ' will come up with the choose character screen. 'Help' and 'Credits' button will send the user to their respective screens. 'Settings' button did not implemented. 'Log Out' button closes the programme.

3.3) Help/Credits
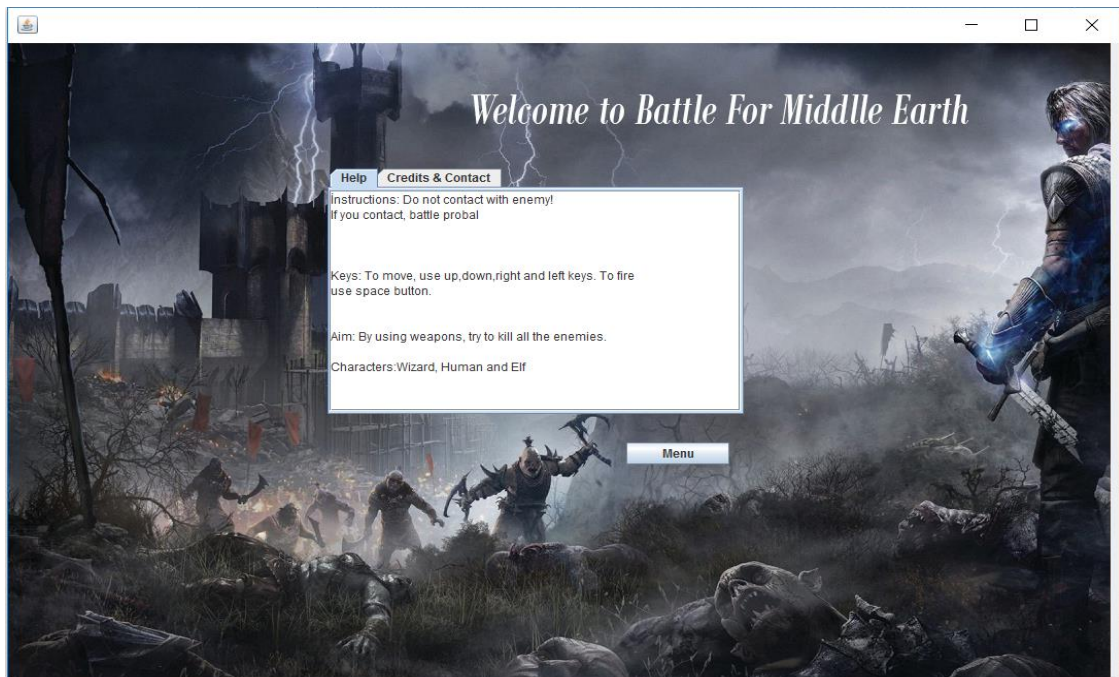
In this screen user encounter the help section which is explains how to play the game. When the user clicks the 'Credits&Contact' he/she is able to encounter developers informations. The users click the 'Menu' button to go back to main menu.

3.4) High Score
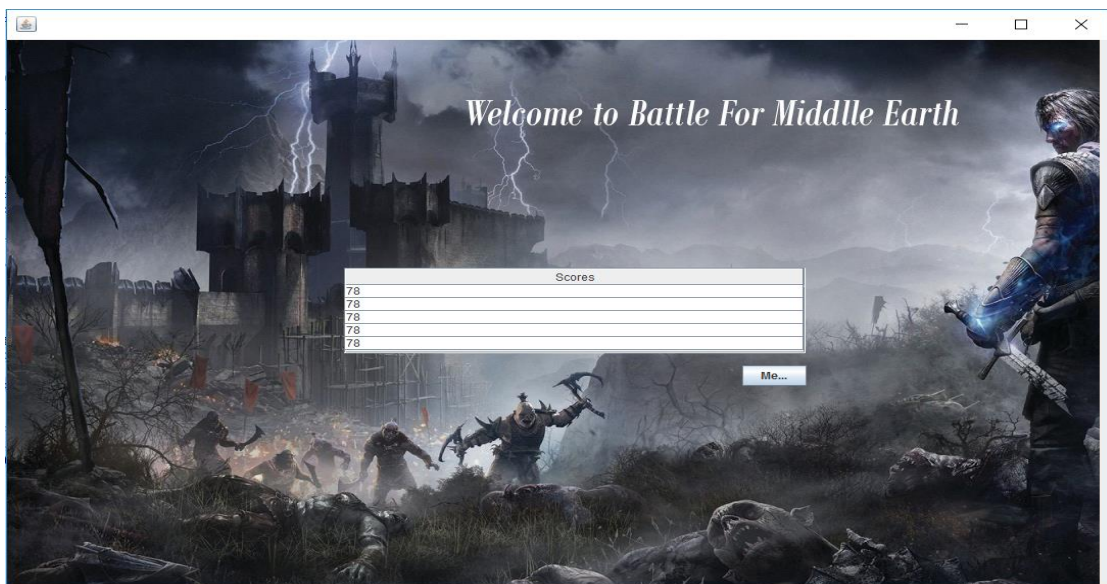
The users can see the high scores of the game in this screen. 'Menu' button allows going back to main menu.

3.5) Choose Character
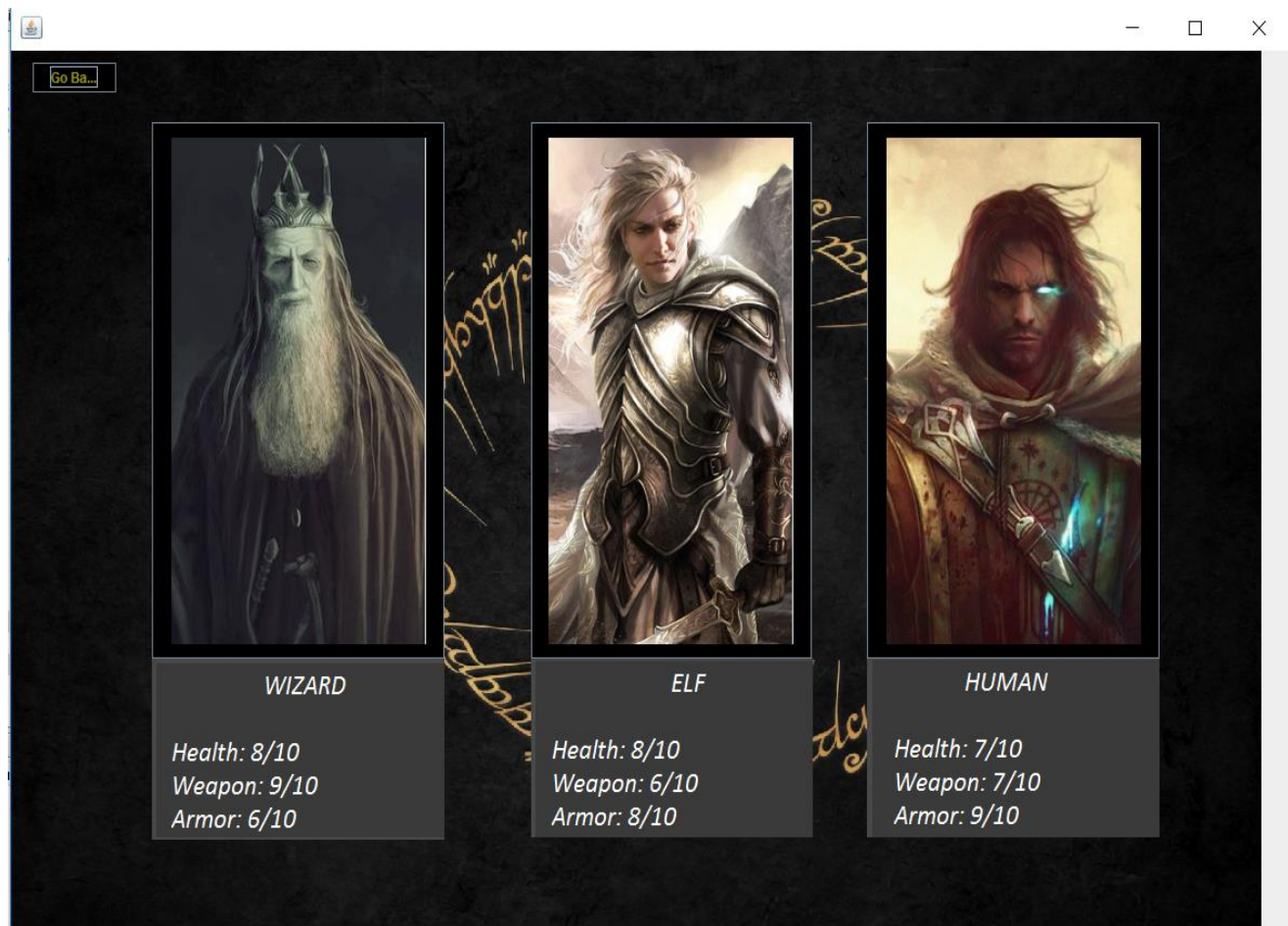
Three different characters are offered for players in this screen. These characters are from the middle earth theme. Players can choose whether they want to play as a wizard, elf or a human. Each of these characters will posses unique and special features which are shown below each of these characters. To choose a character user should click the specific character this. To go back to the main menu, player clicks the 'Go Back' button. When the player clicks a character the map screen will come.

3.6) Map

As seen above each level is presented by a checkpoint. The player begin from the first level and if he/ she can be able to pass this level the second level's will be unlocked and playable to the user. For the sake of demo we open all implemented levels. To go back player clicks the 'Go Back' button.

3.7) Game Screen
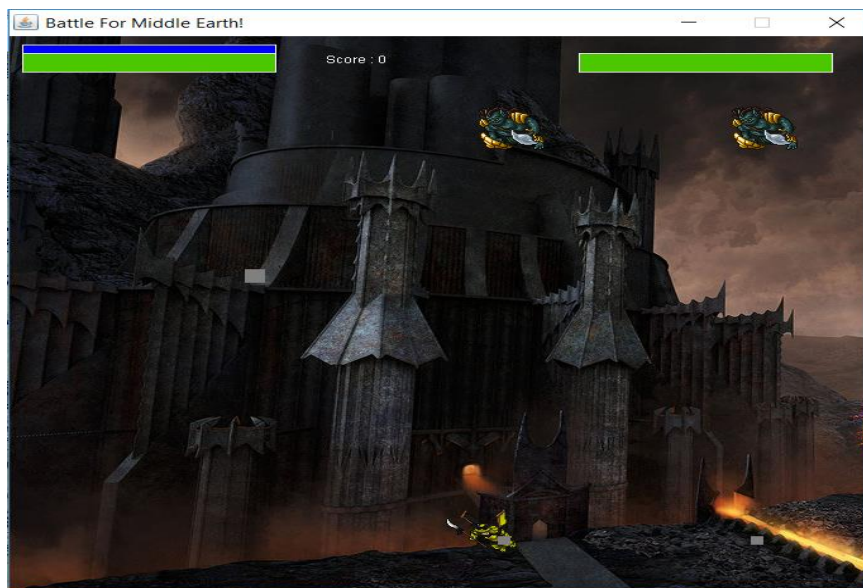
The character is positioned at the bottom of the screen and would be allowed to move in all direction, whicle at the same time allowing the user to shoot at the enemies. The enemies will appear at the top of the screen , who they begin to fire towards the player in a random manner.

3.8) Game Over
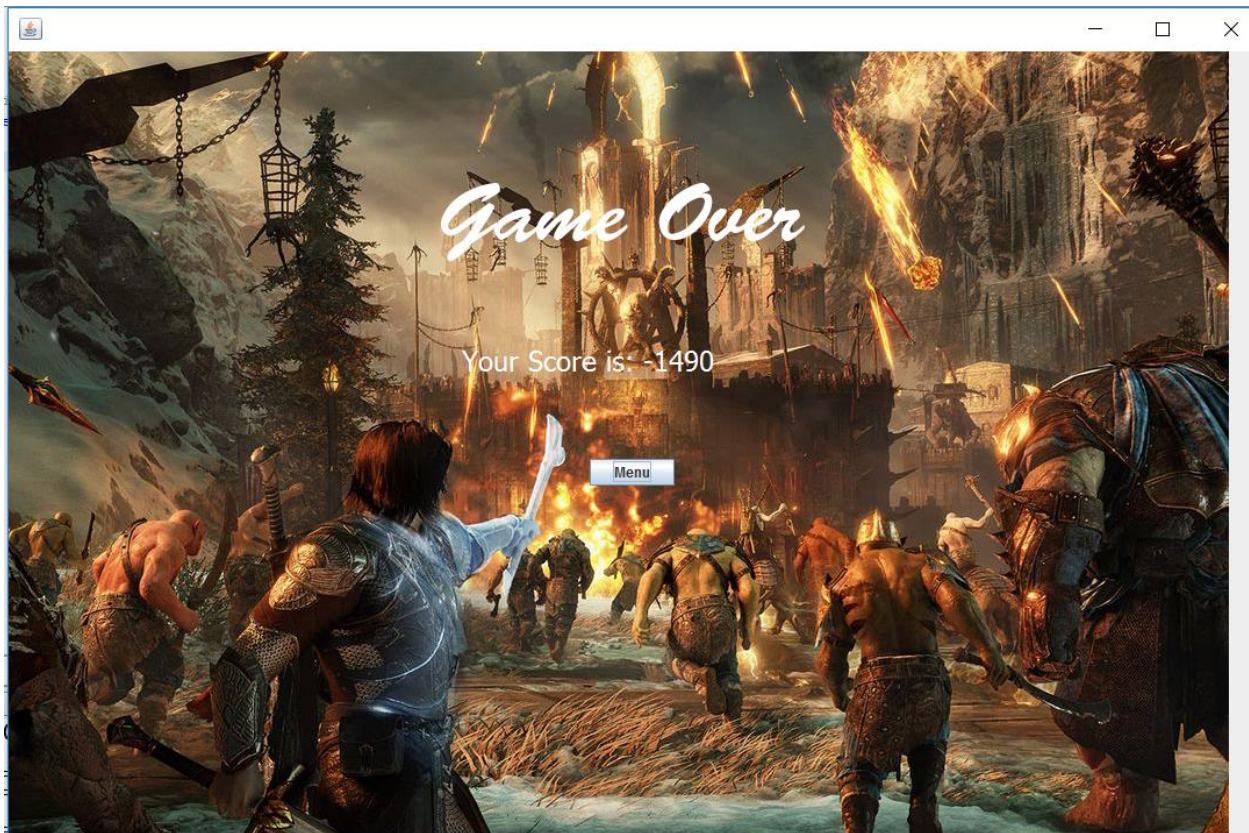
When the player's health is over the game over screen come up. In this screen the user can see his/her score. When 'Menu' button clicked the main menu will come up.

4) Non Implemented Specifications and Changes

Changes:

In terms of our implentation , we were originally stated in the report that we will use FX GUI library , but we implemented the project in swing. Additionally there were some changes to our UML diagram, firstly we removed the collision class and the player subclasses , such as Human , elf and Wizard. Instead of this , we included the functionality of these classes inside the 'Player' class. In addition in order to decrease the decoupling aspect we included the Façade class 'Game Object' class. Finally we also added a GameIDs enum type class to keep track of all the individual game attributes in the game.

Non Implemented:

·   We were not able to implement the setting menu of the game.

·   For this game we also were not able to include sound-effects / music

·   We also did not include the pause menu

·   Instead of a limited set of game ammo the user will enjoy unlimited ammo

·   In terms of Power up, we were not able to include Weapons upgrade.

·   There are no unique character skills.

5) Referances

- **https://www.youtube.com/watch?v=1gir2R7G9ws**

- **http://www.tomsguide.com/us/shadow-of-mordor-primer,news-19620.html**

- **https://tr.pinterest.com/pin/561050066053522724/**