



CS319 Object Oriented Software Engineering
Final Report

Lords in Halls

Group Members

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1. Introduction: State where you stand at the moment with the implementation

We implemented the database, which is our data pool, our server and our web pages. Our database's code can interact with the online database provided to create the users, store the scores and webpages, update the scores and check the user information(username-password). We finished almost all of the html part of our pages. We added images and buttons to those pages. However, their JSP code hasn't finished yet. Apart from database and html, our server can connect with our html codes as well. The links between the pages and database are implemented in server by using rest services and by help of spring framework.

2. Design changes: Describe any changes in the design and present high and/or level level design diagrams if needed

In our project, generally, we did not change and design structure. Even though it did not implemented exactly yet, there might be some changes in our view objects such as their extensions and implementations.

3. Lessons learnt: Tell us about your experience

During implementation of our project for first demo, we had to deal with many problems. The first problem that we encountered was storage and database problem. Firstly, we thought to implement it in local storage however, it would make our job harder because it requires to create local databases in all computer of us. Second idea was using global database providers such as DigitalOcean but there were many problems too. One of the problem was economic issues. In general, online database providers requires lots of money or they provide databases free without too much opportunities such as storage space. When we were searching free and worth database provider to use, we decided to use google firebase. However, it was not exactly database provider, there are many issues of using google firebase such as creating self database with JSON object. After that, we decided to use google sql which also didn't work for us. The reason behind of it was that we could not make the connection for an external machine to google sql. There were many steps and instructions but we could not make it. Finally, we found a free database provider which is named as "freesqldatabase.com" and "phpmyadmin.co" for our project.

Another problem was about server side of our project. We decided to use rest services and frameworks but we were not too much familiar with them. We lost many times by trying to use them without knowledge. We could, at first, try to learn them but didn't have too much time. Firstly, we tried to use "GLASSHFISH" as our framework but we could not make it. It took too much time from us. After it, we decided to use "TOMCAT", however,

again we could not make it too. We were not familiar with it and lost lots of time. We dealt many problems such as defining Artifacts, Facets, Modules, Servlets etc. In the end, we decided to use Spring framework as our framework.

While implementation of html pages, the design of the pages were the main issue. We learned how to create nice looking web pages and User Interfaces. After each page is implemented, we take all team members opinions about the Interfaces and re-designed them to look better, such as looking for different images.

4. User's Guide

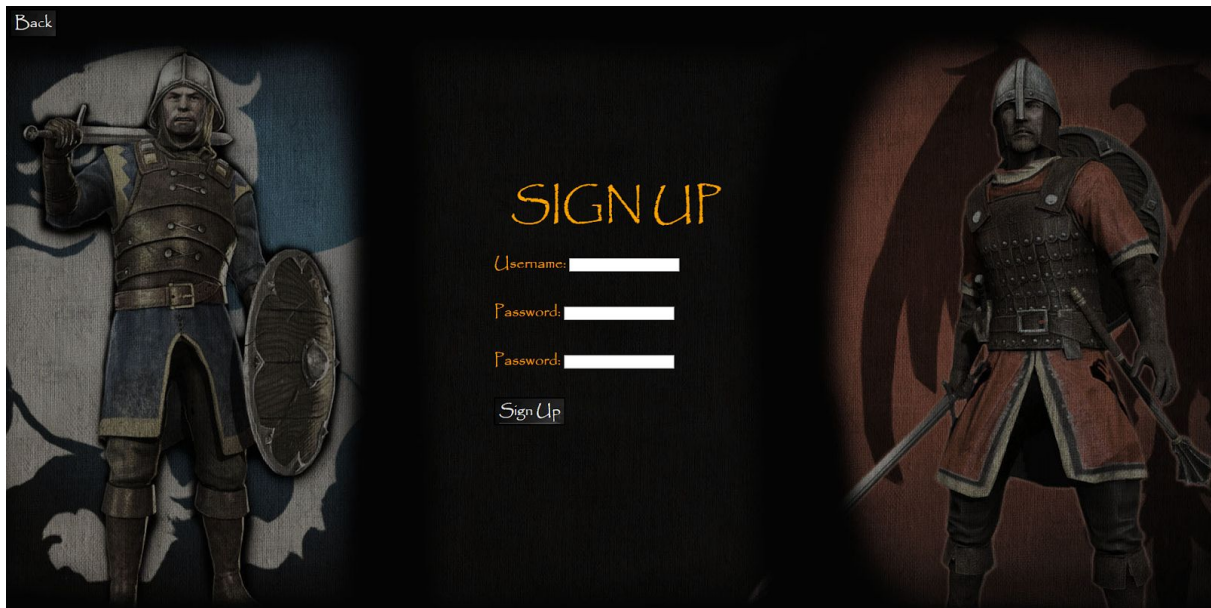
4.1 System requirements

System requires internet connection in order to play the game. The game works in web browser, so user need to enter the game using a web browser. It does not require installation process, users can play it directly from the browser.

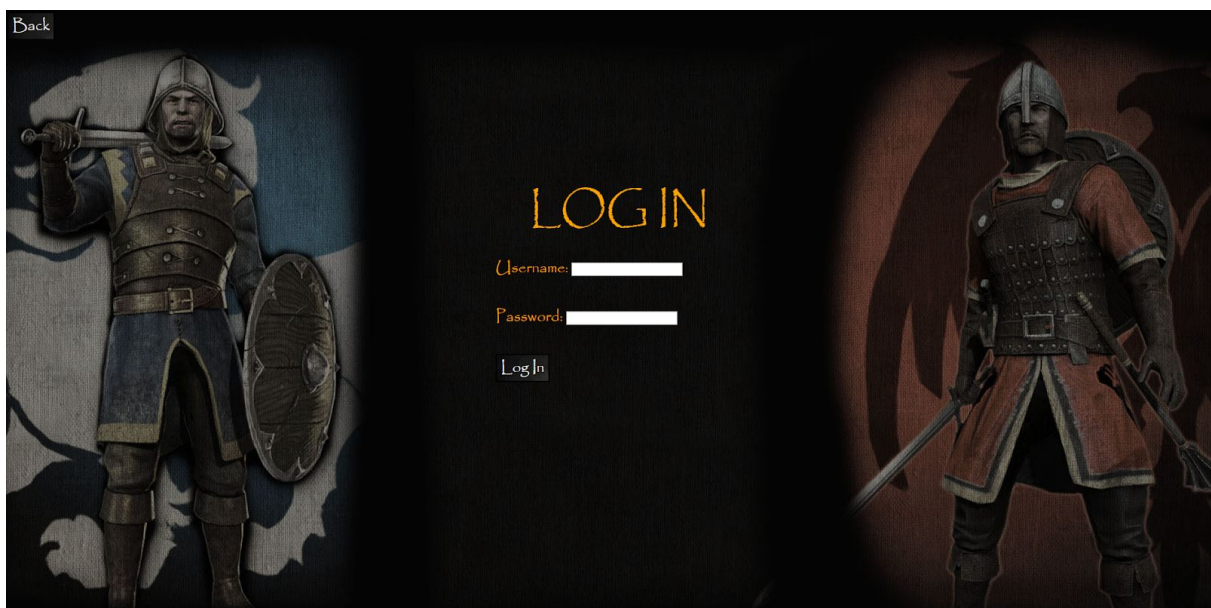
4.2 How to use



When user enters the game, an initial page will confront the user. User can open an account with sign up, or enter the game with existing account with login.



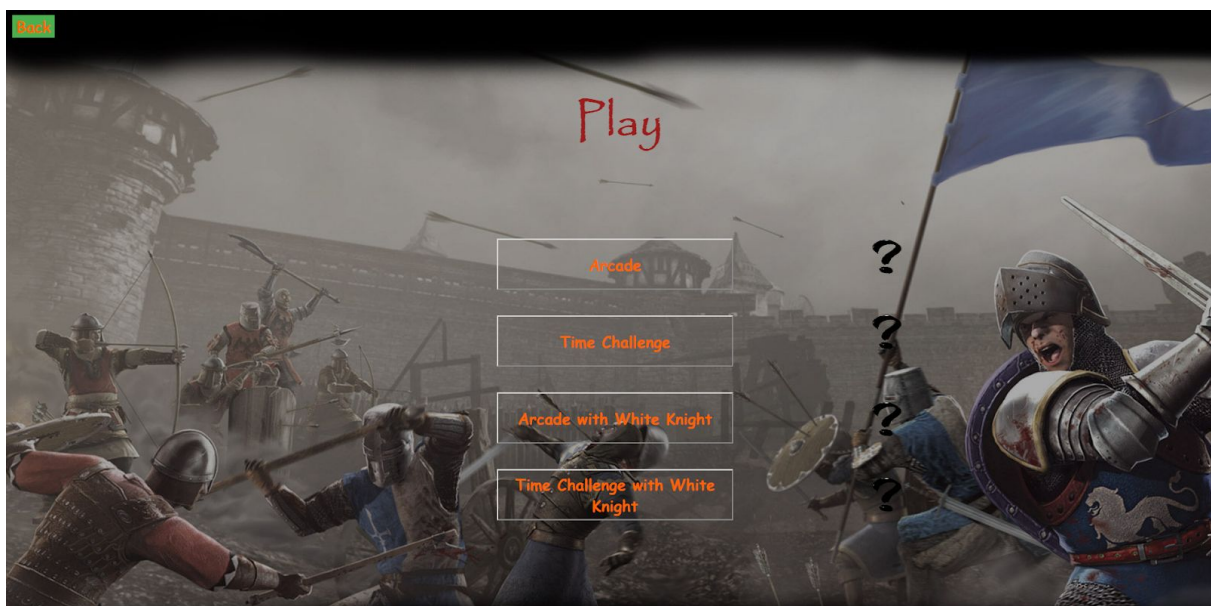
User can create new account in sign up page, with entering desired username, password and entering the password second time in order to verify.



In login page, user enters the username and password to enter the game.



When login is verified, user is directed to the main menu page, user is directed to the main menu. User can click play to proceed to choose the game mode. Also user can go to options page to change options, or highscored to see global highscores, and his/her rank.



In the play menu, user can choose which game mode he/she want to play to start game. Also can take information about the each game mode with clicking the question mark buttons next to them.



In the game, user can take the walls with clicking on them, and insert them into to board with clicking the desired positions. He/she can go back to the main menu with the button at the left top.