Bilkent University

Department of Computer Engineering

CS 319 - Object-Oriented Software Engineering

Term Project

Final Report

Group 1H

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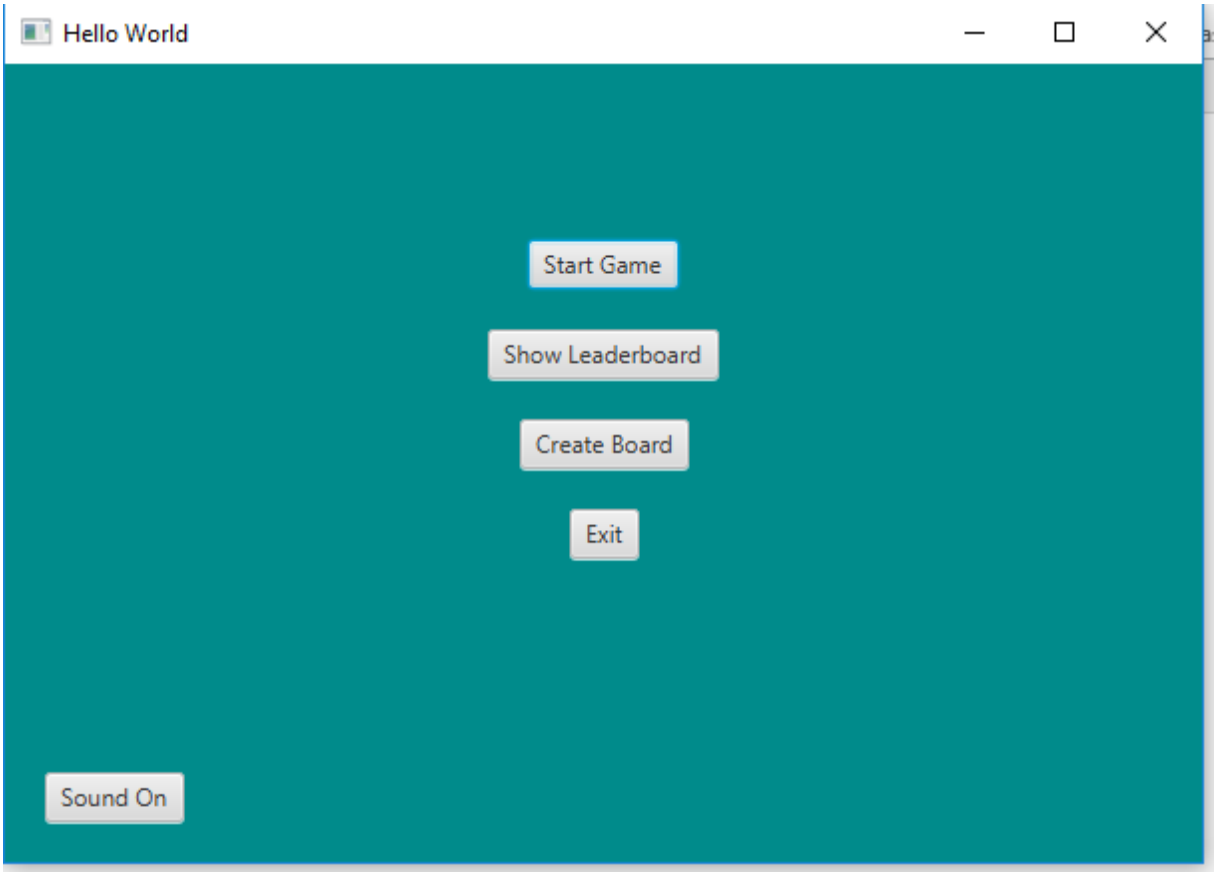
This report is submitted to the Department of Computer Engineering of Bilkent University in partial fulfillment of the requirements of Term Project course CS319

1. Implementation

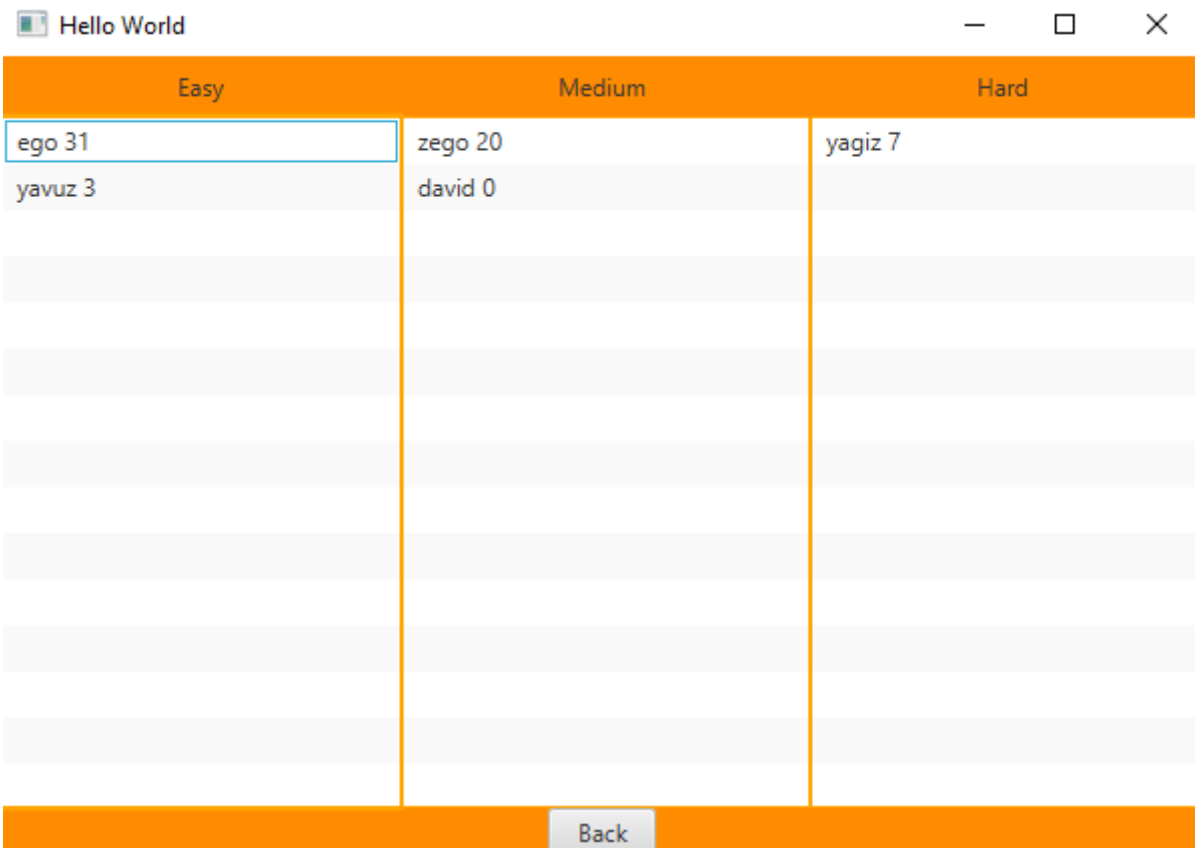
We started working on our implementation after we submitted our design and analysis reports. We divided the implementation into 2 main parts: GUI and code. These 2 parts were then further divided between group members. We used GitHub to maintain our code and synchronize the progress between group members. We used Eclipse for the code and IntelliJ for the GUI. Then we combined these in IntelliJ. IntelliJ and Eclipse are directly connected to GitHub, this made life very easy for us. Updating the GitHub directory has been very simple thanks to the pull and push functionality.

Ege and Yagız worked on designing the GUI together. So far they mostly acted as one rather than working on separate parts to allow for consistency in the user interface of our game. Now that the fundamentals of the interface are set they plan to complete the remaining parts of it independently. Simge, Zeynep and Mustafa worked on the backend. They initially sat together and created the skeletons of every class to ensure they all had the same understanding about how the system would work together. After that each member chose the classes that best fit their interests and started working on them independently. Even after countless meetings and diagrams, some members would have some questions about the implementation. When such questions arose our Whatsapp group came in handy and every question was quickly answered.

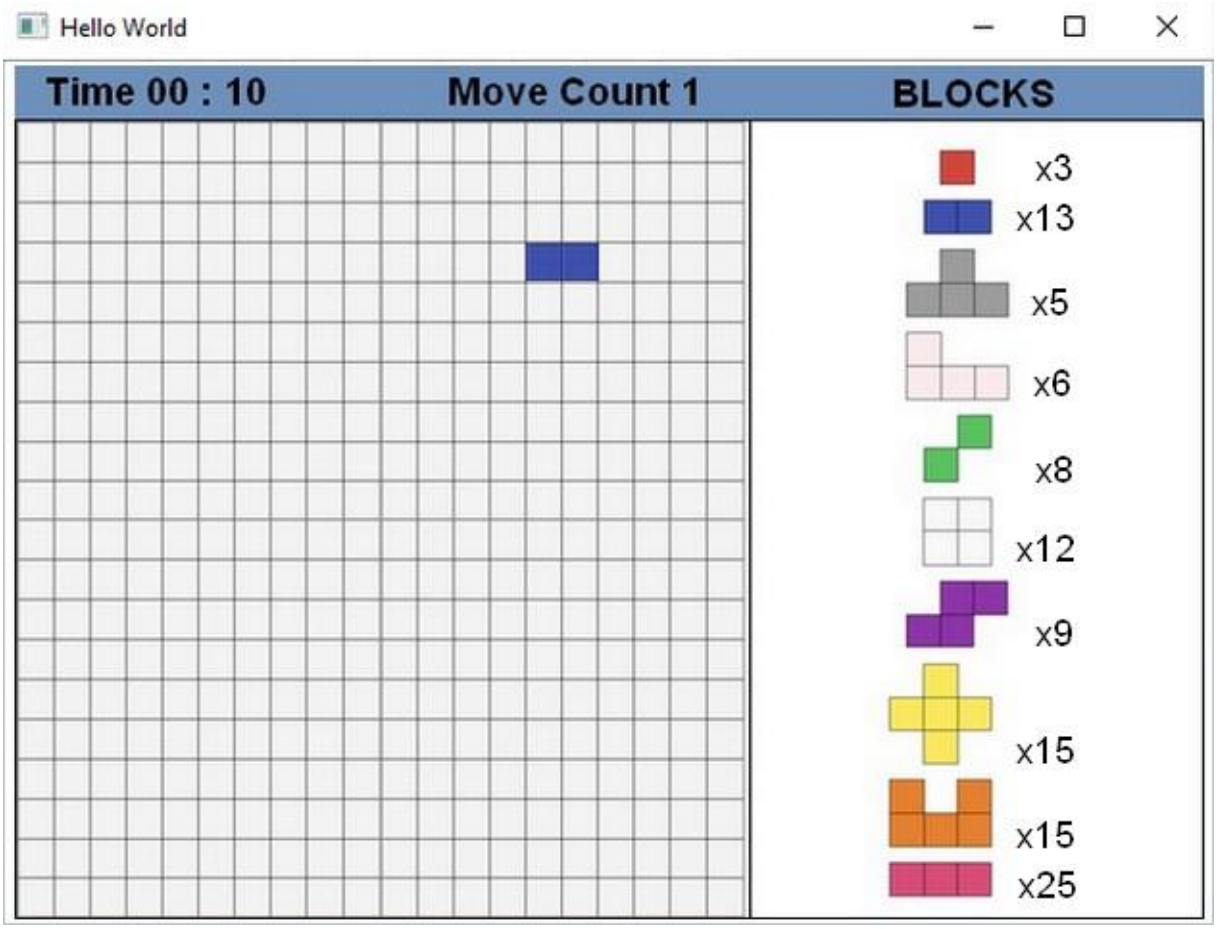
Obviously we could not finish everything so we tried to get the basics working with a limited budget (0 TL) with even more limited time. Below you can see what we have been able to get working:



We have completed the skeleton structure of our main menu. The user is able to navigate to the other parts of the game through this screen. The user can toggle the sound with the sound button. The text on the sound button is dynamic and displays sound on or sound of depending on the its state. The exit button allows the user to exit the game. The show leaderboard button takes the user to the leaderboard screen. Start game button takes the user to the board selection screen and then to the actual game itself. The create board button takes the user to the board creation screen. We made use of JavaFX and Intellij for most parts of the GUI. We plan to improve the aesthetics of the program in the next iteration. For this iteration we tried to get as many features working as possible.



The leaderboard has 3 columns, an easy row a medium row and a hard row. Each row contains the username and the scores obtained by users in levels of different difficulties. This screen also has a back button which takes the user to the main menu.



We couldn’t finish the game screen functionalities but the current state of its visuals can be seen above.