

Problem

The goal of this application is to provide a simple, entertaining and informative way to workout with a punching bag. The application will communicate with a sensor to provide the user with feedback on their workout in real-time. The result would be to package the software with a heavy bag containing the sensor so they can be placed in gyms.

Current System

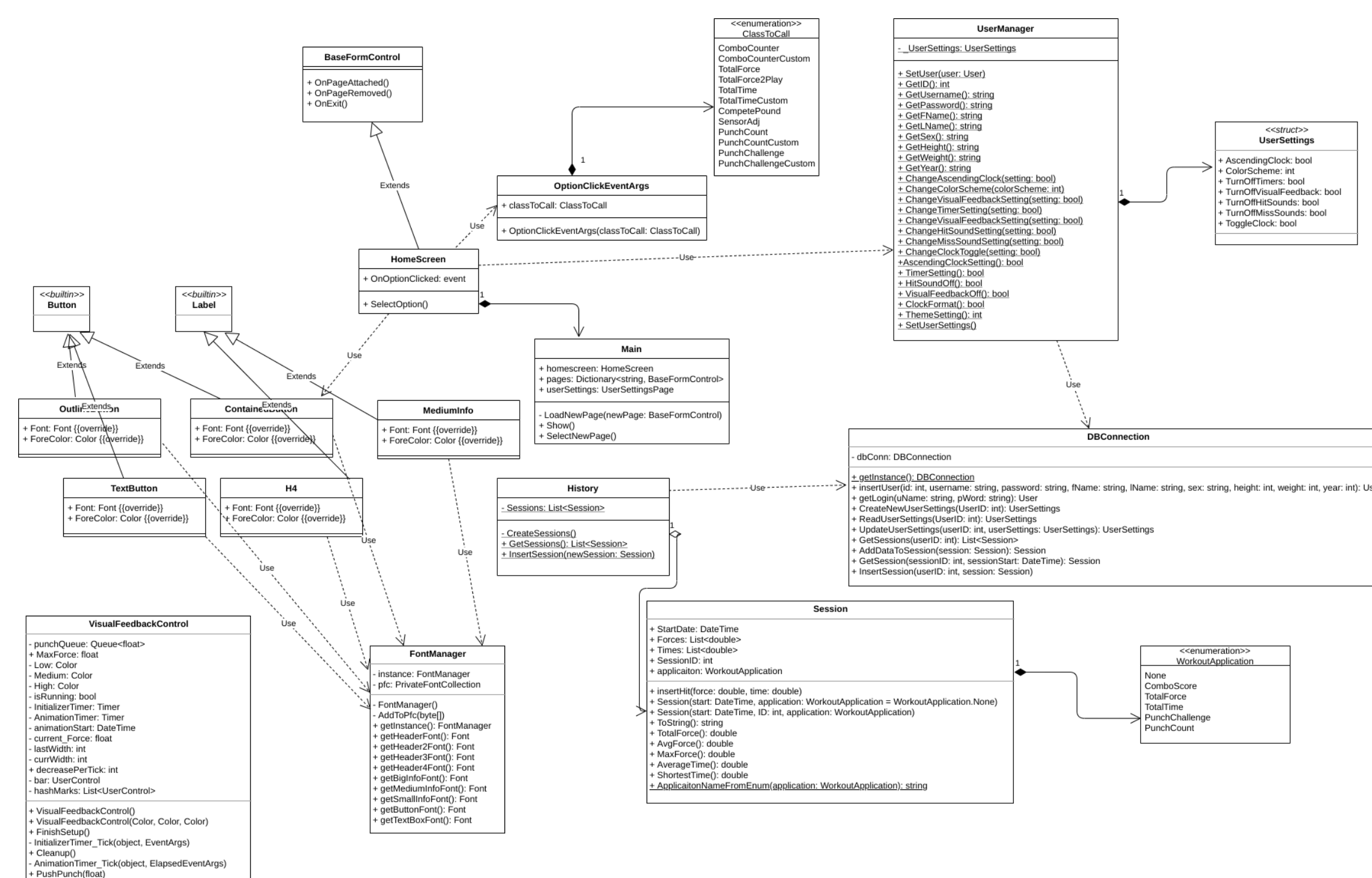


The ComboCounter has been through 2 iterations by other past FIU seniors who improved the product. Currently the system provides many different workout applications for the user to choose from. All these applications provide the user with information on their workout by providing different metrics and goals.

Requirements

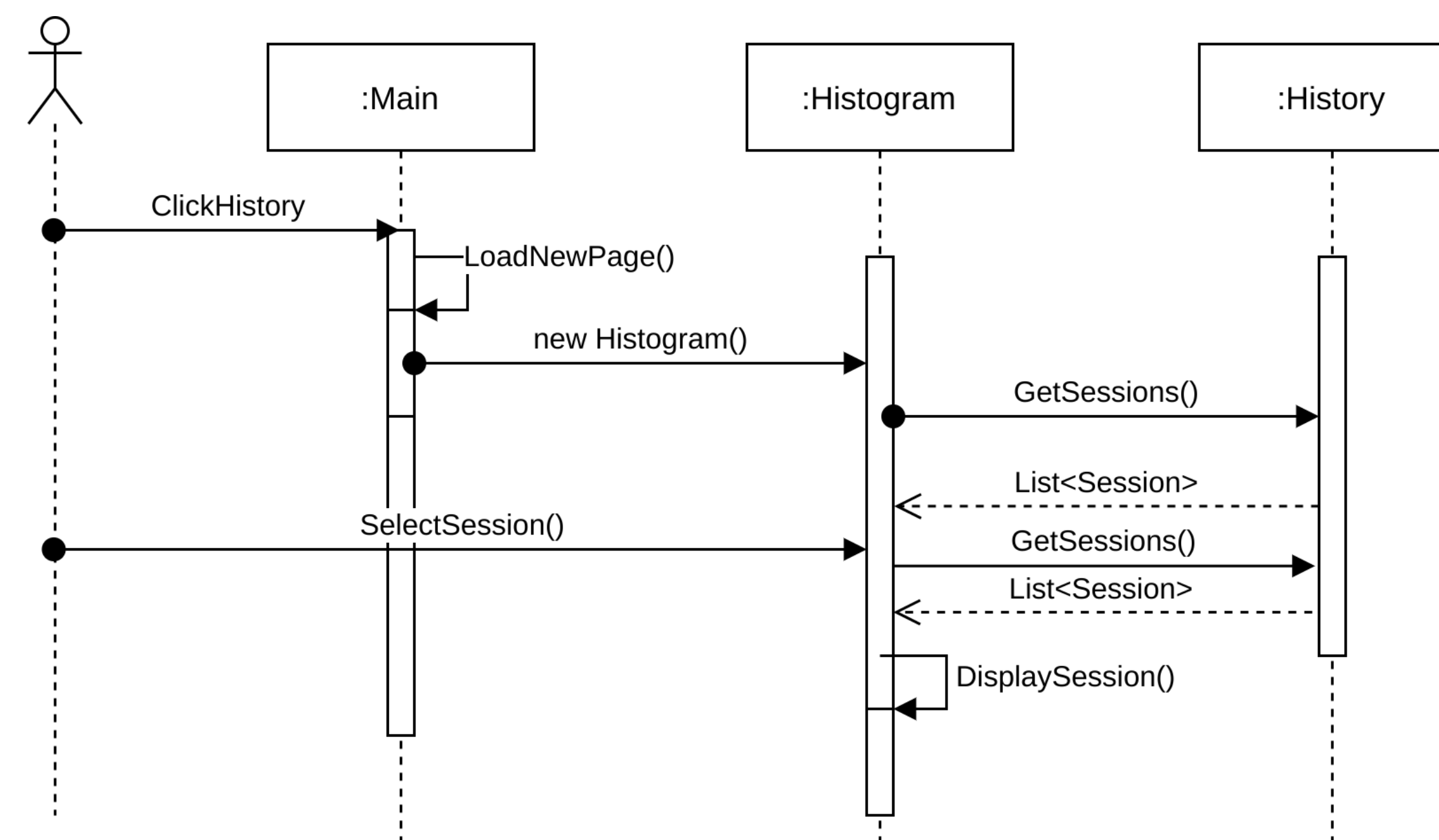
- There were a couple of goals we had for this semester
- Provide a dynamic theme system for the user
- Be able to show the user a history of their previous workout sessions
- Allow the user to customize more of their experience when using the app
- Give the application a more consistent look

System Design



Object Design

View Workout Session



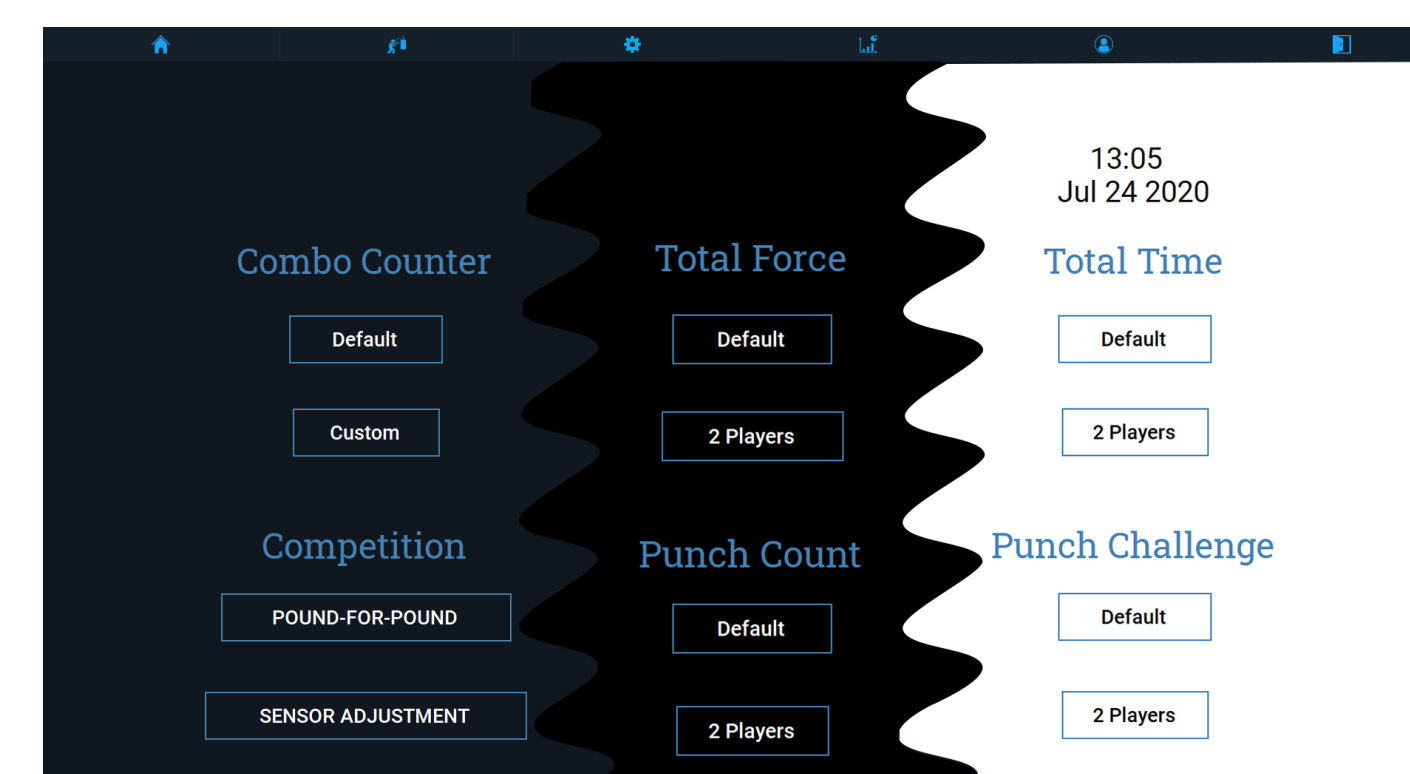
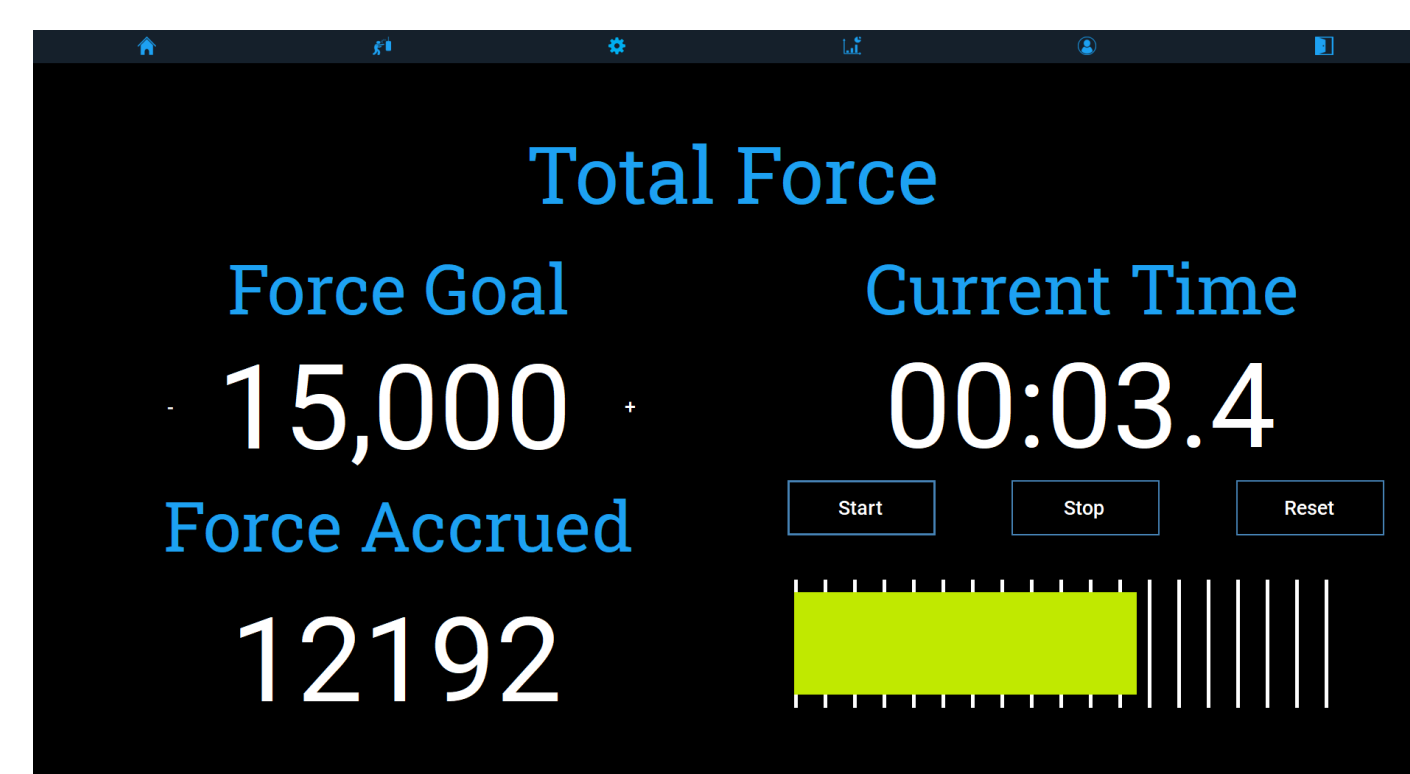
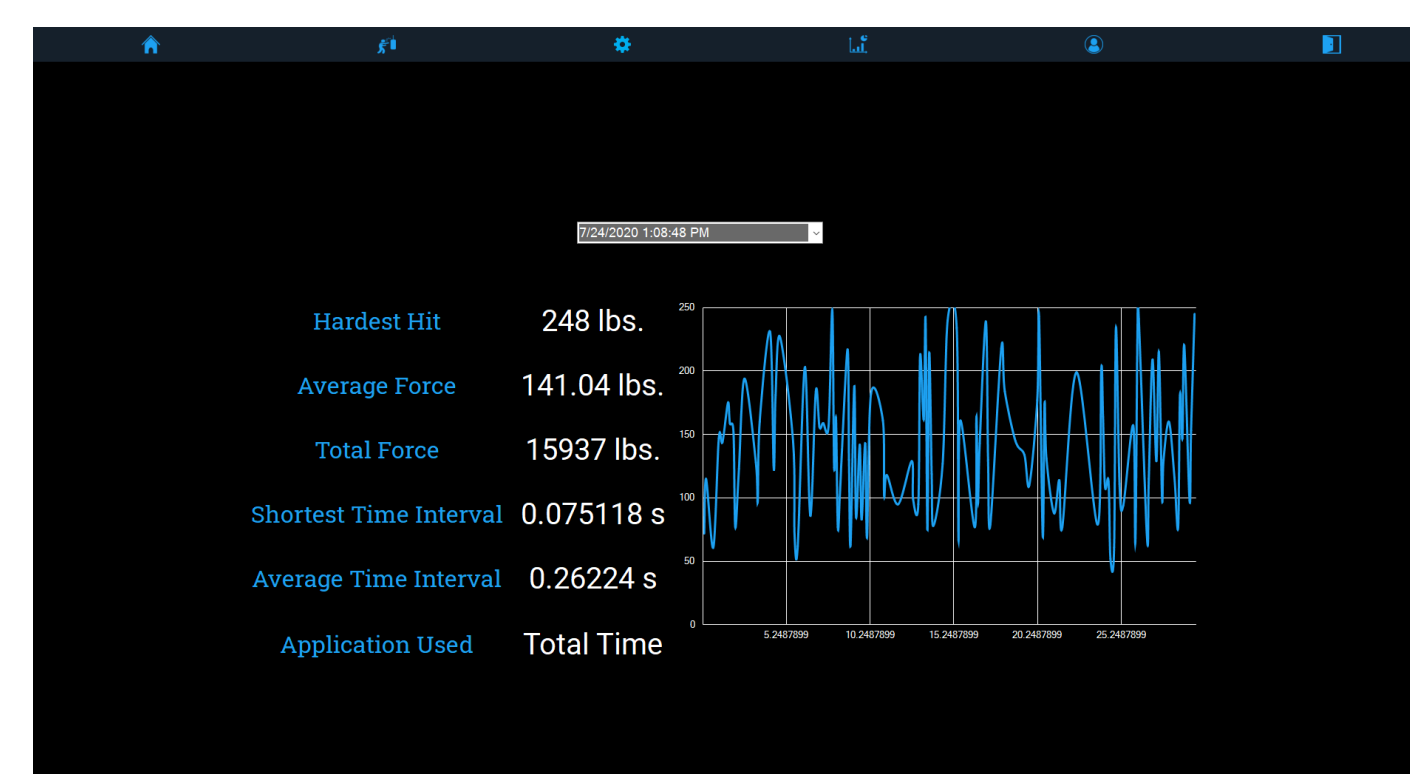
Implementation

For the implementation of these new features we wanted to make sure that it was abstract enough that it would be easy to add additional features to the project. However we also wanted to make sure the abstraction was not so complex that it made the code hard to follow or understand. The biggest change was to store the pages in a dictionary on the main window so that they could both be addressed as a whole and individually.

Verification

Most changes we made to the program were visual changes to the interface which made testing things automatically difficult without outside tools. We opted to do manual verification of the new features instead. This mainly consisted of making sure the feature worked as intended both when it was used correctly and when it was used incorrectly.

Screenshots



Summary

While we were unable to use the sensor to test the program because of the test data provided by the previous team we were able to make important improvements to the application and build on the base that the previous teams had provided. We feel the interface is more visually appealing and provides the user with a better experience when they want to use the software.

Acknowledgement

The material presented in this poster is based upon the work supported by Michael Bucar. We thank Michael Bucar for assistance, cooperation and mentorship that I/we received throughout this process