

SkillCourt

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PROBLEM

The problem we want to tackle is as follows soccer players struggle to remember their game stats. Having someone else keep tabs on them is challenging human error is more likely. SkillCourt was created to address this!

However, the following issues currently exist:

-The app is currently not available on for iOS or Android.

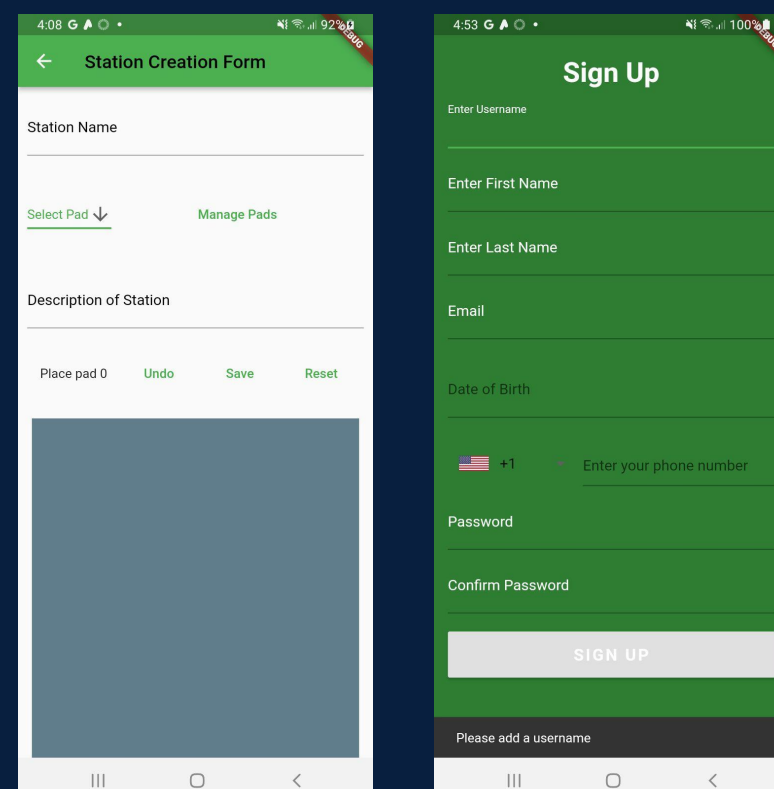
-The pads' ability to connect to the application plugin has problems.

-Flutter does not allow us to connect to the pads and must be down through the server side.

SYSTEM DESIGN

To create this application for Android and iOS, the technology is presently being implemented in Flutter. The purpose of the mobile application is to allow us to place the pads wherever we want in the field using the mobile application.

SCREENSHOTS

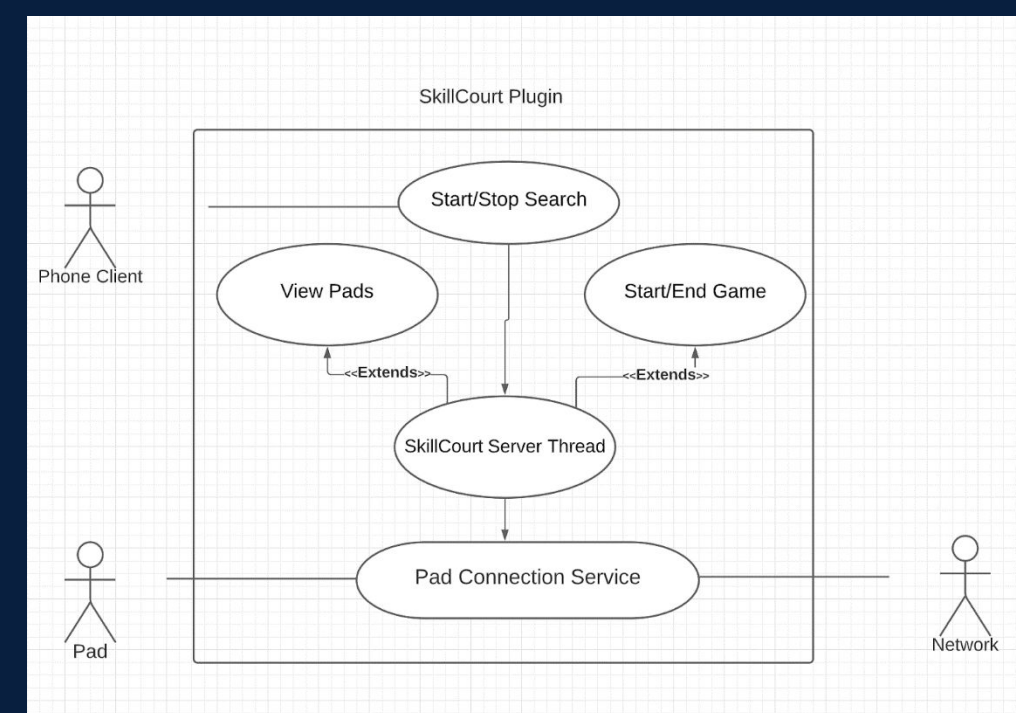


CURRENT SYSTEM

The current Skillcourt app supports the ability to connect to multiple "pads" simultaneously. SkillCourt app, which is being created in Flutter, is accessible to both Android and iOS users. Players can put up LED panels called "pads" that they can strike with a soccer ball; when they do, the LED panels light up and communicate with an app. Based on the hits, the pads gather data that is relayed to the app. As for the website, it is built on reactJS using Ubuntu and Docker.

OBJECT DESIGN

Figure 1: Use Case Diagram for SkillCourt Pad Pugin



REQUIREMENTS

In order to work on this project, the proper environment is needed. The following is necessary:

Website

- Node version 14.0.0
- Pnpm version 6.21.0
- Docker
- install WSL2 and use a proper distro
- Mac Vagrant
- Mac Virtual Box

Mobile

- Android Studio (for windows) or XCode (for MacOS)
- git
- git-flow or another git-flow plugin for Git.
- A proper emulator for Android or iOS
- Flutter SDK along with Dart
- Java JRE version 1.8 or greater
- Python 3 (for the pad emulator)

IMPLEMENTATION

This application is planned to be installed in IOS and Android devices. For the implementation in Android and IOS, we used a flutter plugin for each implementation to transfer data.



SUMMARY

Since the start of the project, we made changes to the branding of SkillCourt on the website and mobile app. We changed all branding on the website that refer to Agineek to SkillCourt. As a team we also worked together to implement server synchronization using GraphQL on the client side, but this was hard to work on due to docker problems we encountered towards the end of the semester not allowing us to further test the server synchronization. In addition, we worked with the mobile team in order to connect the mobile to the website but some docker problems occurred during this implementation we also encountered some problems running the mobile application on windows machines when testing this synchronization. The website team did experience some difficulties running things on the virtual side compared to the mobile team.

ACKNOWLEDGEMENT

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