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SkillCourt v9.0

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Problem

Soccer is said to have been created mid-19th century and training methods have barely improved since then. Coaches would provide general drills for the whole team as one. This lacks the ability for a coach to train a player individually to improve their talent.

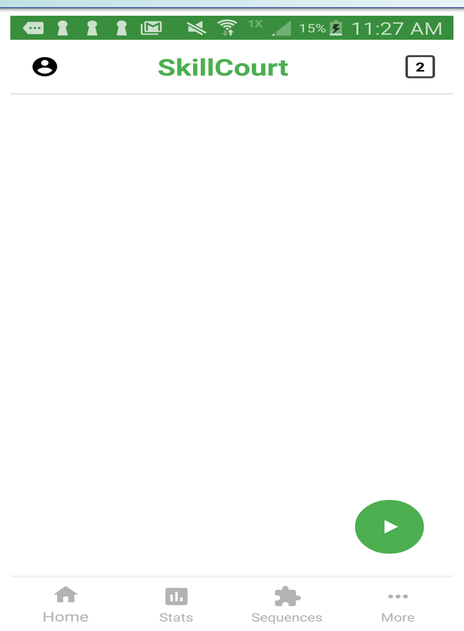
Current System

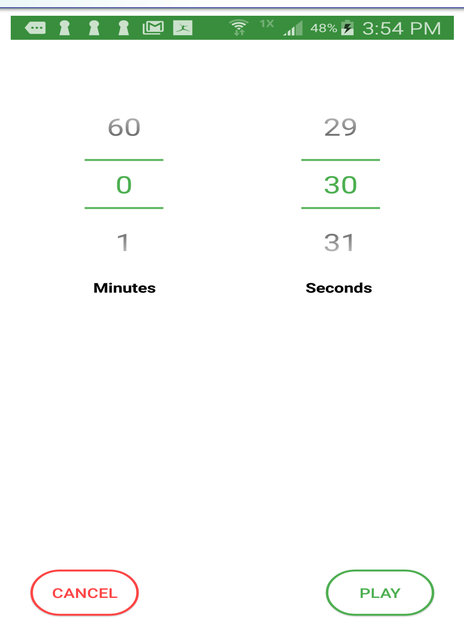
Previously there was an inefficient way of connecting the boards to the app due to the connections being statically written within the app. With this implementation there is no flexibility to use SkillCourt anywhere that there is another internet connection available.

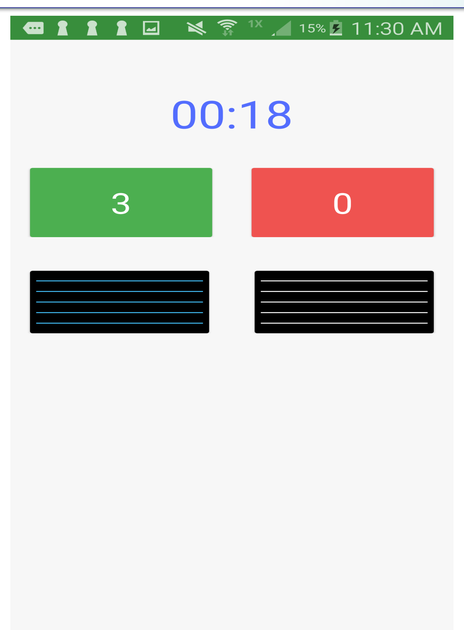
Solution

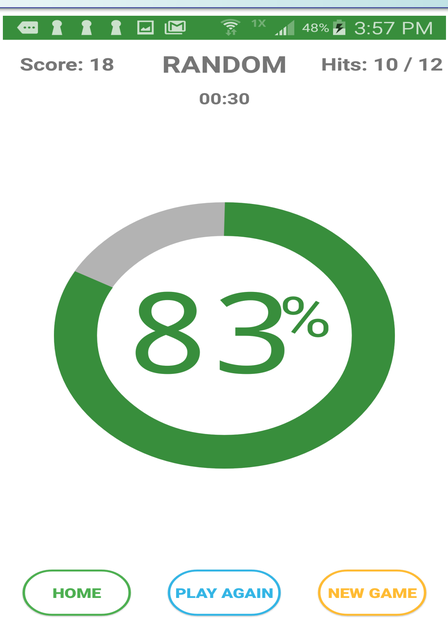
This version of SkillCourt will improve the connection between the boards and the app to dynamically connect and communicate over a network.

Screenshots









Requirements

- The app and the board(s) must be connected to the same network.
- The home screen must display the amount of boards connected with the app.
- To play a game the app must be connected to at least 1 board.
- When playing a game, network service discovery must be turned off so that the game is not interrupted by other board(s) trying to connect.

System Design

SkillCourt is developed in Android Studio using Java. With the help of Java's libraries and the Network Service Discovery library included by Android's Software Development Kit the app is able to broadcast SkillCourt's service on a network where the board(s) can search and connect.

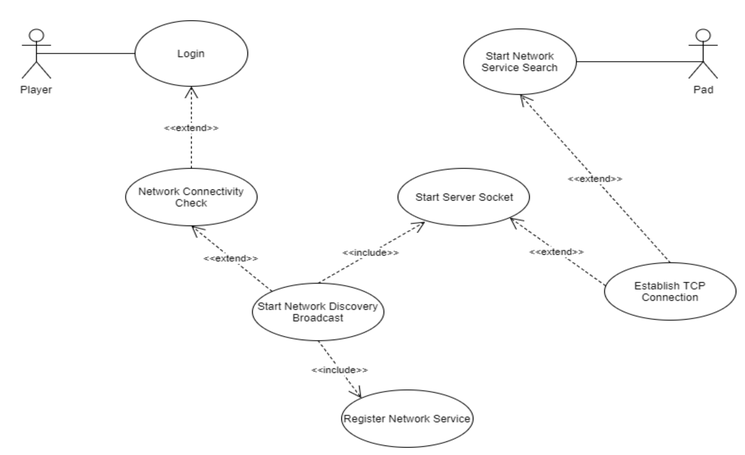
Implementation

- First check to see if the phone is connected to a network.
- Once the phone is connected to a network the app broadcast the service.
- When the board(s) connect, the app then establishes communication with the board(s).
- Update the home screen to show a board is connected.

Verification

For verification, integration & unit testing via white box testing techniques was used. With these tests one could verify that the proper number of boards connected is displayed on the home screen after a connection is established.

Use Case Design



Summary

SkillCourt provides an innovative way for individual players to train and hone their soccer skills. This iteration of SkillCourt allows the app and board(s) to connect dynamically on any network making SkillCourt versatile to use at any location via wireless internet.

Acknowledgement

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