Phone Tennis

Members
Pontus Knutsson (UI/Sensors)

Oskar Georgsson (Bluetooth)

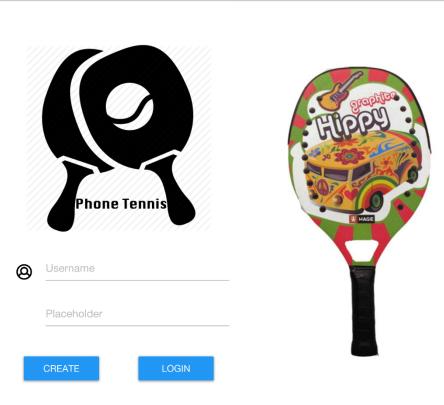Linus Håkansson (Sensors/Firebase)

Goals and features:
The goal of the app is to play beach tennis via Bluetooth between two phones. We will use the accelerometer to detect a swing and the magnetometer + accelerometer to know where the ball was sent and sent from. The user will be able to "feel" when the ball is coming and must hit it as soon as possible else it's a lost point. A leader board will also be present where you can see rankings and one board where you can see your own history.
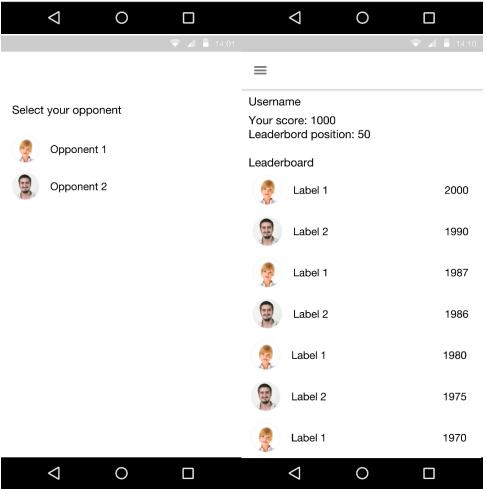
Initial expectations:
You should be able and play with good results. Detect where you send the ball (lost point if it's "out"). Stay connected with some distance between you and your opponent. Add the user to a database and show information on the leader board from the database.

Mock-up
Here we will show some screenshots of how to application intend to look like.

Phone Tennis

Username

Placeholder

CREATE　　　　LOGIN

≡

Select your opponent

Opponent 1

Opponent 2

Username

Your score: 1000
Leaderbord position: 50

Leaderboard

	Label 1	2000
	Label 2	1990
	Label 1	1987
	Label 2	1986
	Label 1	1980
	Label 2	1975
	Label 1	1970

Development plan

Here we will explain the development plan in detail.

Sprint one

During sprint 1 we will start designing the user interface to the level that it is almost finished. Pontus will have the main responsibility for this part, but we all will help each other to succeed. It's easier to implement other parts when there is a vison of how the application will look like. When it comes to Bluetooth and Firebase, we must do some research about it since none of us has been using it before. As said before, Bluetooth will be used to connect two devices and firebase will be used to have a shared database between users for different purposes. Firebase will also be used to create unique users. The owner of each task is responsible for that things get done, but we will help each other on all task.

Sprint two

Here we will start implementing Bluetooth and Firebase. The research from the week before will result in that we now should implement the part where it should be possible to send data between two android devices using Bluetooth low energy. Implementing Firebase will result in that we should be able to save user information and game history. When this is done, we will move on to implement and use the needed sensors.

Sprint three

In this final sprint we will wrap things together and be able to do some testing. If we need to change some things, it should be done during this sprint.