

Bi-weekly Report

30/10/2015

(Ng Zhi, Sam Mai, Diana Darie)

Overview:

Our objective for the project is gathering data from different devices including Android mobile phone and wearables using a range of different applications like Diabetes:M or GoogleFit etc. The data that we gathered for each individual user will be stored in our OpenMRS platform, where they will be able to view past entries and also share medical related records to their doctor.

Over the span of 2 weeks, we managed to get our framework for the mobile application set up and running, which synchronises data from Google Fit to our OpenMRS platform. The OpenMRS app currently only offers a limited range of operations for us to choose from, such as viewing information about patients on database or starting a visit on a patient etc. However we would need to modify the app so that it will allow registration of patients/users and allow the editing of information about a patient.

We have also managed to get data readings out of GoogleFit using the GoogleFit History API, which we will soon integrate with the OpenMRS platform once we manage to get our server running.

Team Meetings:

During the past two weeks, we had several team meetings where we tried to solve the technical issues regarding the use of OpenMRS (installation of OpenMRS platform as well as the Android client). In addition, we had around 2-3 meetings per week with our client to report our progress, what we have managed to achieved and problems we are facing as well as discussing our next step or general direction of what we should focus on until the next meeting. In addition, we are keeping a close communication with our client via emails and skype calls.

Team Roles:

We have decided on the team roles as following:

- Sam
 - Major Roles
 - Deputy Manager, Chief Researcher, Chief Editor
 - Minor Roles
 - Website Developer, Android App Developer
- Chevy
 - Major Roles
 - Technical Lead, Chief Editor
 - Minor Roles
 - Website Developer, Feedback App Developer
- Diana
 - Major Roles
 - Group Manager, Client Liaison
 - Minor Roles
 - Android App Developer, Feedback App Developer

Problems Encountered:

Most of the problems we encountered were technical issues and understanding properly how the OpenMRS platform works. We ran into some issues regarding installation and running of the OpenMRS Android client on our phones, which we were able to solve after some troubleshooting.

The problem that we are facing now is finding a way to add more functionalities into the OpenMRS Android client so it will fit our project case.

Tasks Completed:

Diana

During the past weeks I have been working on changing the openMRS android client to fit our project case as well as researching what wearables are best to use for our case. I have found that the “Pulse ox” wearable fits our case perfectly as it measures not only the basics like steps, calories, elevation and distance but also heart rate and oximetry which we need for measuring the diabetes danger. Furthermore, we are thinking of using the myDarioSmartMeter to measure the glucose levels. Moreover, I have been working on setting up the website as well as designing small parts of it.

Chevy

For the past weeks, I have researched on setting up the website on the server that UCL have provided us with, as well as researching the wearables that provided that best functionalities and ease of extracting data from the wearables.

The wearable I researched on was by Fitbit, which allows the user to measure heart rate, steps, calories and sleep quality. Fitbit also provides their own API for developers to work with the data collected by the device, which is what we are looking for as well.

I have also started working on the team website which I will upload to our team server.

Sam

For the past 2 weeks, I started to make changes to our android app client beginning with fixing a few small things i.e. settings somehow caused the app to crash before etc. and soon will begin to work on expanding functionality of the app. I have also begun working on our team website which soon will be uploaded to our designated CS folder.

Next Week Aims:

For the next two weeks we are planning to:

- Modify our OpenMRS platform to store data from GoogleFit
- Synchronise data from GoogleFit History API with our OpenMRS Android client
- Develop the team website
- Purchase a Fitbit Charge HR so we will be able to start collecting real data to input in the OpenMRS server.