Bi-weekly Report 6 - OpenMRS Hypertension 29/01/2016

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Project Client: UCL - Prof Philip Treleaven & Bupa - Alex Matei

Overview

Over the past two weeks,we have been working on our Android client, implementing the upload and download of data to and fro our OpenMRS server using the REST module which was installed on our OpenMRS platform, exposing the OpenMRS API as REST web services.

If an OpenMRS instance is running the Webservices.REST module, other programs will be able to retrieve and post certain information to the OpenMRS database. Therefore, the REST API allows us to manage POST, GET and DELETE requests to the server.

For the OpenMRS platform, every available object is written as a resource. The resource class defines the properties that are exposed and the setters that are available. Every web service has a specific URL and a representation that has to be used to make the server requests.

One of the problems we encountered was writing these requests. For instance, to create a new person, the URL has to have the following format: POST create:[*names*, *gender*, age, birthday, dead, deathDate, caouseOfDeath, address, attributes] but the name section has to be sent as a string such as: "names":[{"givenName": "John", "familyName":"Smith"}].

Another problem we encountered was having our admin account being “retired” by the OpenMRS server due to too many request calls being made, making us unable to connect to our platform. We solved this by changing the user password from the database and creating another client with the same rights which is going to be used for developing and testing purposes to prevent other problems from encountering.

Furthermore, we have managed to get data from the Fitbit smartwatch as well as starting to work on the user interface for the Android app.

Meetings

During the past weeks we had 2 meetings with our client where we discussed about our project progress as well as our next week aims. We have also talked about the project presentation as well as what we are going to say during it.

Tasks Completed

We have managed to make POST and GET requests to the OpenMRS server by installing the OpenMRS module and using the provided OpenMRS REST API. We have also managed to get the data from Fitbit and started working on the Android app user interface.

We have modified our old Android client so that the user can now synchronise their Fitbit smartwatch as well as manually inputting other data (food log).
Modified Google Fit API to fit our aims and integrated it into our Android client.

Next Aims

For the next few weeks, we are going to continue working on the user interface, implementing the other activities such that the user can manually input his exercise log, heart rate and height & weight values. We are going to add another synchronising option, this time with GoogleFit. Furthermore, we will start researching which is the best way to implement a chat option between the patient and the doctor and what is the best way to store this data

Members Contribution

Diana

During the past two weeks I have been working on modifying the old Android client such that reading from as well as writing to the OpenMRS server is now possible. I have coded the Home page of the Android application where the user can choose between manually inputting new data regarding their food log, exercise log, heart rate and height & weight values such that the data will be saved to the OpenMRS database. Moreover I have been working on the project presentation, making the powerpoint and writing the script.

Chevy

For the past two weeks, I have been working on getting the data from the Fitbit smartwatch using the Fitbit API, which I have successfully done so using the OAuth2 framework and Chrome Custom Tab. I'll be working on integrating the data from Fitbit with our Android client for the next week.

Sam

I have been working on modifying Google Fit API and integrating the API into our Android client so that it is possible to obtain required data such as calories burned, step count etc. At the current moment, I am working on sending the readings from Google Fit back to the OpenMRS database, which should be finished by the end of the week at the latest.