

OpenMRS Android Client 3.x Project - Phase 2

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Assigned to	

Abstract

The aim of the project is to implement new features and improve OpenMRS Android Client.

Market share of Android point is around 82%. Due to cheap prices and popularity of android phones, apps can be used to do the work easily and efficiently. It is specially useful for developing countries. We can also use some features provided by phones like camera, GPS, voice recording etc to make it even more useful.

In Hospitals, Clinics there aren't many computers and most of the work is done manually. It include a tiresome work to maintain patient records manually.

An Android app which work smoothly and make the hospital/clinical staff more efficient is much needed. Instead of large size computer which allows little flexibility, staff can use android phones.

Skills Needed

Android, Java, Basic SQL

Objectives

1. Provider Module: Provider Module is a large feature request by the community. More information here:

<https://talk.openmrs.org/t/suggestion-for-openmrs-android-client/4134>
<https://talk.openmrs.org/t/android-client-gsoc-2016-project-ideas/4903/10>
<https://talk.openmrs.org/t/android-client-gsoc-2016-project-ideas/4903/12>

2. Visual Improvements:
 - Charts can be displayed in more elegant way.
 - Other small improvements:
 - Progress dialogs taking too much space. Redesign it to make it compact.
 - Replace rangedEditText with seekbar making it easy and faster to select value.
 - Use TextInputLayout from the design library instead of the normal editText.
3. Security Improvements: The app misses lots of security features like:
 - Database should be encrypted from the details derived from the username and password.
 - If user changes password on system there is no system to detect it and logout the user automatically.
 - Forgot password option.
4. Application Tour: Tour of the application so that a new user familiar himself/herself with all it features and working and can use the app to its fullest.

Extra Credit

Analytics - <https://talk.openmrs.org/t/google-analytics-for-android-client/6070/3>

We want to create a way for the Android app to collect important usage data and report it back to the local server, so that the sysadmin can look at the Analytics. The extra credit will be for making the Analytics viewing system on both the app and the admin panel. Note: We will not use Google Analytics but will develop our own system so that we can have the data in the local openmrs server.

Resources

- <https://github.com/openmrs/openmrs-contrib-android-client>
- <https://openmrs.github.io/openmrs-android-client-user-guide/introduction.html>
- https://talk.openmrs.org/t/gsoc-2018-openmrs-android-client-3-x-project/18035?source_topic_id=19471

Completed Objectives (Phase-1)

UI improvements

- improved the way that charts are being displayed
- Progress Dialog Improvements
- Replace RangedEditText with seekbar
- Use TextInputLayout instead of the normal EditText

Security improvements

- Encrypt the database using the details derived from the username and password of the user
- Password Change detection and log out the user

Remaining Objectives (Phase-2)

- Provider Module
- Forgot password option.
- Application Tour
- Extra credit Analytics task

final report link: <http://easyprogramminglk.blogspot.com/2018/08/final-report-of-openmrs-android-client.html>