

## **Project charter**

**Explanation of why this project exists:** The staggering number of maternal deaths due to pregnancy-related complications occur mostly in remote areas of developing countries. Nepal experiences more than seventy five hundred deaths per year. Providing ultrasound services in the remote areas of Nepal is one of the solutions to this problem.

**Project champions:** International Non-governmental Organization which aims to build an ultrasound train-the-trainer program in Nepal.

**Deadline for the project:** December 1, 2013.

### **Main goal of the project:**

There are four types of users of this software:

- Radiologists, who accept the images of patients, analyze them, and send back their opinions and decisions about the patient.
- Fieldworkers, who Click and send Patient's Ultrasound Images to server via smartphone app (android).
- Managers, who do the management of the patients in the hospital.
- Superusers, who actually do the management job of the software, like deleting/creating accounts, managing the information, etc.

Goal of the project is to build an android application which allows field worker to send ultrasound images of patients, and to have a way to receive the results and decisions of radiologists back. We need to accomplish the described mechanism and individual duties of the types of users involved in the project. A stand-alone application with the following properties needs to be developed for radiologists, managers and superusers, in order to access patient's information from database:

- Connects to server and database.
- Has a simple intuitive user interface with nice presentation of retrieved data.
- Sends radiologist response back to the server.

A server is required to receive and handle requests from the android application and process them.

- Needs to store the image sent by field workers via android app.
- Needs to store individual patient's information in database.
- Needs to send back response from radiologist to the field worker.
- Needs to be able to restrict information access for specific users.
- Needs to store registered users' details in database.

### **User stories identification for next Sprint Preliminary:**

1. Superuser user story #2: For the superuser being able to manage the access restrictions for the users is one of the most important features needed, because without this feature users can see the information which they are not allowed access to. Due: October 6 (~ 4 days)

2. Superuser user story #4: For the superuser being able to query the database using SQL so that he/she can build custom reports, without having to modify the source code. Due: October 7 (estimated duration: 1 day).
3. Manager user story #5: Patient's ultrasound image can be considered by at least two radiologists, thus, without having multiple radiologists to comment on patient's ultrasound, the patient observation will not be completed. That may cause the delay of patient's treatment time. Due: October 14 (estimated duration: 7 days).
4. Manager user story #6: It is manager's responsibility to decide between conflicting decisions of radiologists about patient. Thus, the manager should be able to see the comments and resolve the problem. Due: October 18 (estimated duration: 4 days)
5. Manager user story #9: If the information is disorganized, it will take a long time from manager to reply for fieldworkers and radiologists. Due: October 20 (about 4 days).
6. Manager user story #11: After the manager resolves any conflicts among radiologists about the patient, manager should be able to send the diagnosis to the fieldworker, and if the manager knows exactly whether the fieldworker received the sent information, it will avoid any uncertainty issues about communication between the manager and fieldworker. Due: October 22 (estimated duration: 2 days)
7. Fieldworker user story #17: Images needs to be saved on the android device even after uploading it to the server so that fieldworkers can have a failsafe in case the data was sent incorrectly. Due: October 16 (estimated duration: 1 day)
8. Fieldworker user story #20: If the interface is complicated, it can take more time for the fieldworker to send the information. Due: October 21 (estimated duration: 5 days)
9. Fieldworker user story #21: Visual feedback will be the justification that the data was delivered correctly, so that in case by any reason the information was not sent, the fieldworker will know about it. Due: October 23 (estimated duration: 2 days)