Project Title: Life Saving Aid mobile application

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Project Objective:

This application is built for people who have emergent medical conditions such as heart attack, allergy, asthma, hypothermia and stroke. The app will dial 911 and send out SOS message to user's friend through contacts list if the SOS button is pushed. The message will include possible medical conditions based on user's medical history and location of the user, and the medical history information will be enter by users themselves. The other feature of the app will include a dictionary of first-aid information for user who wish to help another person in emergency situation.

The interesting facts:

Most of first aid app is built to teach people to save the patient using first aid knowledge, our product is built for patient to help themselves. The app not only dials 9-11 but also seeks help from user's frequent contacts. The main idea is to maximize the response time in case of SOS event. By seeking help from all contacts in user's phone, the app maximize the user's chance of survival if one of the contacts provide help before 9-11 arrive. The app also have feature that can teach the users to save people in serious medical condition, or providing simple first aid.

It is reasonable to create this first aid app on mobile device. In current digital age, majority of population tend to have a mobile device with them all of time. The app allow users to call help anytime and anywhere as long as they have their mobile device. In addition, the app itself is built as a mobile first aid information kit. Thus, it make sense our project is built in mobile form.

The risk:

Some functionality may require advanced computer science knowledge that we are not yet knows about. Such as how to detect coordinates. How to send message to other people's phone number. In order to minimize such risks. We will search some open source project to see how other people solve these problem. This is possible because we know there are app already having there functionality we just need to build on top of it.

Functional properties:

1. Emergency call – The app can be run in background. In the Lock Screen, there will be an emergency-calling button. When users in emergency conditions, they can send their help requests and locations to their contacts and 911 by clicking emergency-calling button. The rescue team can use GPS to track the location to find users.
2. Users health condition data record -- All users have to update their health conditions to app, The health conditions include users allergy, users illness records and so on. When users click emergency-calling button, the phone will send these data to their contacts and 911. If the rescue team can get those information early, it will save rescue time and users have more chance to survive.
3. First aid knowledge dictionary – There will be a dictionary containing survival knowledge. Users can learn how to do first aid by reading the dictionary. That is good for users to help themselves and help other patients. The dictionary classifies different situations, so users can get information efficiently.
4. The app will use GPS API in order to get the location of the users. Also, it also use texting API in order to send message to other contacts.

User's interaction:

Assume that there are two users: A, B. Both A and B have to upload their health conditions to the server. For example: A is allergic to penicillin. When A gets infection, he needs aid. So he clicks the emergency-calling button. Then the app will use GPS to get A's coordinate, and send his coordinate and the fact that A is allergic to penicillin to B. After B gets those

information, he will bring the medicine without penicillin and use that coordinate to find A. If the B doesn't know how to help A, he can learn how to do by checking the dictionary.

Non-functional properties:

1. Users can learn the knowledge of first aid in order to help themselves and other people.
2. Users can send SOS message to their contacts.

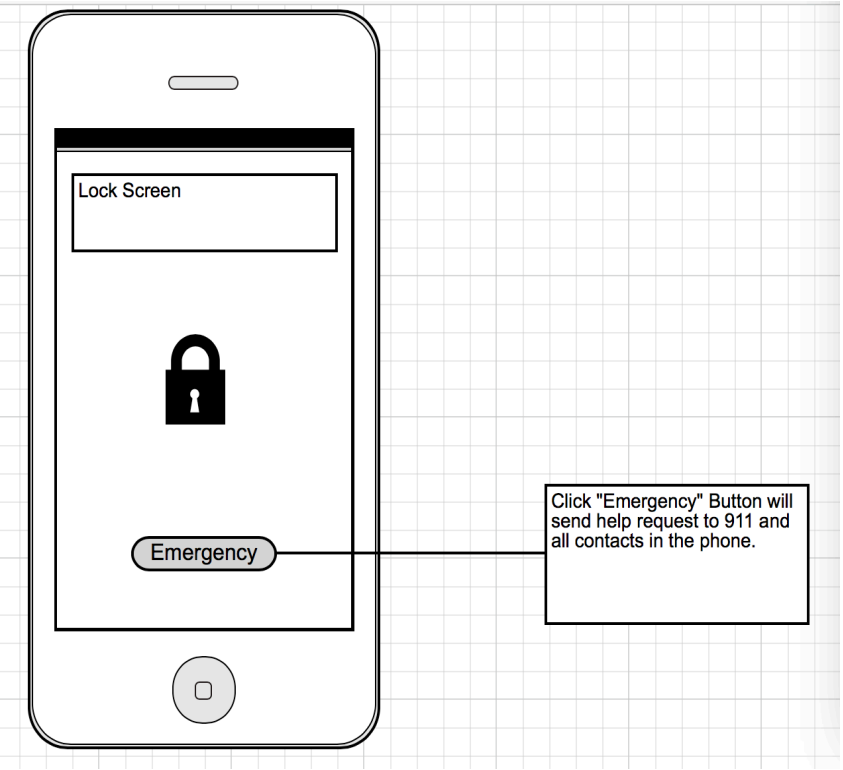
Identify the major activities you expected to undertake:

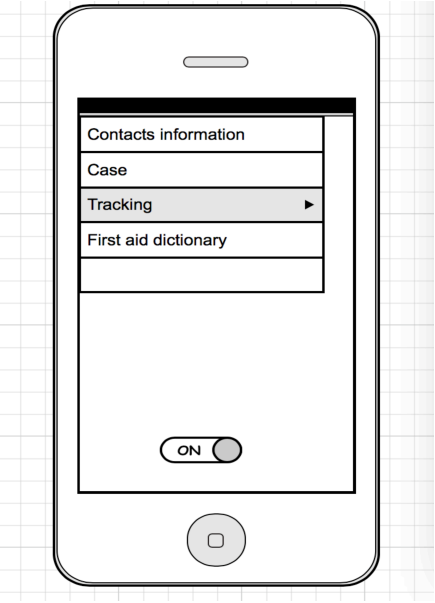
1. Functionality research:
    - Search on following code related topic:
    - API research.
    - Device tracking
    - Sending message to phone
2. UML and breaking down task for each individual
    - Design UML
    - Decide who is responsible for each part of project: (EX: who is doing UI?)
3. Researching first aid:
    - Learning about how to response to some common emergency situation.
    - Input the information into the app.
4. Coding and testing
5. Merging everything together.

Schedule:

- Activity 1 and 2 start on week of Feb1, and continue for 2 weeks.
- Activity 3 starts on week of Feb 8 and to be done during in-group meeting. This activity must done before week of Feb 14 since we start activity 4 after that.
- Activity 4 involve each member coding and testing for their part and we will use about 5 weeks for this part.
- Activity 5 start on the week before the due day, which is week of March 21.

There are three people involved in completing this project. Jenny will handle activity 1 and 3, Su-yang Ye and Li-Chung Chang will handle activity 2, 4 and 5. We will learn how to develop android application from http://developer.android.com/design/index.html. We will use android stadio for developing the app.


Lock Screen
Emergency
Click "Emergency" Button will send help request to 911 and all contacts in the phone.


Contacts information
Case
Tracking
First aid dictionary
ON