PROJECT PROPOSAL
CS4472 - MOBILE COMPUTING

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1. Title of the project : MOBILE APPLICATION FOR FIGHTING COVID 19 IN SRI LANKA

2. Overview of the Project

   This project is intended to develop a mobile application to fight Covid-19 pandemic in Sri Lanka. This application will promote social distancing practice among users. The App will be able to trigger an alarm when two persons are closer than 1.5miters distance. Also it will track and store user interactions with other users. Thus those stored data may help to track all the users who have interacted with a Covid 19 positive patient.

3. Objectives of the Project
   - Develop a mobile app for fighting COVID 19 pandemic.
   - Find methodologies to measure distance between two devices.
   - Help to minimize the spread of COVID 19 virus.

4. The Need for the Project

   Due to the prevailing situation of the country and the world, we need to fight COVID 19 pandemic and save people's lives. Also practicing social distancing is a challenging task to countries like Sri Lanka.
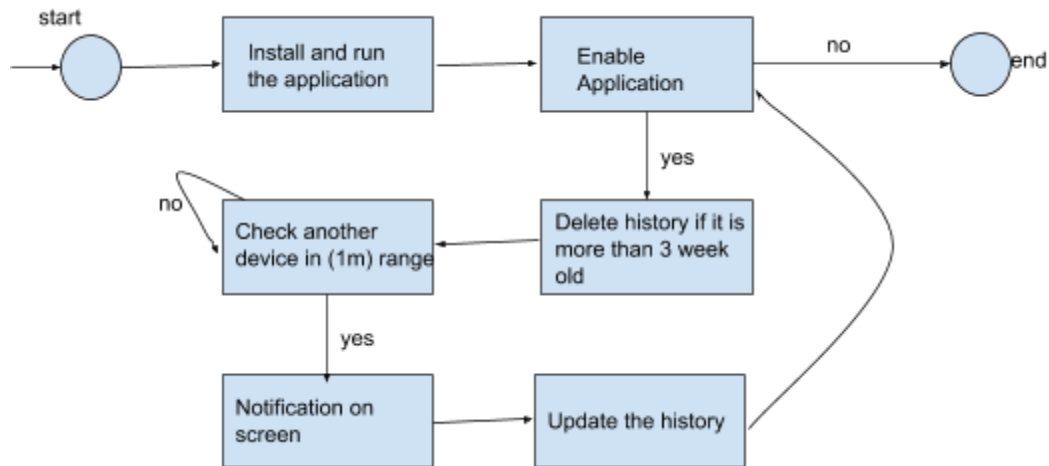
5. Scope of the Project

   The outcome of the project will be an Android application. Which will be able to measure the distance between two devices and trigger alarm if the user is too close to other people around.
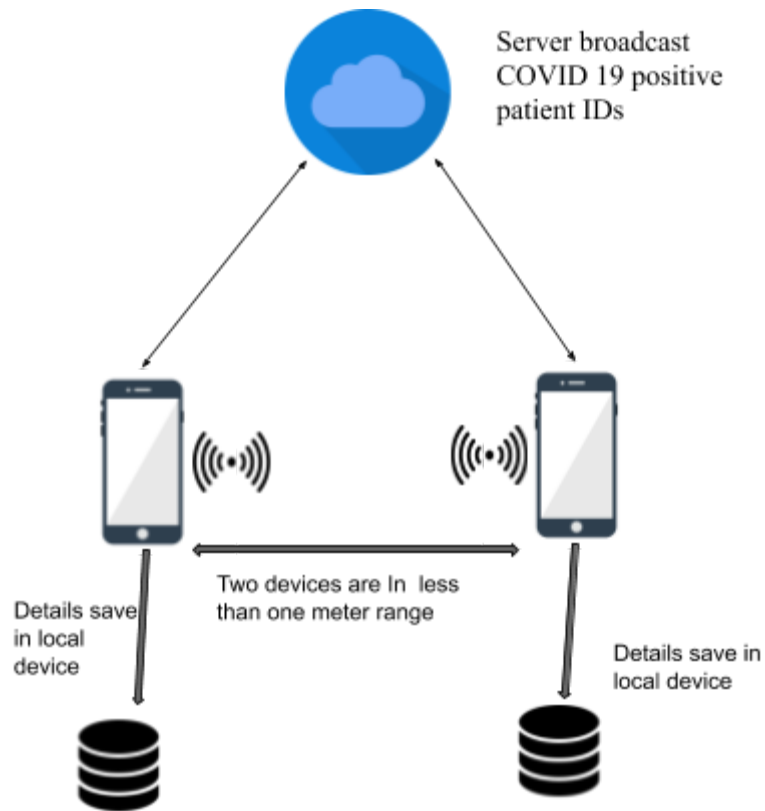
   - Use cases of the system

     1. Users need to run the application.
     2. Users can enable or disable the app.
     3. Users can get a signal when someone came too close
     4. User can see the interaction history

5. User will get notified if one of his/her interaction came positive for COVID 19

- Block Diagrams

start

Install and run the application → Enable Application → no → end

Enable Application → yes → Delete history if it is more than 3 week old

no → Check another device in (1m) range ← Delete history if it is more than 3 week old

Check another device in (1m) range → yes → Notification on screen

Notification on screen → Update the history → Enable Application

In this system, we are planning to have a local database system to store details.Each device will give a unique ID and it will be the user identification.Health Authorities are allowed to broadcast these device ID when they find a COVID-19 patient then all users will notify by notification if they had close contact with patient.

Server broadcast
COVID 19 positive
patient IDs

Two devices are In less
than one meter range

Details save
in local
device

Details save in
local device

6. Deliverables .

- Final deliverable of this project will be an Android application