

CS-5551: Advance Software Engineering

Iteration 1 Report (PG: 7)

25th Feb 2015

Project Goal:

The project goal is to develop a mobile application for getting immediate help when in danger and a crime management system for the users of this app. This system is intended to help people on time and providing them information about the high crime rate area. Moreover, it encourages people to fire a reporting of suspicious behavior or crime.

Objective:

We are going to create a mobile app that will do the following:

- Get help immediately when you feel threatened.
- Reporting the crime.
- View the crime rate in different areas.
- When you enter a high crime rate area, you will be notified by this app.

UML Class Diagram:

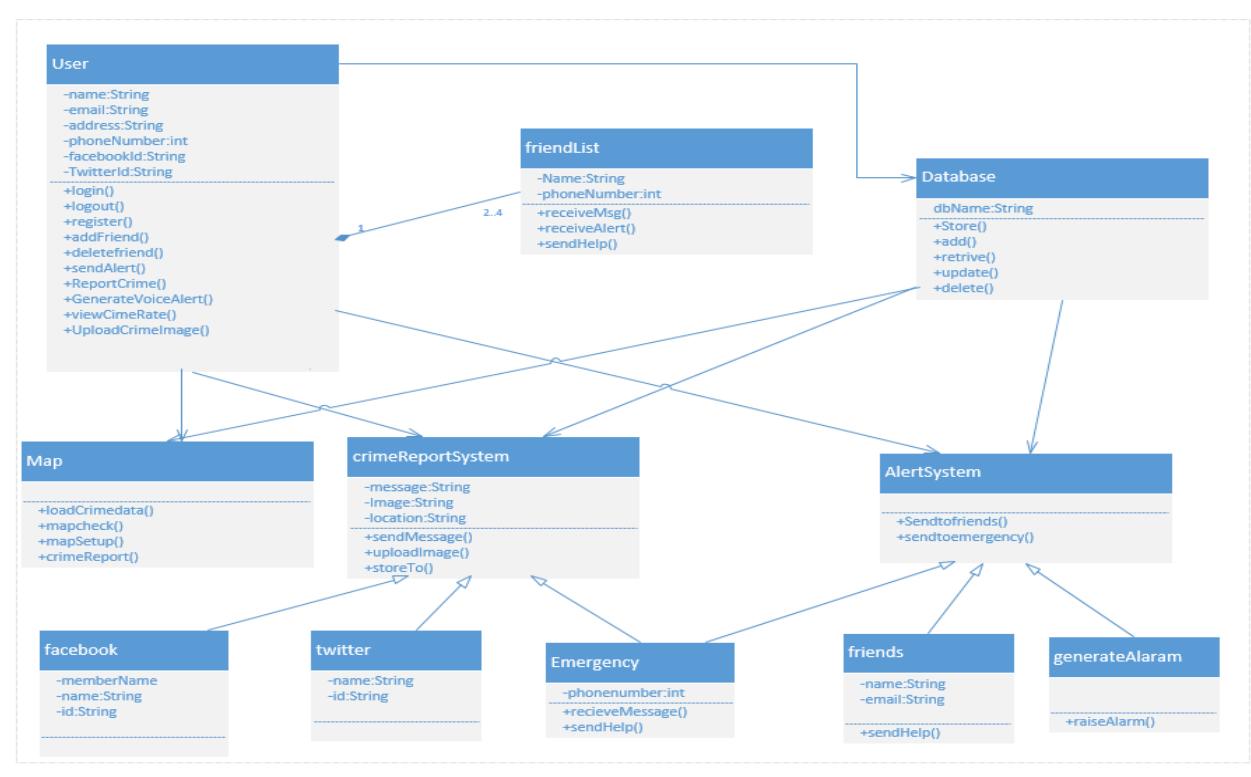


Figure: Class Diagram of entire system

UML Activity Diagram:

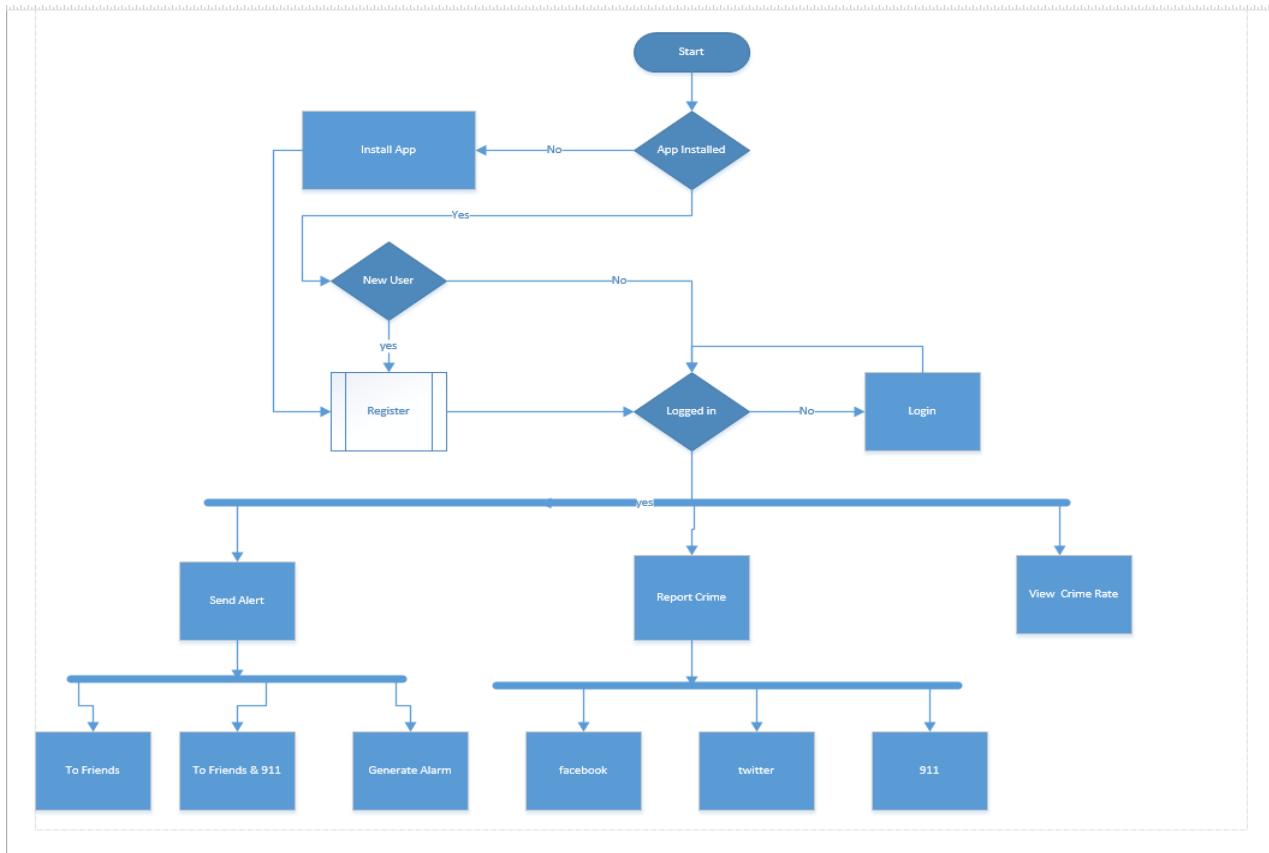


Figure: Activity diagram for the functionalities of the Application.

System Specification:

Existing Services:

- **Geo Location Sharing**

This API is used to share geolocation. This is also used to mark particular place based on latitude, longitude or name etc. This API is supported by most of the browsers and mobile devices.

https://maps.googleapis.com/maps/api/js?v=3.exp&signed_in=true

- **KCMO Crime Data**

With this API we can get crime related data like location, date of crime, type of crime etc. for Kansas City Missouri area.

<https://data.kcmo.org/resource/yu5f-iqbp.json>

- **Twitter API**

This API is used to share content in twitter .

https://twitter.com/intent/tweet?screen_name=twitterapi

New Services to build (SMS Manager)

Service to send SMS to registered friends on alert call

- **Operational Description:**

On clicking alert button SMS is to be sent to registered friends and 911 emergency. Default message and numbers list is sent to the service.

- **Input/output for service**

Input: Phone numbers of friends, Message content to be sent
Output: SMS delivery response.

- **Constraints/exceptions**

Service should always be running.

- **Priorities**

Degree of importance: High priority

Stories: Use case specification template:

Use Case Name	Register to the app
Primary Actor	User
Preconditions	User must have downloaded app
Guarantee (Post Conditions)	It allows user to register in to the app successfully
Main Success Scenario	<ol style="list-style-type: none"> 1. Enter user details like name, phone number, id, twitter, face book and password 2. System sends confirmation message 3. User enters confirmation number 4. User registers maximum 4 friends and minimum 1 5. System sends notification to friends 6. Registration completes
Extensions	<ol style="list-style-type: none"> 1. If any of the inputs given by user is invalid, system asks user to re-enter. 2. If user didn't get confirmation, user can ask the system again 3. If the user enters wrong confirmation number then system asks him to re-enter

Table1: Use case template 1

Use Case Name	Sending Alert
Primary Actor	Alert system
Preconditions	User must be valid registered user to the app
Guarantee (Post Conditions)	Sends alert message to friends and emergency successfully
Main Success Scenario	<ol style="list-style-type: none"> 1. User decides which alert he wants to send 2. User can choose either Red, blue and green buttons 3. When user chooses red button, system sends alert message to friends and emergency 4. When user selects green button, then system sends alert message to registered friends 5. When user selects blue button, then system raises an alarm
Extensions	None
Special Requirements	None

Table2: Use case template 2

Use Case Name	Reporting a Crime
Primary Actor	User
Preconditions	User must be valid registered user to the app
Guarantee (Post Conditions)	User reports crime to the system successfully
Main Success Scenario	<ol style="list-style-type: none"> 1. User decides how he needs to report a crime 2. User uploads image to face book, twitter or emergency
Extensions	None
Special Requirements	None

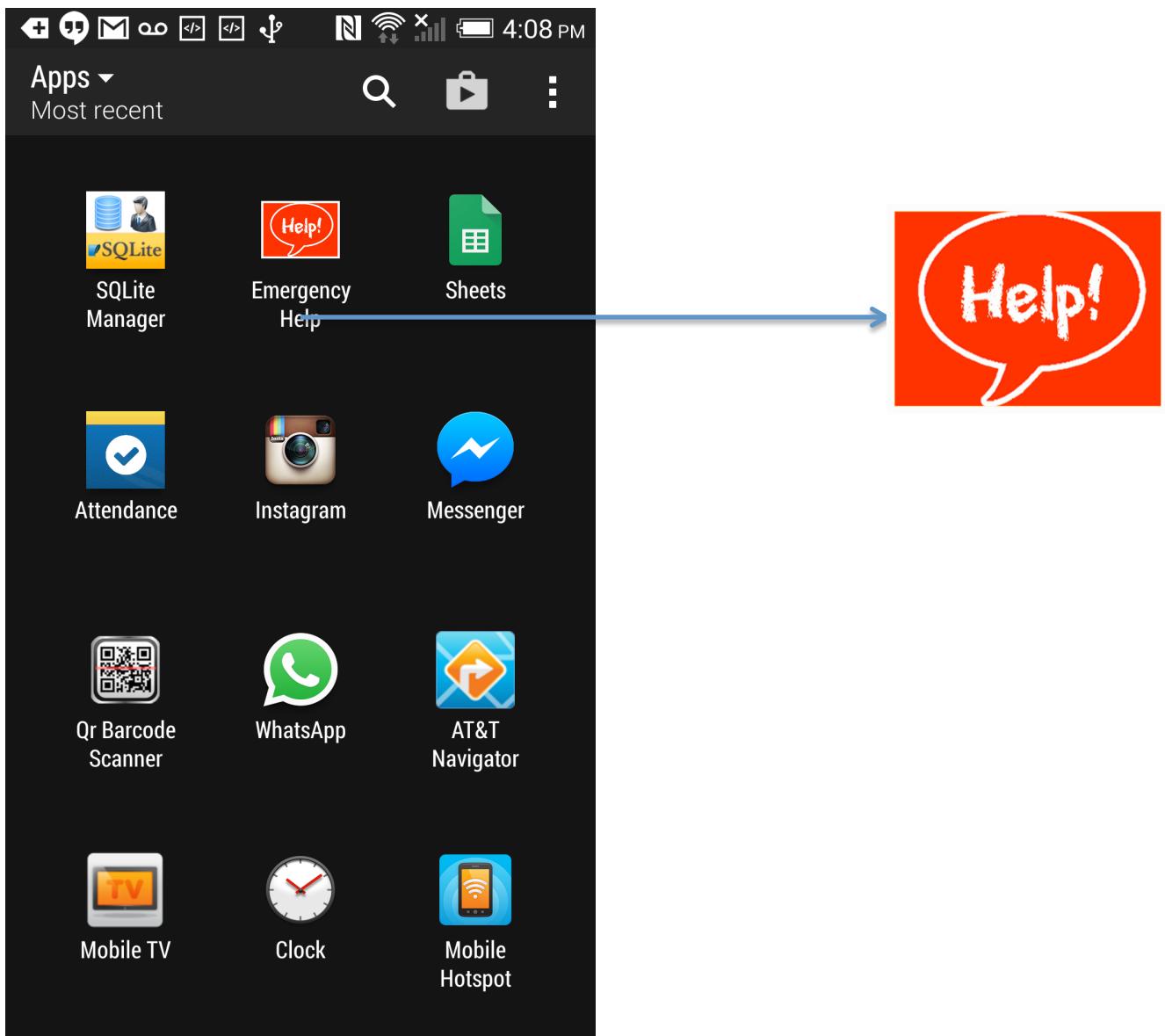
Table3: Use case template 3

Use Case Name	View crime area on Google maps
Primary Actor	User
Preconditions	User must be valid registered user to the app
Guarantee (Post Conditions)	User is allowed to view crime rate
Main Success Scenario	<ol style="list-style-type: none"> 1. User can view crime rate and area in Google maps
Extensions	None
Special Requirements	None

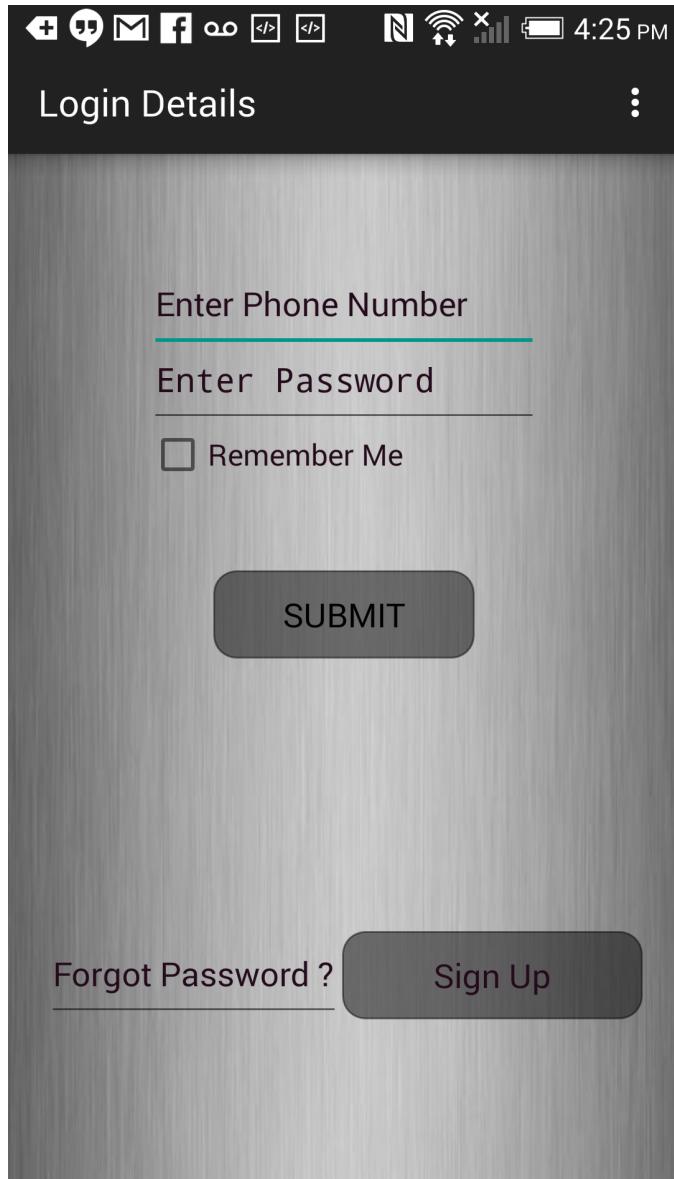
Table4: Use case template 4

Sprint 1 Implementation:

1) Screenshots:

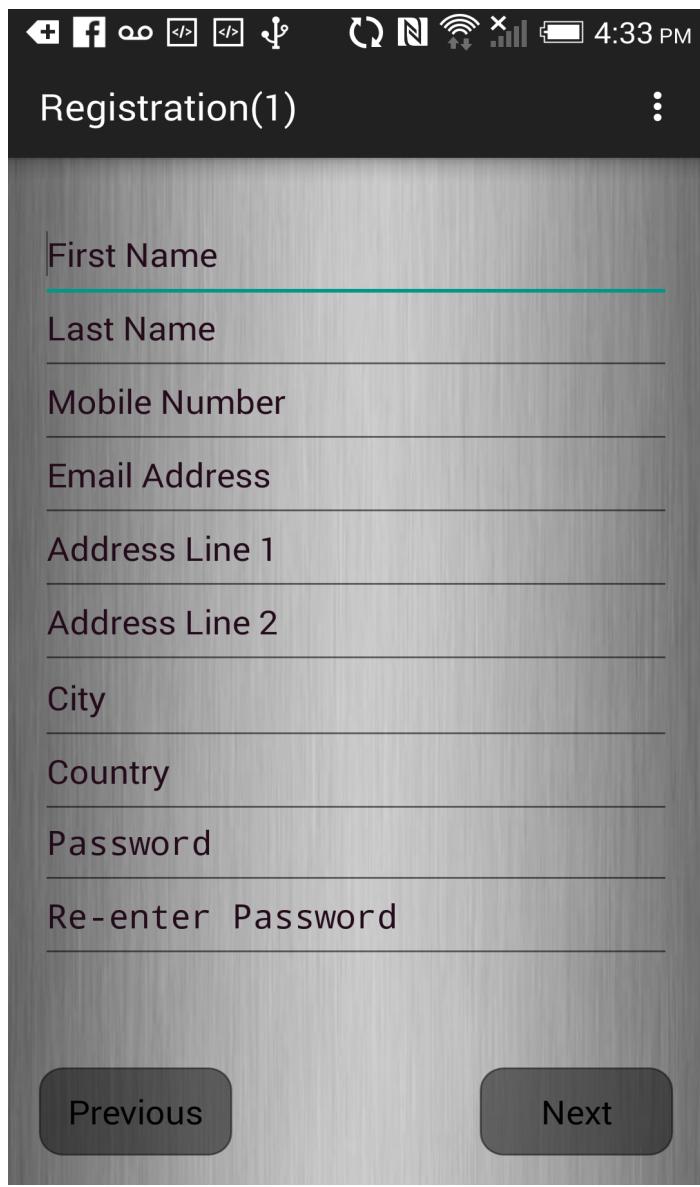


Screenshot 1: Application Icon



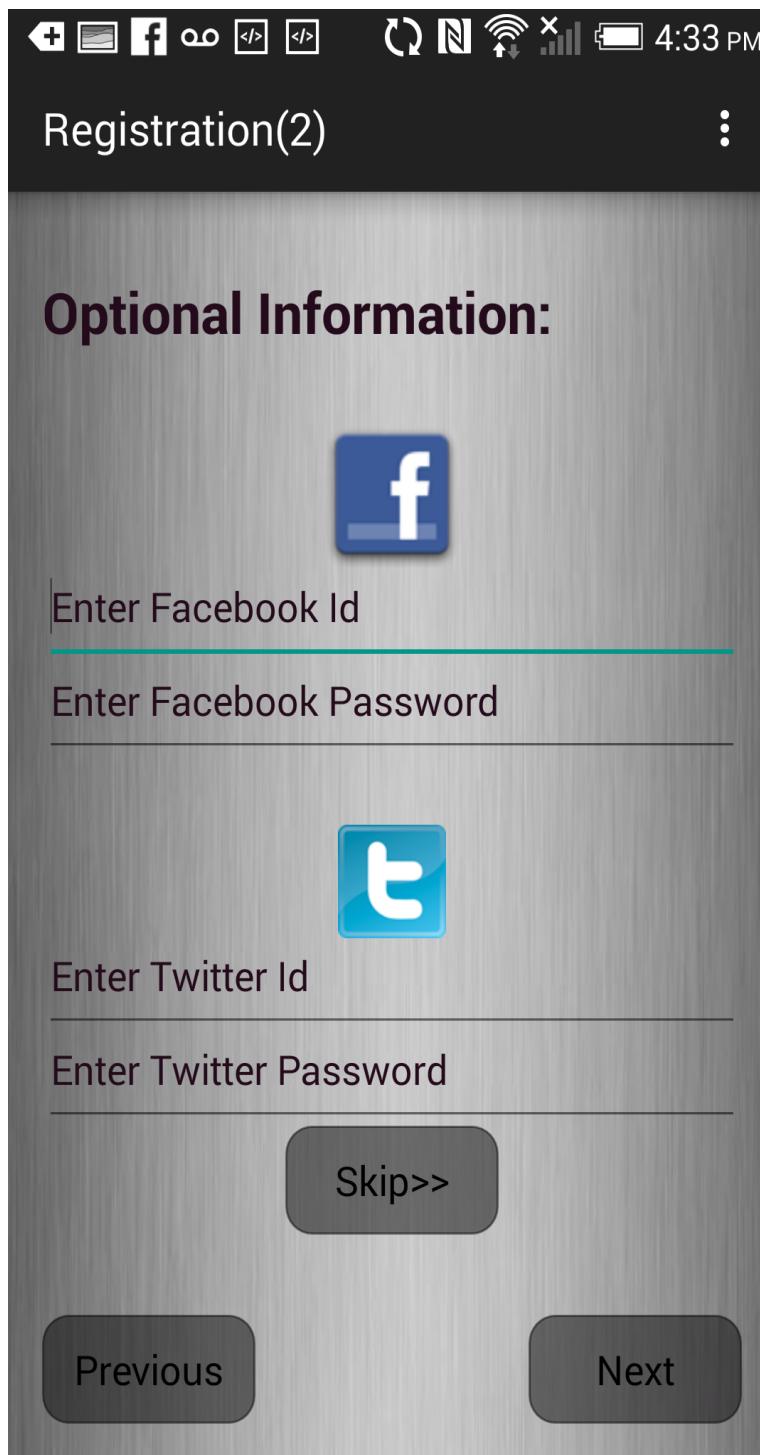
- At the login page, User is asked to enter his/her Mobile No. And password.
- Once user clicks "Submit" button, system will validate it.
- For new users, sign up is there.
- If user wants to remain checked in then "Remember Me" check box is there.
- If user forgets the password, then user can reset the password from Forgot Password link.

Screenshot 2: Login Page



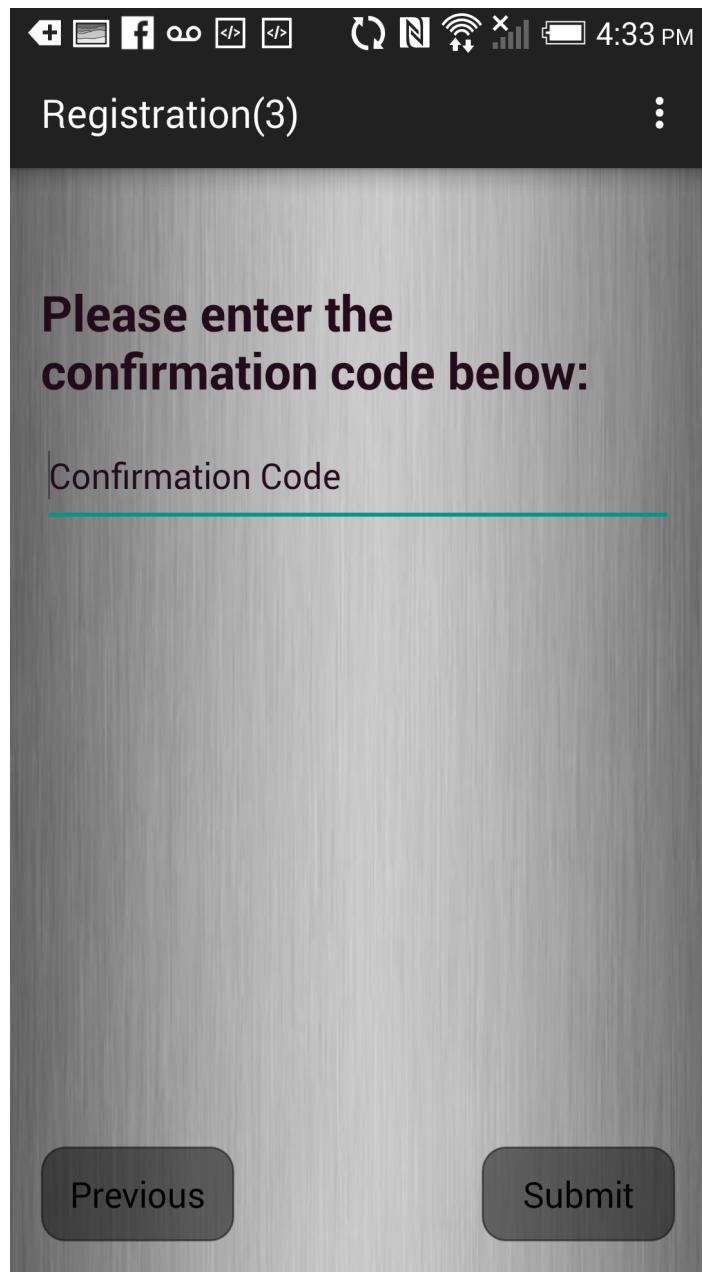
- At the first Registration page, User is asked to enter his/her various details, shown in screenshot.
- System will validate each detail.
- After adding all the details, user clicks on next and moves to second registration page.
- "Previous" Button is there to go to the previous page.

Screenshot 3: Registration (1) Page



Screenshot 4: Registration (2) Page

- At the second Registration page, User is asked to enter his/her facebook and twitter details, shown in screenshot.
- These are optional fields, so user can skip it by clicking on “Skip” button.
- User can click on “Next” button to complete the registration.
- “Previous” Button is there to go to the previous page.



Screenshot 5: Registration (3) Page

- At the last Registration page, User is asked to enter the confirmation code that they will receive on their phones.
- Clicking on “Submit” button completes the registration process.
- “Previous” Button is there to go to the previous page.



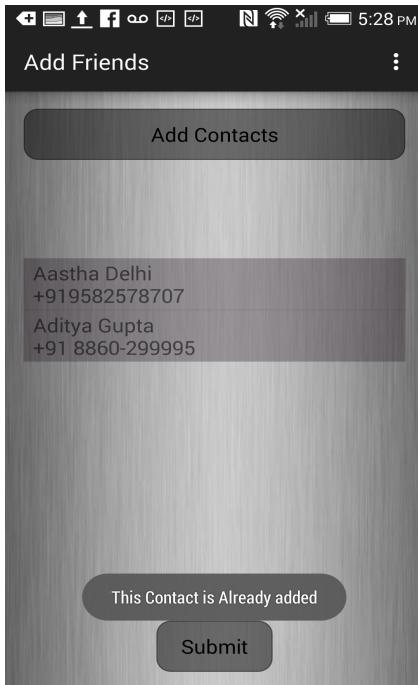
Screenshot 6: Add Contacts Page

- At the Add Contacts page, User is asked to add maximum 4 or minimum 2 contacts.
- On clicking the “Add Contacts” button phone book gets open.



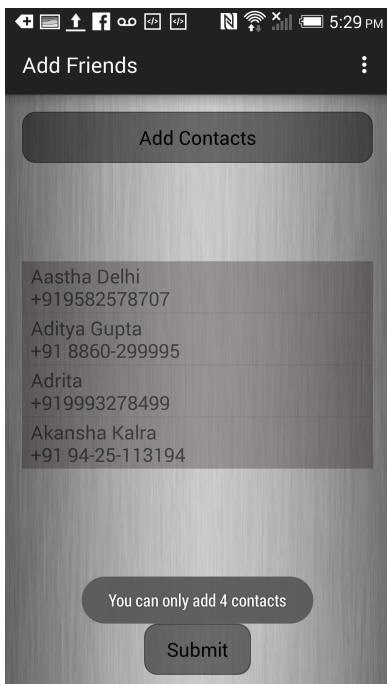
Screenshot 7: Add Contacts Page

- When user adds 2 contacts then “Submit” button appears to submit.



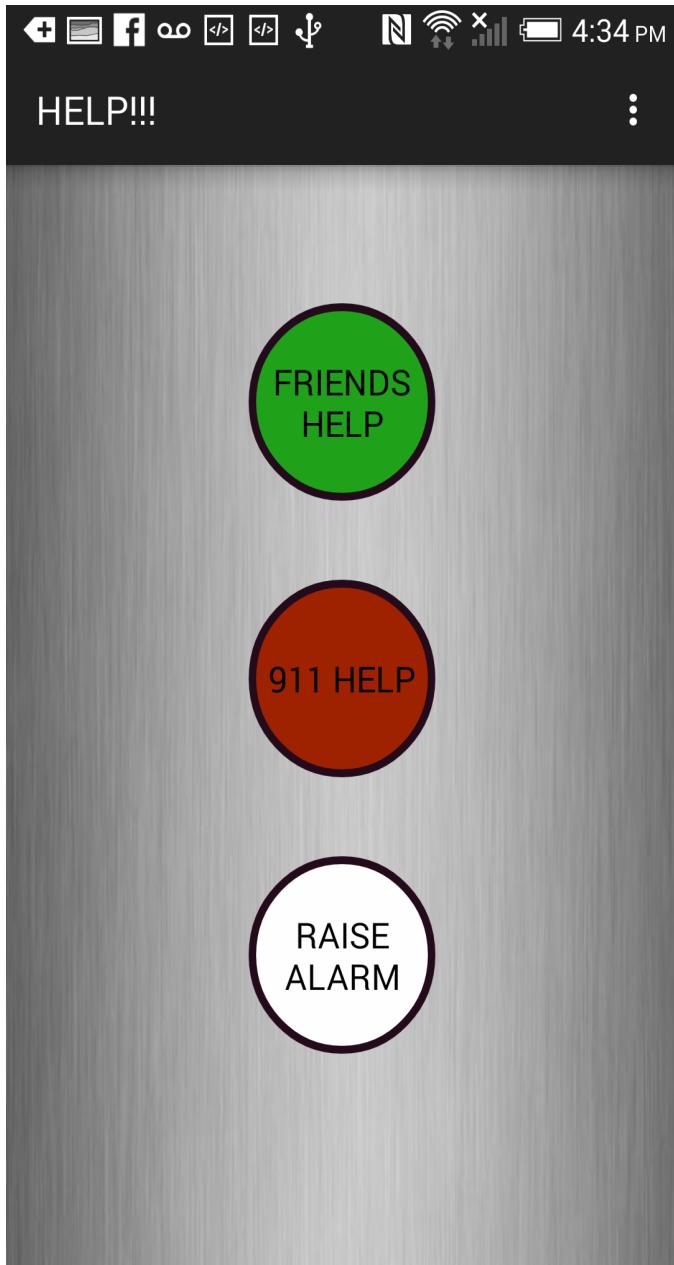
Screenshot 8: Add Contacts Page

- When user tries to add a contact that has already been added then system will give message that “This contact is Already added” as shown in screenshot 8.



Screenshot 9: Add Contacts Page

- When user tries to add more than 4 contacts then system will give message that “You can add only 4 contacts” as shown in screenshot 9.



- At the HELP page, User provided with 3 buttons.
- If user clicks the green button then a help notification is send to the registered friends with GPS location.
- If user clicks the red button then a help notification is send to the registered friends and 911 with GPS location.
- If user clicks the white button then a high-pitched alarm is raised.

2) Sprint 1 scrum do:

#13 As system i should be able to get the current location of the user when red or green button is pressed or when posting the crime and add it to the message when the user is in danger he press red button to send message and when the user wants to report crime he clicks on green button. In both the cases, system tracks and gets the gps location.	Done Tasks 0 Comments	8
#2 As a system i should be able to take input details from the user and validate them when user login in to the app, system validates his/her login details with the data stored in database and allows user to move to next screen if the input is valid else displays an error message	Done Tasks 0 Comments	8
#19 As a system I should display optional information screen This optional information screen takes input as user facebook id and twitter id. This screen is optional and user can skip if he/she doesn't want to provide the details.	Done Tasks 0 Comments	8
#18 As a system I should display Registration screen This is first page displayed for the new user after installing the app. User should input all his/her details into this page. Once the user registers successfully, he is ready to move further with the app.	Done Tasks 0 Comments	8
#17 As a system I should create sqlite db tables Backend data is stored in the SQ lite database and so far we have created 2 tables to store the login details.	Done Tasks 0 Comments	8
#16 Authenticates the user when submit Once the user registers with the app, his/her details are stored in database. When user logs into the app next time, his login credentials are validated with the data base.	Done Tasks 0 Comments	8
#15 As a system i should be able to display login screen once the user registers in to the app, it allows him/her to input login details. user should give his username(mobile number) and password which are mandatory fields.	Done Tasks 0 Comments	8
#4 user give maximum of 4 friends phone numbers As a user i should be able to input maximum of 4 phone numbers. so when the user is in emergency, message is sent to this registered phone numbers. As a system i should send message confirmation message to the phone numbers after successful registration.	Done Tasks 0 Comments	13
#6 As a user i should be able to send message to the registered friends when i pressed green button once the user registers 4 of his friends into the app, a confirmation message is sent to the registered friends when user clicks on green button. This tells the friends that user has registered them to friend list into his app.	Done Tasks 0 Comments	13
#7 As a user i should be able to send message to the registered friends and the emergency number when i press red button when the user of the app is in danger, he/she sends a help message to the his registered friends and the nearest emergency number on click of red button.	Done Tasks 0 Comments	13
#1 As a system i should be able to get user login details and validate them display login screen and get user login details .In case of wrong details entered system asks to re enter the password. System displays forgot password and an email is sent to the registered email account.	Done Tasks 0 Comments Profile Setup gannavarapu	13

3) Worked done by team members:

User Story Number	User Story	Hours Worked	Team Member	Status
1	As a system I should be able to get user login details and validate them.	8 hours	Balaji, Pooja	Done
2	As a system I should be able to take input details from the user and validate them.	4 hours	Sathya, Babitha	Done
4	User gives maximum of 4 friends phone numbers.	25 hours	Pooja, Babitha, Balaji	Done
6	As a user I should be able to send message to the registered friends when I pressed green button.	2 hours	Pooja	Done
7	As a user I should be able to send message to the registered friends and the emergency number when I press red button.	2 hours	Babitha	Done
13	As system I should be able to get the current location of the user when red or green button is pressed or when posting the crime and add it to the message.	5 hours	Pooja, Balaji	Done
15	As a system I should be able to display login screen.	2 hours	Sathya	Done
16	Authenticates the user when submit.	3 hours	Balaji	Done
17	As a system I should create SQLite DB tables.	5 hours	Babitha, Pooja	Done

18	As a system I should display Registration screen.	2 hours	Balaji, Sathya	Done
19	As a system I should display optional information screen.	2 hours	Babitha, Pooja	Done

4) Database Used (SQLite):

SQLite is a relational database management system. In contrast to other database management systems, SQLite is not implemented as a separate process but it is part of the using program. android.database.sqlite contains the SQLite database management classes that an application would use to manage its own private database. In our project we have used SQLite to store data related to user registration and users friends' mobile numbers.

Table Details:

- **Table Name:** userInfo

Columns: mobilenum, password, firstname, lastname, emailid, address1, address2, city, state country.

Description: Stores all user related information.

- **Table Name:** frnsMobile

Columns: usermobile, mobilenum1, mobilenum2, mobilenum3, mobilenum4

Description: Stores mobiles numbers of user's friends.

5) Github link for the source code:

<https://github.com/babithareddy/ProjectPhase>

6) Sprint 2 Planning:

The screenshot shows a ScrumDo Kanban board for Sprint 2, which runs from Jan. 23, 2015, to Jan. 30, 2015. The board has four columns: Todo, Doing, Reviewing, and Done. The Todo column contains five stories, each with a yellow '8' badge indicating the number of tasks. The Doing column is empty. The Reviewing and Done columns are also empty.

Todo	Doing	Reviewing	Done
#14 As a system i should be able to store the data that is uploaded by user 0 Comments - Tasks			
#13 As system i should be able to get the current location of the user when red or green button is pressed or when posting the crime and add it to the message 0 Comments - Tasks			
#12 As a user i should be able to view crime rate in the area of my interest 0 Comments - Tasks			
#11 As a user i should be able to view the crime rate in my current location 0 Comments - Tasks			
#9 As a user i should be able to report crime to the emergency and upload an image related to incident 13			

Bibliography:

- <https://www.crimereports.com/>
- <http://www.slideshare.net/shinyvaibhav/online-crime-management-system-34994738>
- <http://spotcrime.com/mo/kansas+city>
- <http://www.fcc.gov/text-to-911>
- http://www.phonearena.com/news/Android-How-to-share-your-location-and-GPS-coordinates_id36706
- <http://www.pocketmeta.com/share-gps-coordinates-iphone-android-4240/>
- <http://www.way2know.com/projects/e-crime-file-management-system>
- <https://data.kcmo.org/>
- <https://play.google.com/store/apps/details?id=com.CrimeStoppersHouston.android>
- <https://itunes.apple.com/us/app/crimereports/id343636598?mt=8>
- <http://www.sungardps.com/solutions/onesolution/public-safety-justice/rms/>