# First-Aid Helper

The aim of the project is to guide the treatment administer for the first-aid patient. The administer can visit the list of first-aid techniques, can call the emergency services and the concerned doctor to guide the treatment procedure, can share the victim’s spot of injury images to the doctor, can check nearby hospitals on the map. Many doctors want to offer a service during free time. We assume that doctors are registered with us to save lives in emergency cases. Fake doctor registration can be avoided by registering with doctor’s govt license. We use get current time and make contact according to doctor’s availability timings provided during registration.

## Group members

| Name | Banner ID | Email |

| ------------------------------ | --------- | --------------- |

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## Description

**Big C context of First-aid helper app.**

1.The list of treatment techniques informs and make them identify the symptoms and apply first-aid procedure.

2.Provides nearby hospital location, so that administer can take the user to nearest hospital.

3.The app provides the doctor details for contact, in case if the patient is in emergency. The images can be shared to the doctor for further first-aid techniques.

### Users

|  |  |
| --- | --- |
| * Target Region | 1. India. |
| * Target User | 1. The treatment administers / The injured person who needs first-aid. |

### Features

|  |  |
| --- | --- |
| * Camera | 1. Capture images and share to doctor |
| * Maps | 1. User can view nearby hospitals |
| * Call | 1. Call the doctor or emergency services. |

## Libraries

No libraries are imported.

## Requirements

The app requires GPS location, access camera feature, storage feature, call permissions. Accept it. (Android 6.0) and above.

## Installation Notes

No suggestions. Can Install and run the app.

## Final Project Status

List of treatment techniques, near by hospitals and share images, call to doctor are accomplished. Video call feature is not done.

During the start of project, we thought there will be Google Duo API to make video calls. But we found that there are no Duo API’s for video calling.

The next phase of the project

1.App should provide two options login as user/voluntary registration and login as doctor with govt registered id. So that only doctor can instruct administers.

2.The video call implementation will make still easy for doctor to instruct.

### Minimum Functionality

- Feature 1 list of injuries (Completed)

- Feature 2 contact information of doctors (Completed)

### Expected Functionality

- Feature 1 Call to emergency services and the doctor (Completed)

- Feature 2 Can view nearby Hospitals (Completed)

- Feature 3 Can share the victim’s image to the doctor via Email, WhatsApp, etc., (Completed)

### Bonus Functionality

- Feature 1 All the list of injuries are displayed on the view page no need of search bar (Completed)

- Feature 2 The administers details will be sent to doctor with email. So, no need of user logs in for fake detection (Completed)

- Feature 3 Video Call (Not Implemented).

## Code Examples

\*\*\* 1. Sharing the captured image

String item = adapterView.getItemAtPosition(i).toString();  
 Resources resources = getResources();  
 String[] mail=resources.getStringArray(R.array.*emails*);  
 *mailid*=mail[i];  
 sharebutton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
  
  
 File file = savebitmap(*imageBitmap*);  
 if(file!=null){  
 Uri apkURI = FileProvider.*getUriForFile*(  
 getContext(),  
 "com.example.firstaidapp.provider", file);  
 try {  
  
 Log.*d*("error", String.*valueOf*(apkURI));  
 file.setReadable(true,false);  
  
 intent1 = new Intent(Intent.*ACTION\_SEND*);  
 intent1.setFlags(Intent.*FLAG\_ACTIVITY\_NEW\_TASK*);  
 intent1.setType("image/\*");  
 intent1.putExtra(android.content.Intent.*EXTRA\_EMAIL*, new String[]{*mailid*});  
 intent1.putExtra(android.content.Intent.*EXTRA\_SUBJECT*, "Patients Image");  
 intent1.putExtra(Intent.*EXTRA\_STREAM*,apkURI);  
 intent1.putExtra(Intent.*EXTRA\_TEXT*,"Hi Doctor, Need first aid");  
 chooser=Intent.*createChooser*(intent1,"Send Image");  
 startActivity(chooser);  
  
 }catch(Exception e){  
 e.printStackTrace();  
 }}  
 else{  
 Toast.*makeText*(getContext(),"please capture an image and select the doctor", Toast.*LENGTH\_LONG*).show();  
 }  
 }  
 }  
 );  
  
}

String extStorageDirectory = Environment.*getExternalStorageDirectory*().toString();  
OutputStream outStream = null;  
File file = new File(extStorageDirectory+"/Captures/", "screen.png");  
if (!file.exists()) {  
 file.mkdirs();  
  
}  
else {  
 file.delete();  
 file = new File(extStorageDirectory+"/Captures/", "screen.png");  
}  
  
try {  
 outStream = new FileOutputStream(file);  
 bmp.compress(Bitmap.CompressFormat.*PNG*, 100, outStream);  
 outStream.flush();  
 outStream.close();  
 MediaStore.Images.Media.*insertImage*(getActivity().getApplicationContext().getContentResolver(), file.getAbsolutePath(), file.getName(), file.getName());  
} catch (Exception e) {  
 e.printStackTrace();  
 return null;  
}  
return file;

We encountered problem when converting the image into bitmap format.

2.Faced problems while migrating to andriodx.

3.Faced problems while formatting the url to match with the googleplaces api format.

StringBuffer hospitalurl=new StringBuffer("https://maps.googleapis.com/maps/api/place/nearbysearch/json?");  
hospitalurl.append("location="+*latitude*+","+*longitude*);  
hospitalurl.append("&radius=1000");  
hospitalurl.append("&type=hospital");  
hospitalurl.append("&key="+"AIzaSyB0Oos0pREK9M5PrTPuS6G19Zsdg\_PEo1M");  
url=hospitalurl.toString();

```

## Functional Decomposition

A screenshot of a social media post

Description automatically generated

We use only view and Controller; the app doesn’t require model as it doesn’t store any data.

The View and Controller interacts with each other.

Controller:

Mainactivity-stores the fragments.

[TreatmentMethodsFragment, Detail Activity]- displays list of treatment methods.

[CallDoctorsFragment, Call Activity]- displays list of specialized doctors

[PhotoFragment]- The administer can share images to doctor

[NearbyHospitalFragment, Display\_hospitals get current location, GetNearbyHospitals shows nearby hospitals]- shows nearby hospitals

About Us -Information about the developers.

Views are the interface for mobile app users. The layouts are in .xml format. Aboutus, activity\_detail, call\_activity, call\_map, doctorslist, hospitals\_nearby, learn\_list, navheader, recyclerview, upload\_photo.

## High-level Organization

A screenshot of a cell phone

Description automatically generated

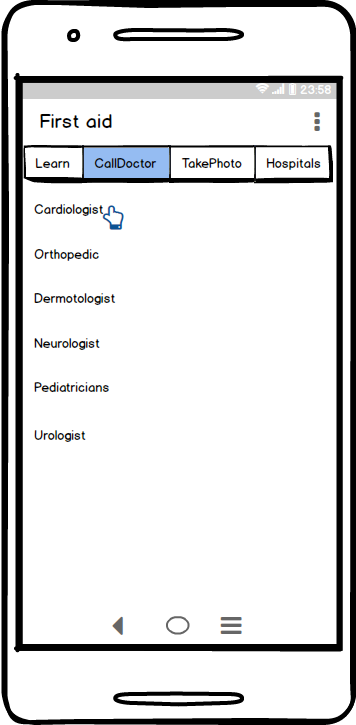
## Clickstreams

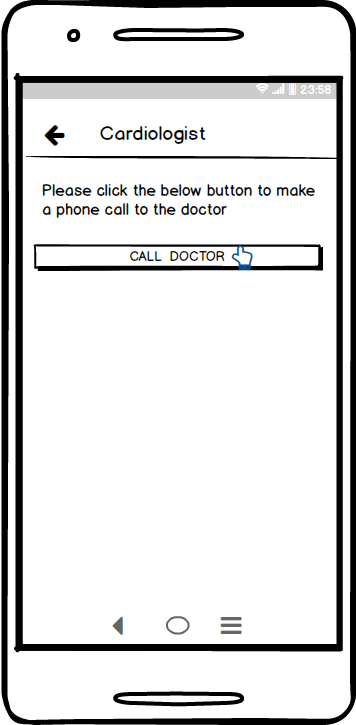
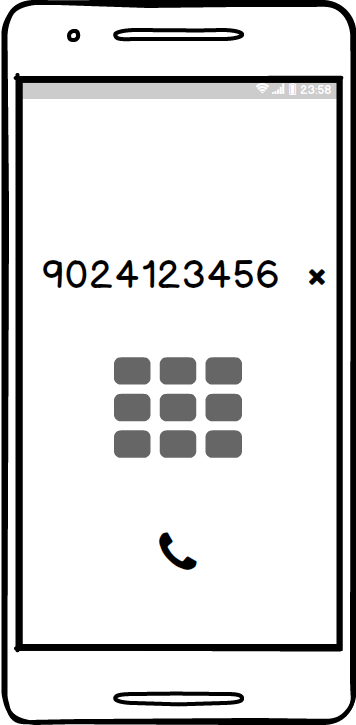
A screenshot of a cell phone

Description automatically generated A screenshot of a cell phone

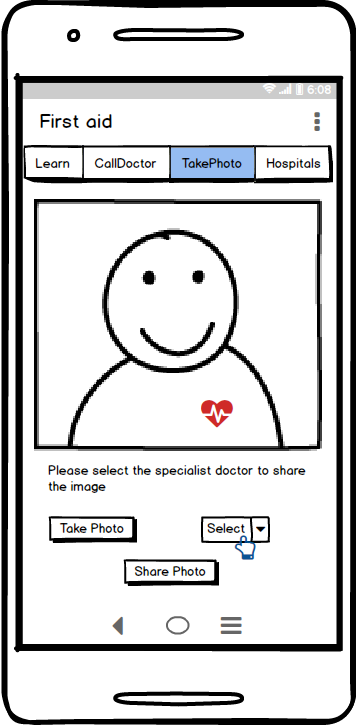
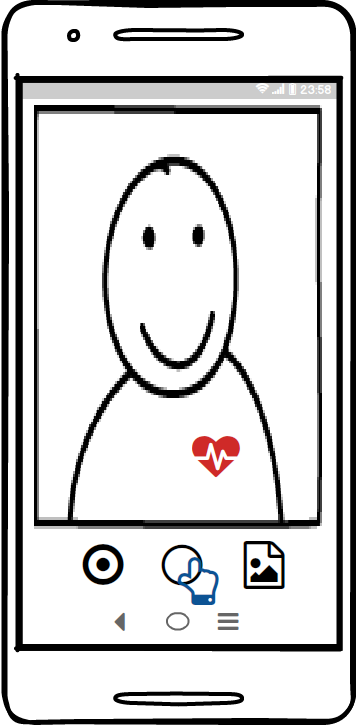
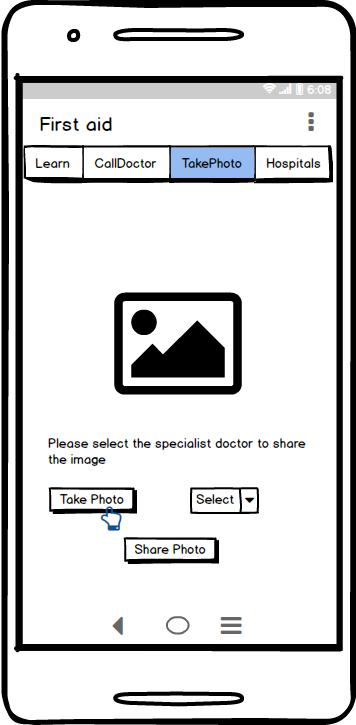
Description automatically generated

**On Clicking Broken Bone**



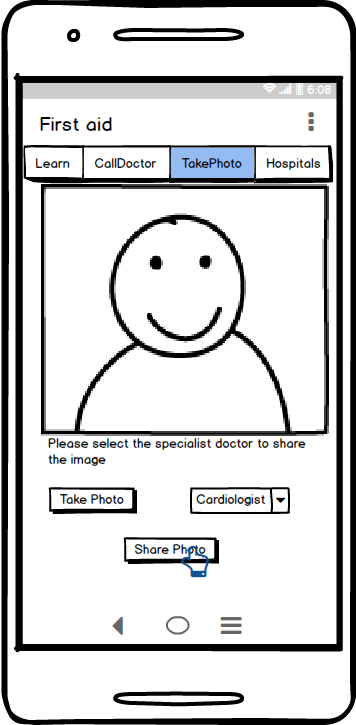
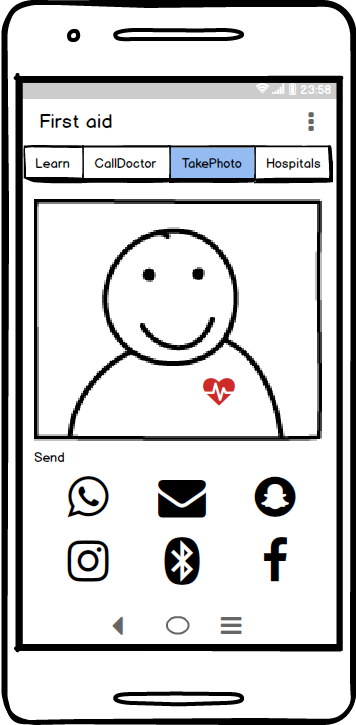
 

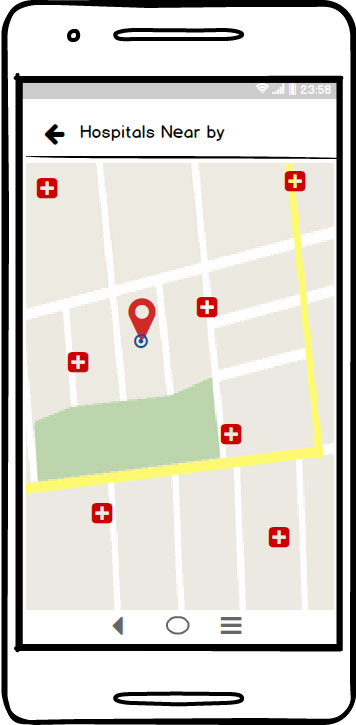
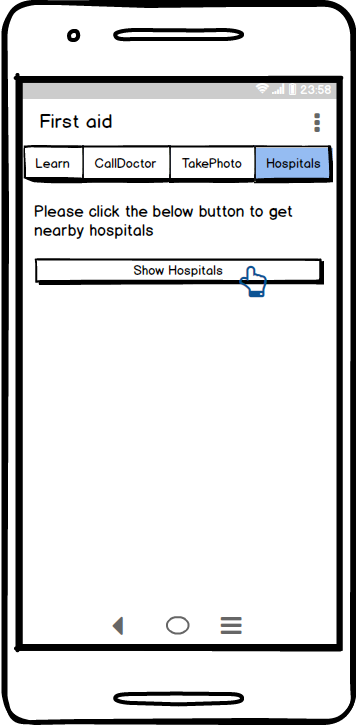
**On Clicking Cardiologist On Clicking Call Doctor**



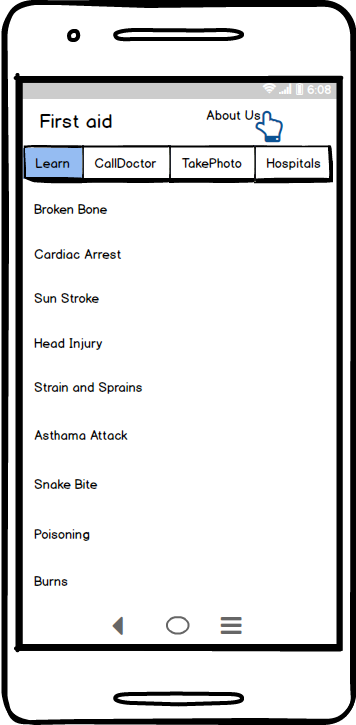
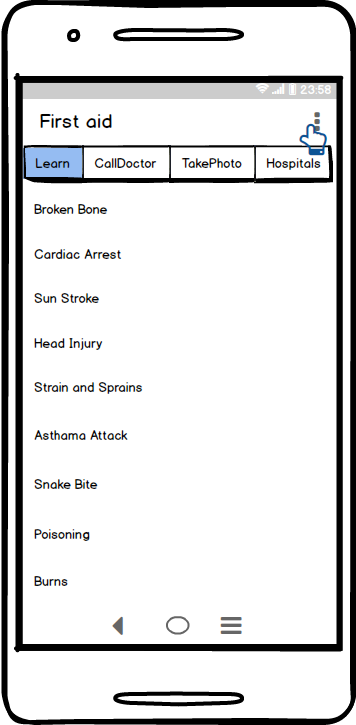
**On Clicking Take Photo On Clicking Save image**

**On Clicking Select Doctor**

 **On sharing** 



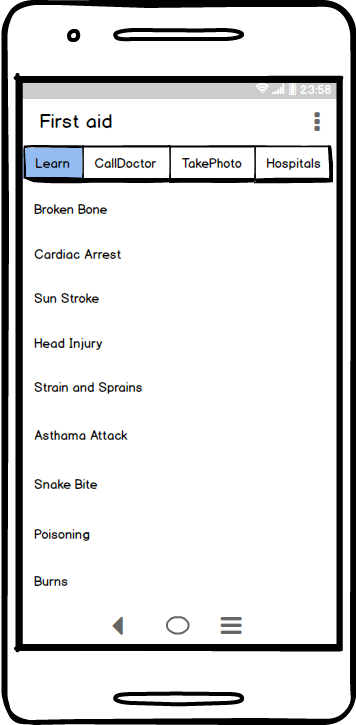
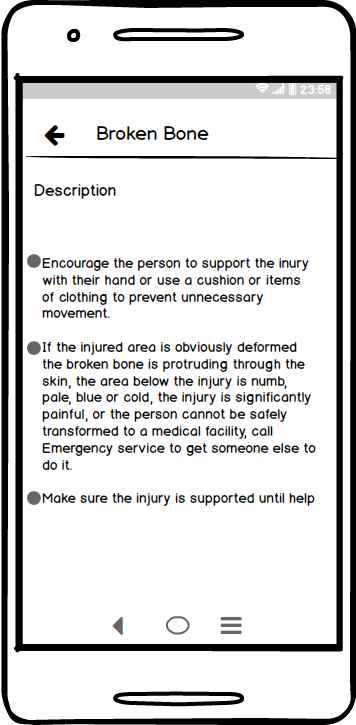
**On Clicking Show Hospitals**



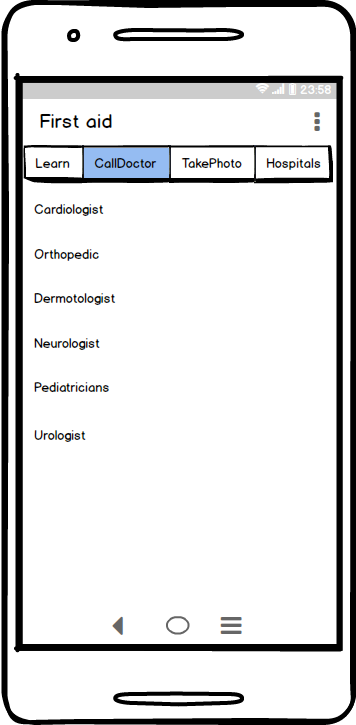
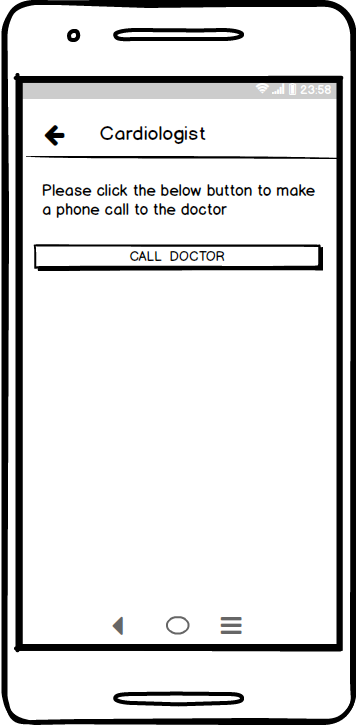
**On Clicking Vertical Ellipses will show About us**

**On Clicking About us will show developers information**

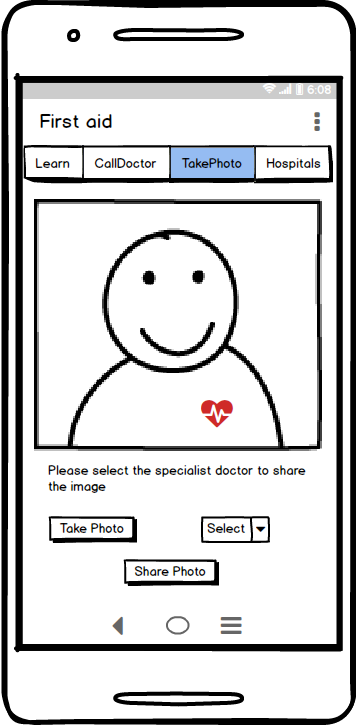
## Layout

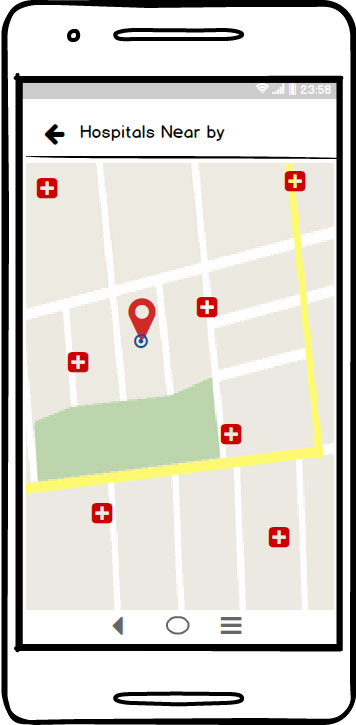
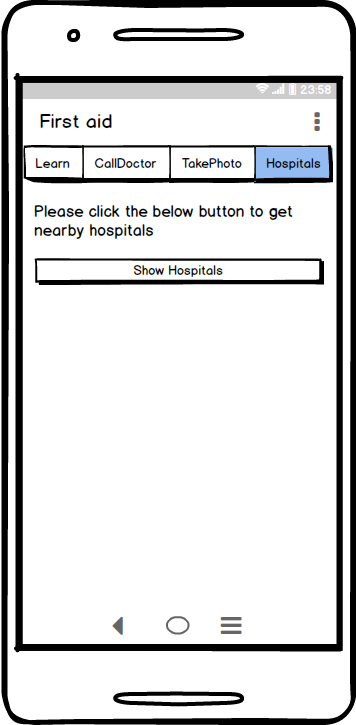
**Fig1.Treatment-Methods**  **Fig 2. first-aid technique**

**Fig3. Doctor Specialization**  **Fig 4. Call Cardiologist.**

**Fig5.Before Taking Photo**  **Fig 6. While Sharing Photo**



**Fig 7. Hospitals**  **Fig 8. Nearby Hospitals**

## Implementation

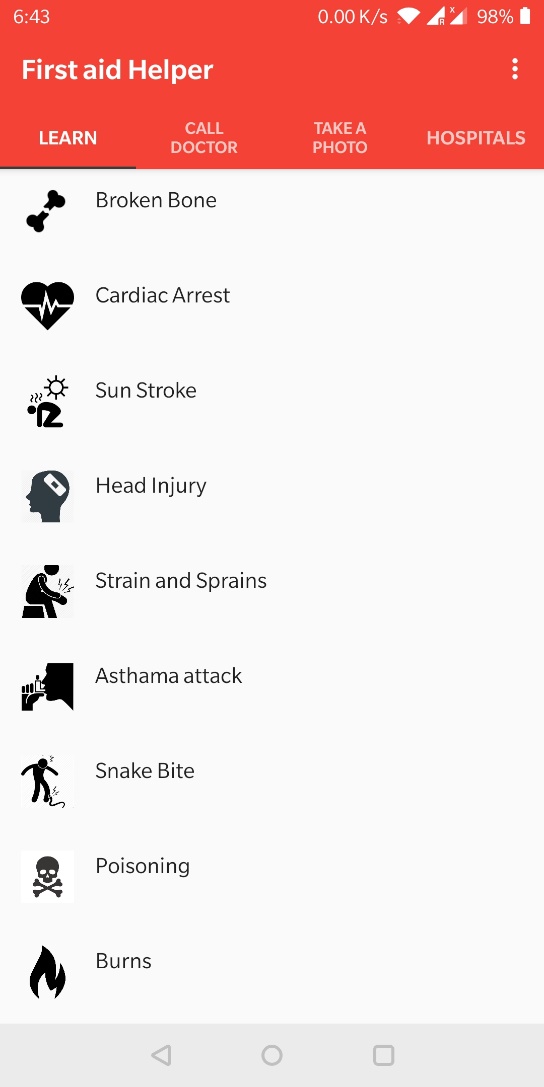
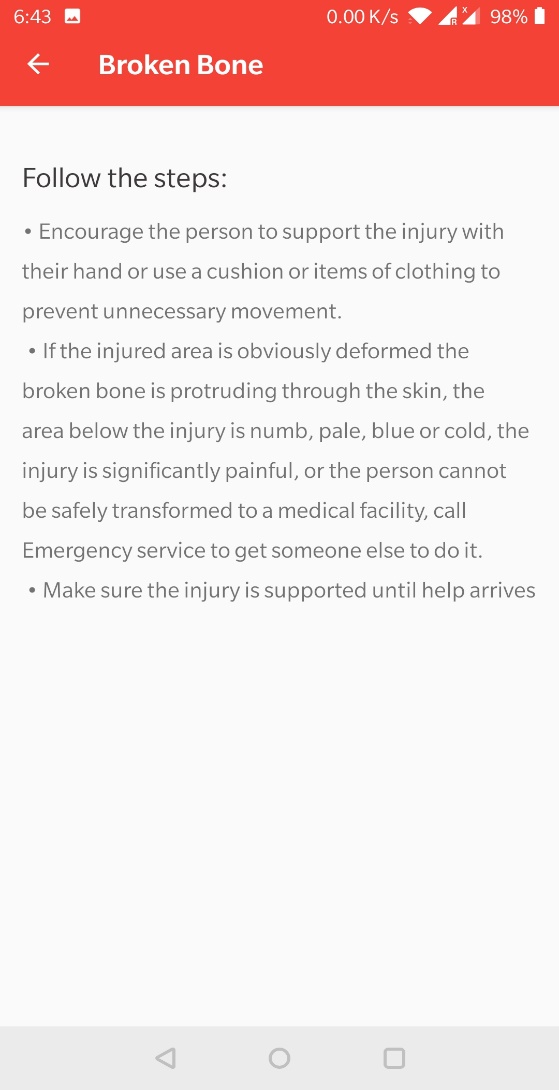
 

Fig 1. Learn Treatment Techniques 2.Broken Bone Procedure

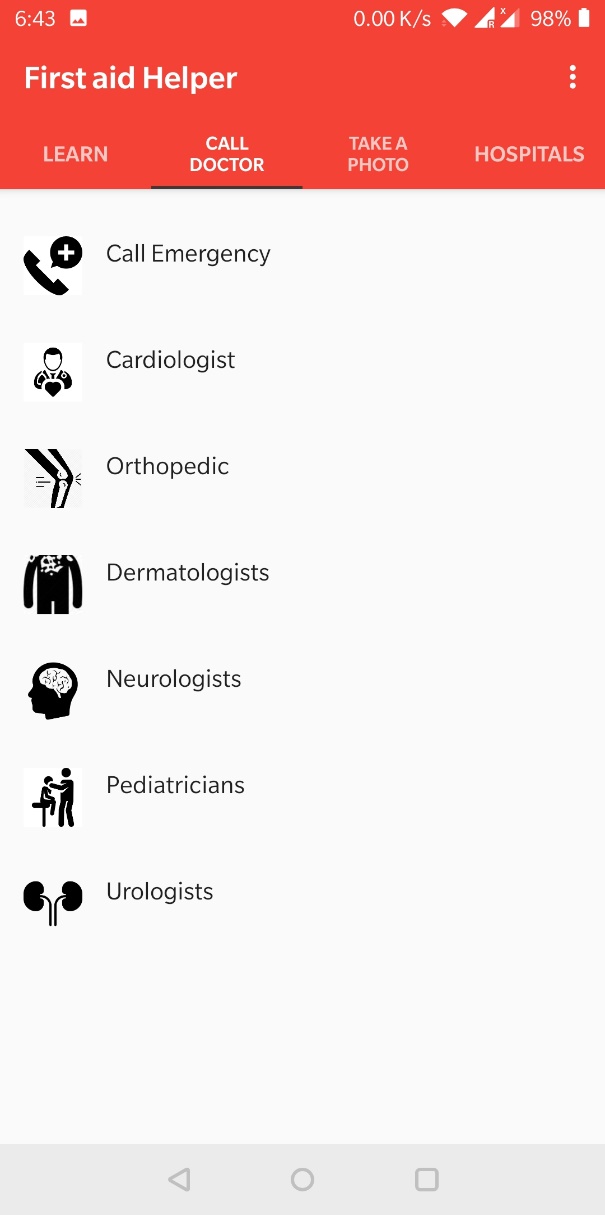
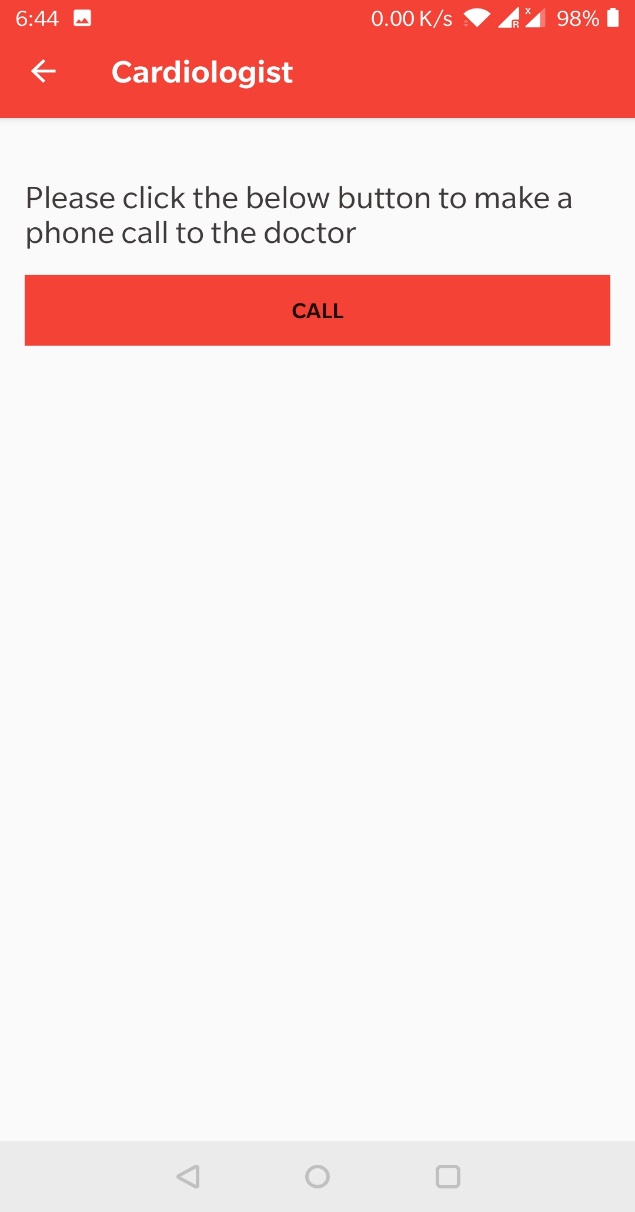
 

Fig 3 Fig 4

3.List of Specialized Doctors and emergency contact

4.Making a call to cardiologist.

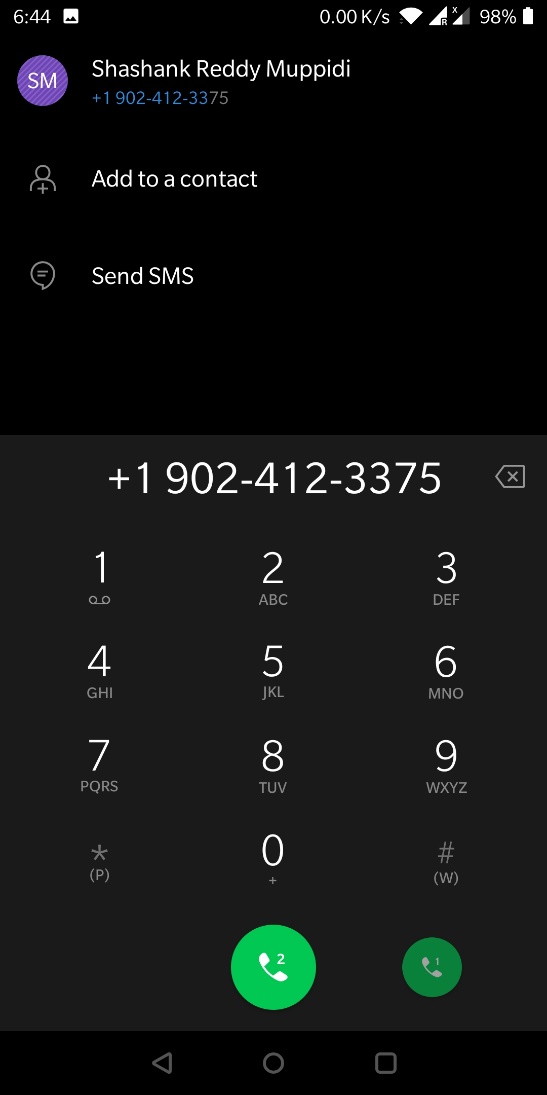
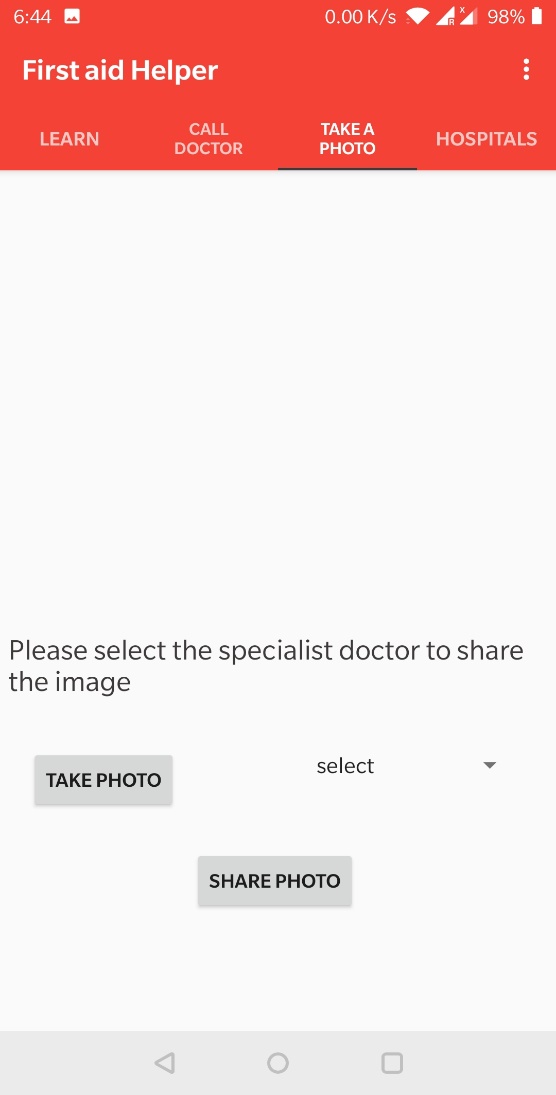
 

Fig 5. Call directory Fig 6. Take Photo

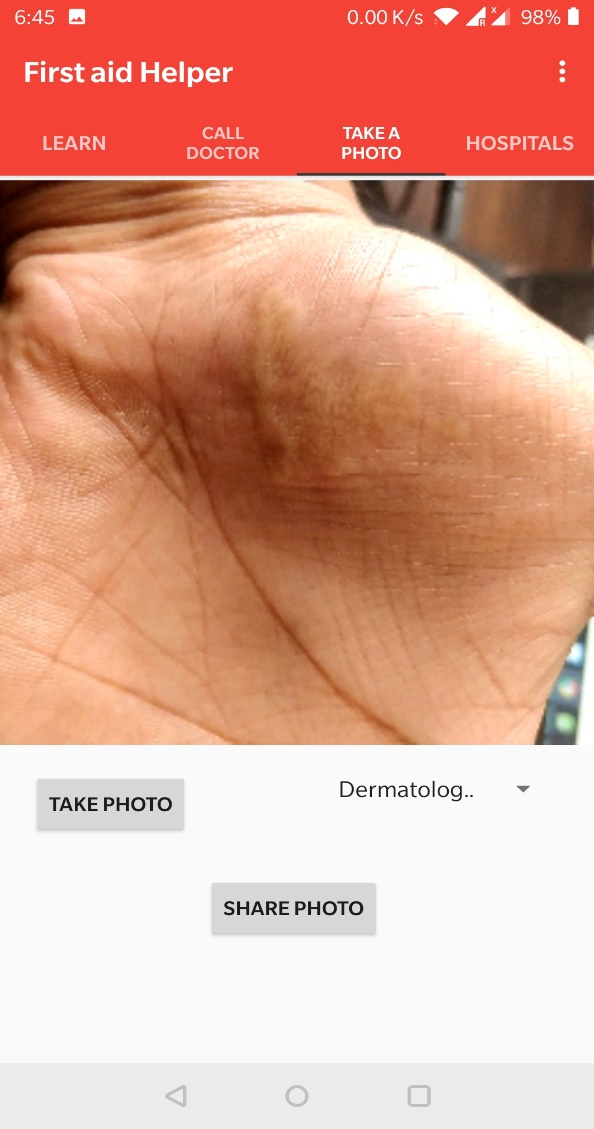
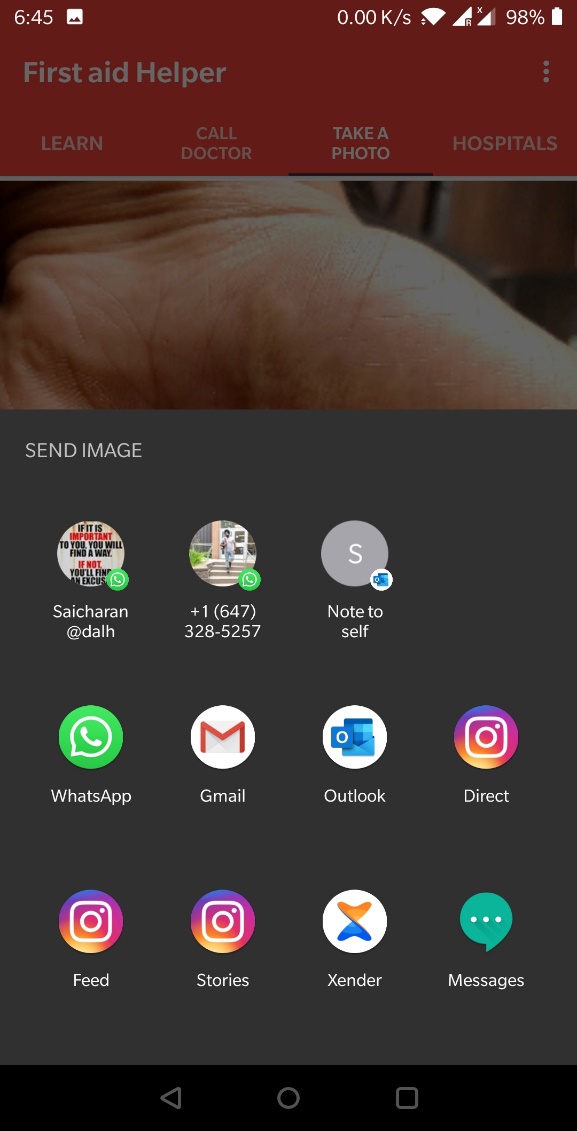
 

Fig 7. Share Photo fig 8. Select app to share

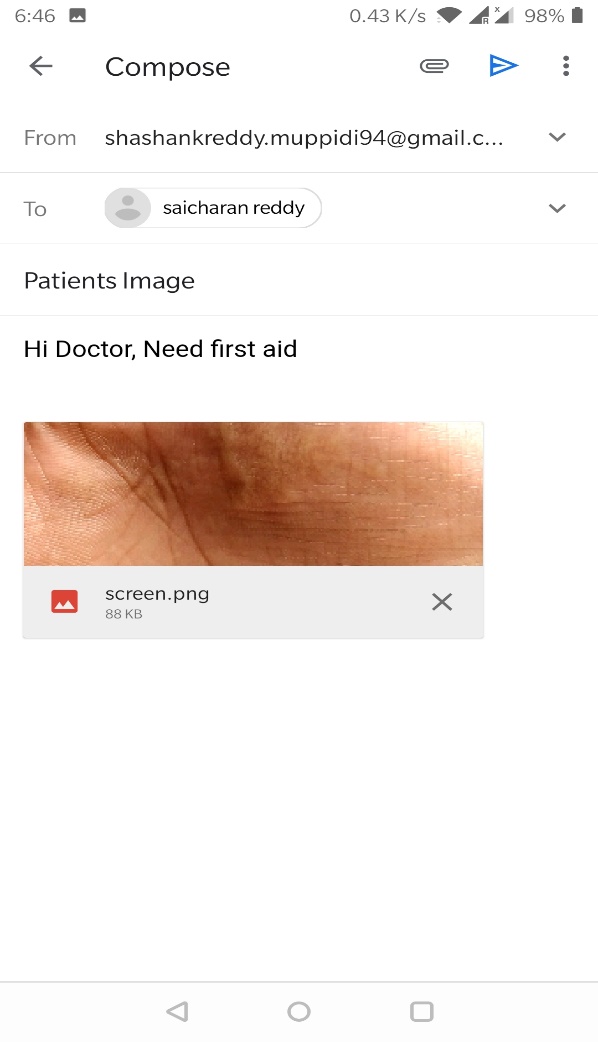
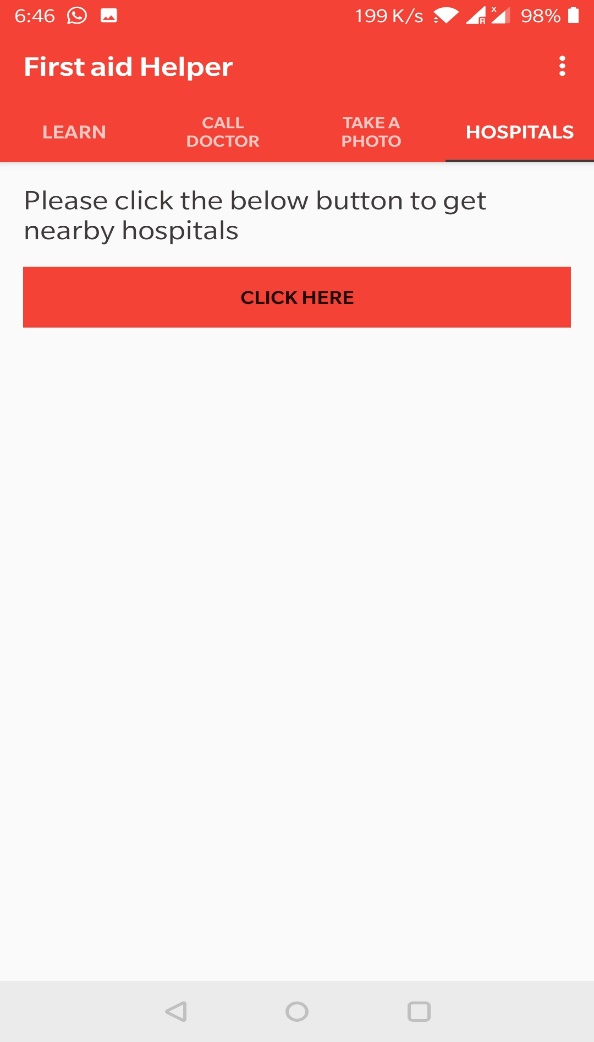
 

Fig 9. Sending via Email. Fig 10. Hospitals

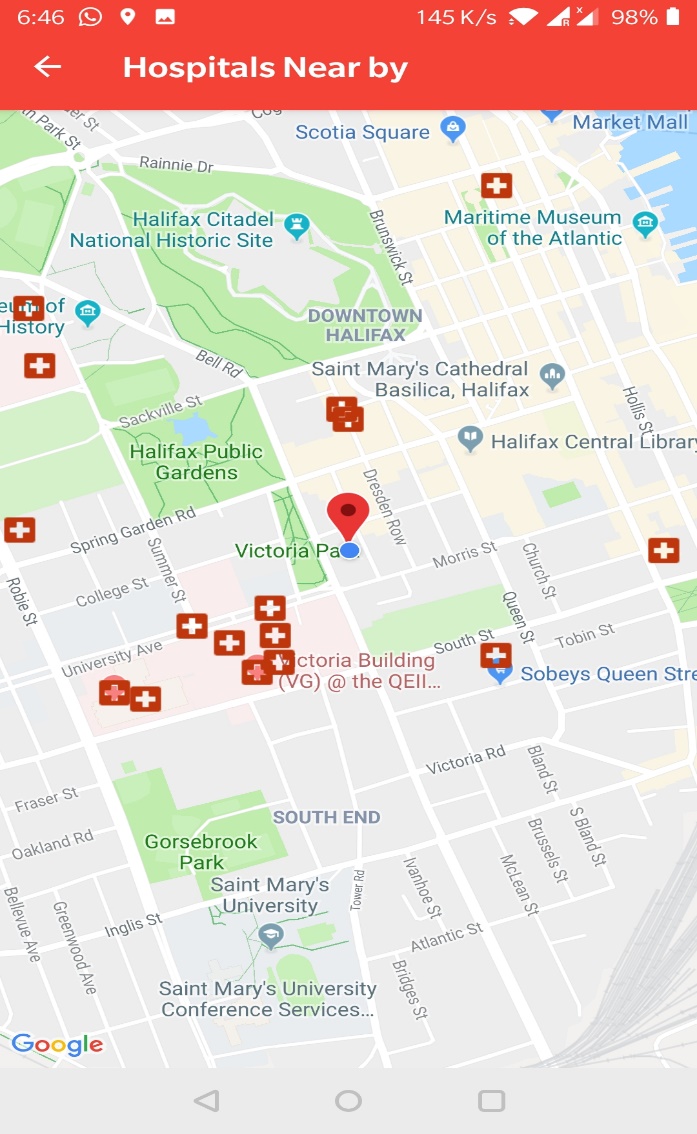


Fig 11. Show nearby hospitals

## Future Work

Future work is to advertise the app and make doctors to register for services, implement video calling.

## Sources

Use IEEE citation style. Some examples:

[1]"Place Searches  |  Maps JavaScript API  |  Google Developers", *Google Developers*, 2019. [Online]. Available: https://developers.google.com/maps/documentation/javascript/examples/place-search. [Accessed: 25- Jul- 2019].

[2]"Google Places API Android Studio Tutorial 07 Show Nearby Places Google Maps Nearby Places API Key", *YouTube*, 2019. [Online]. Available: https://www.youtube.com/watch?v=Iz4y0ofVTk4. [Accessed: 25- Jul- 2019].

[3]*Dal.brightspace.com*, 2019. [Online]. Available: https://dal.brightspace.com/d2l/le/content/97458/viewContent/1339158/View. [Accessed: 25- Jul- 2019].

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[5]"Intent  |  Android Developers", *Android Developers*, 2019. [Online]. Available: https://developer.android.com/reference/android/content/Intent. [Accessed: 25- Jul- 2019].

[6]"Select Current Place and Show Details on a Map  |  Maps SDK for Android  |  Google Developers", *Google Developers*, 2019. [Online]. Available: https://developers.google.com/maps/documentation/android-sdk/current-place-tutorial. [Accessed: 25- Jul- 2019].

[7] C. Cafe, “Google Places API Android Studio Tutorial 07 Show Nearby Places Google Maps Nearby Places API Key,” YouTube, 18-Jul-2018. [Online]. Available: https://www.youtube.com/watch?v=Iz4y0ofVTk4. [Accessed: 25-Jul-2019].

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[9] Play.google.com, 2019. [Online]. Available: https://play.google.com/store/apps/details?id=com.cube.gdpc.can&hl=en\_CA. [Accessed: 25- Jul- 2019].

[10] "Material Design for Android | Android Developers", Android Developers, 2019. [Online]. Available: https://developer.android.com/guide/topics/ui/look-and-feel. [Accessed: 25- Jul- 2019].