Visvesvaraya Technological University,Belagavi–590010

MOBILE APPLICATION DEVELOPMENT
MINI PROJECT REPORT
ON
NAARI RAKSHAK

Submitted by

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Under the guidance of

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2020-2021

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CERTIFICATE

This is to certify that the Mini project entitled ***" NAARI RAKSHAK "*** *is a bonafide work carried out by*

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Students of Sixth semester B.E. Computer Science & Engineering, and submitted as a part of the course Mobile Application Development with Mini Project (18CSMP68), during the academic year 2021-2022.

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Project Guide	**Head of the Department**

Name of the Examiners	**Signature with Date**
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2. ----------	2. ----------

ABSTRACT

The project is “NAARI RAKSHAK” on women safety app using Android Studio. It is an user interactive project where the user can send emergency messages and alert her family or friends about her emergency.

The safety of women is a concern of increasing urgency in India and other countries. In today's world, people using smartphones have increased rapidly and hence, a smart phone can be used efficiently for personal security or various other protection purposes. This application aims to ensure women safety.

Women safety app is a safety app that allows the user to create their own safety network and take care of themselves. The app is about safety/awareness & makes the user safe & confident. It is easy to use because of its user-friendly UI. A message will be sent along with the live location and the family member or friends with the first preference will receive a call.

ACKNOWLEDGEMENT

We dedicate this page to acknowledge and thank those responsible for the shaping of the project. Without their guidance and help, the experience while constructing the dissertation would not have been so smooth and efficient.

We are extremely thankful to our Director, **Rev. Fr Wilfred Prakash D'Souza**, our **Principal Dr Rio D'Souza**, and Assistant Director, **Rev. Fr Alwyn Richard D'Souza** for their support and encouragement.

We owe our profound gratitude to **Dr Sridevi Saralaya, Head of the Department,** Computer Science and Engineering, whose kind consent and guidance helped us to complete this work successfully.

We sincerely thank **Ms Shravya Shetty, Assistant Professor**, Department of Computer Science and Engineering for her guidance and valuable suggestions which helped us to complete the project.

We would like to thank all our Computer Science and Engineering staff members who have always been with us extending their support, precious suggestions, guidance and encouragement throughout in all possible ways.

We also extend our gratitude to our friends and family members for their continuous support.

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CHAPTER 1 - INTRODUCTION

Women's safety is a big concern which has been the most important topic till date. Women safety matters a lot whether at home, outside the home or working place. Most of the women of various ages, till this day are being subjected to violence, domestic abuse, and rape. As ladies ought to travel late at night generally, it's necessary to remain alert and safe.

Most of the females these days carry their smartphone with them, so it is necessary to have at least one of the personal safety apps installed. Such a security app for ladies will definitely facilitate in a way or the opposite.

Women Safety App is a user-friendly application that can be accessed by anyone who has installed it in their smartphones. In this system the user needs to feed contact numbers, in case of emergency the system sends SMS and calls on one of the numbers feeded into the system with the location. It also provides Helpline numbers. This features for both everyday safety and real emergencies, making it an ultimate tool for all.

Our intention is to provide you with the fastest and simplest way to contact your nearest help.

CHAPTER 2 - ABOUT ANDROID STUDIO

Android Studio is the official integrated development environment (IDE) for Google's Android operating system, built on JetBrains' IntelliJ IDEA software and designed specifically for Android development. It is available for download on Windows, macOS and Linux based operating systems or as a subscription-based service in 2020. It is a replacement for the Eclipse Android Development Tools (E-ADT) as the primary IDE for native Android application development.

Android Studio was announced on May 16, 2013, at the Google I/O conference. It was in the early access preview stage starting from version 0.1 in May 2013, then entered beta stage starting from version 0.8 which was released in June 2014. The first stable build was released in December 2014, starting from version 1.0. On May 7, 2019, Kotlin replaced Java as Google's preferred language for Android app development. Java is still supported, as is C++.

The following features are provided in the current stable version:

- Gradle-based build support
- Android-specific refactoring and quick fixes
- Lint tools to catch performance, usability, version compatibility and other problems
- ProGear integration and app-signing capabilities
- Template-based wizards to create common Android designs and components
- A rich layout editor that allows users to drag-and-drop UI components, option to preview layouts on multiple screen configurations
- Support for building Android Wear apps
- Built-in support for Google Cloud Platform, enabling integration with Firebase Cloud Messaging (Earlier 'Google Cloud Messaging') and Google App Engine
- Android Virtual Device (Emulator) to run and debug apps in the Android studio.

CHAPTER 3 - DESIGN AND IMPLEMENTATION

3.1 XML Layout Design

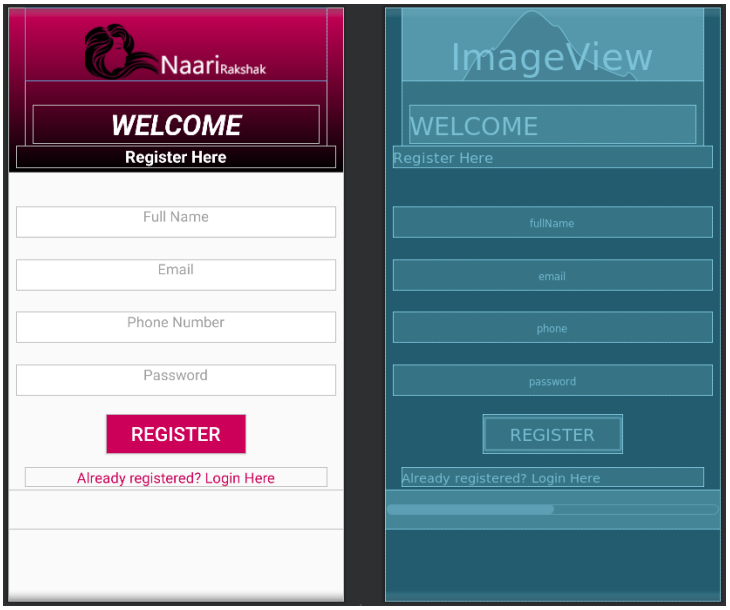

Fig 3.1.1 : Registration Page XML Layout

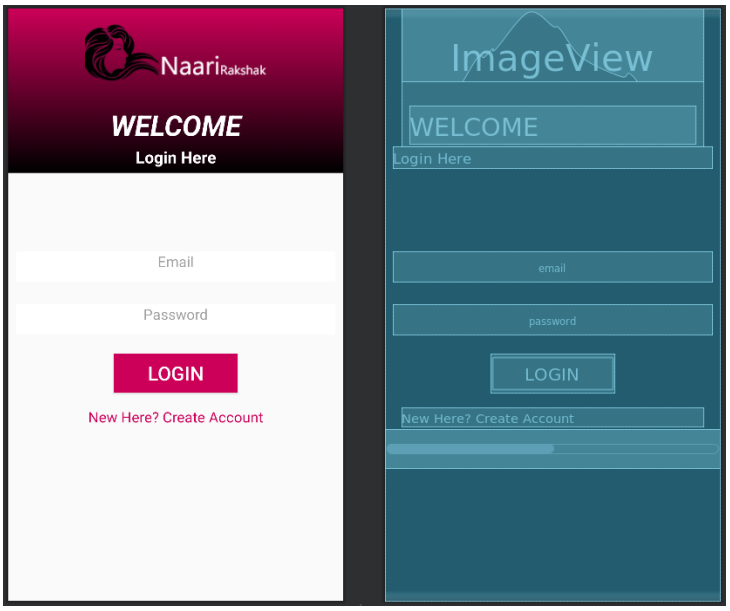

Fig 3.1.2 : Login Page XML Layout

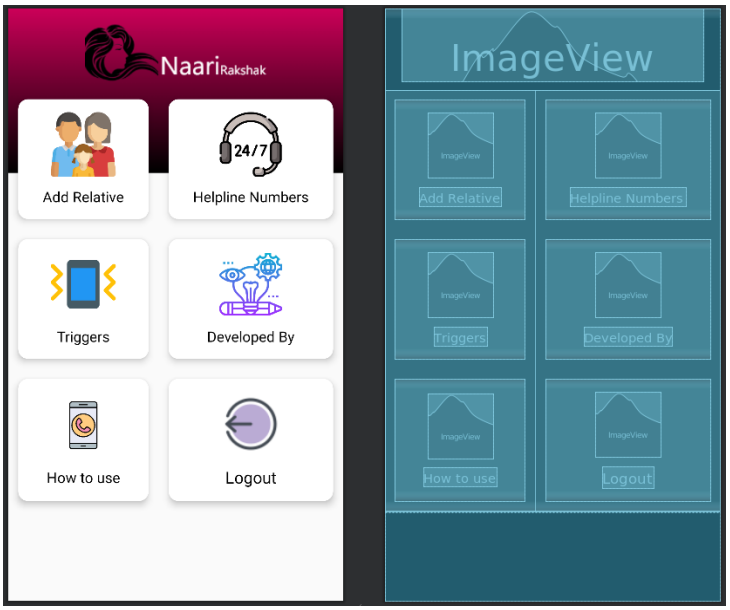

Fig 3.1.3 : Home Page XML Layout

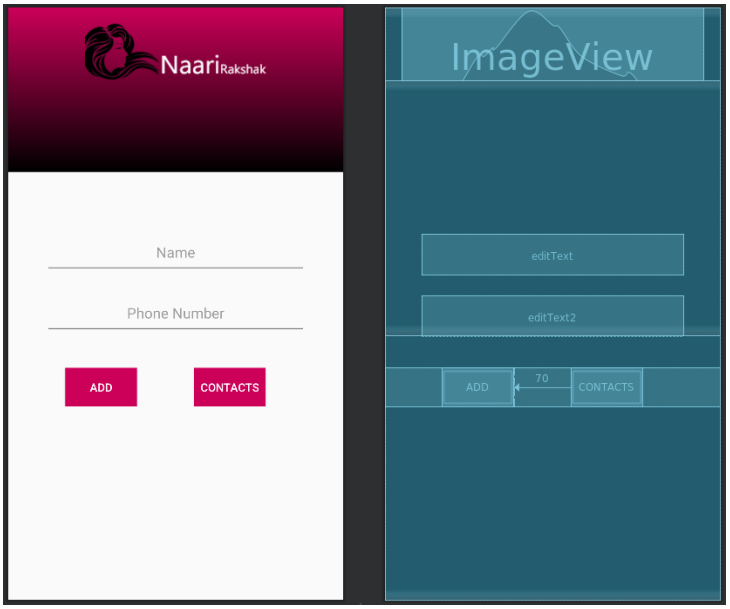

Fig 3.1.4 : Add Relative Page XML Layout

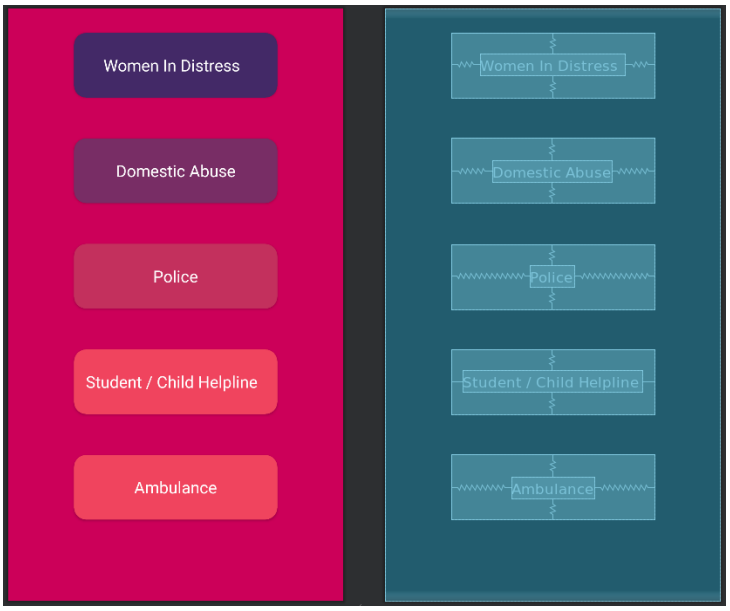

Fig 3.1.5 : Helpline Page XML Layout

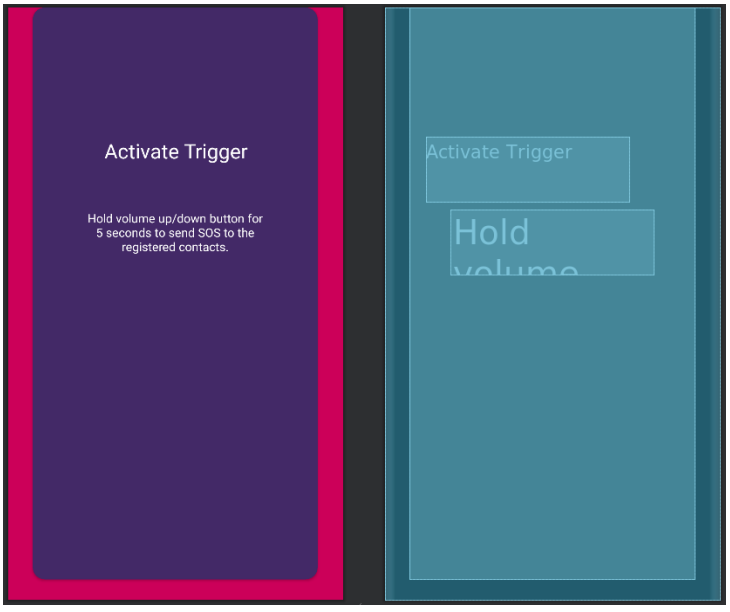

Fig 3.1.6 : Trigger Page XML Layout

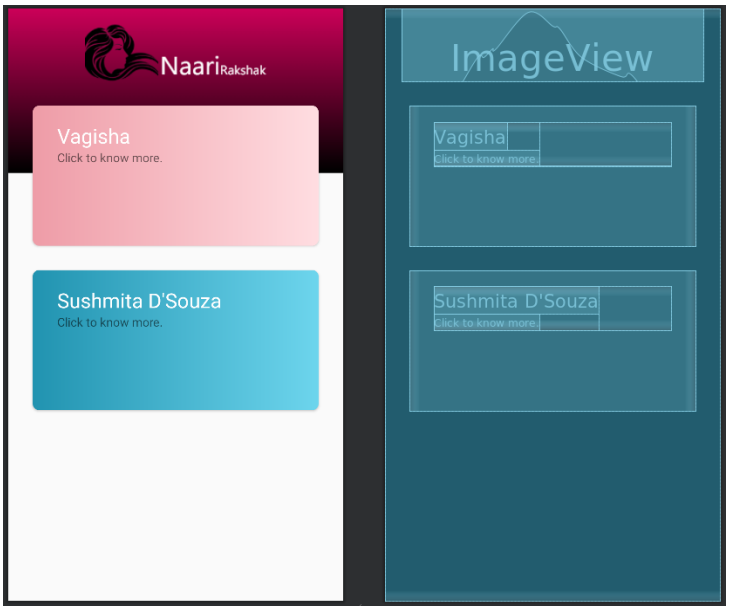

Fig 3.1.7 : About Page XML Layout

3.2 Palette & Attribute

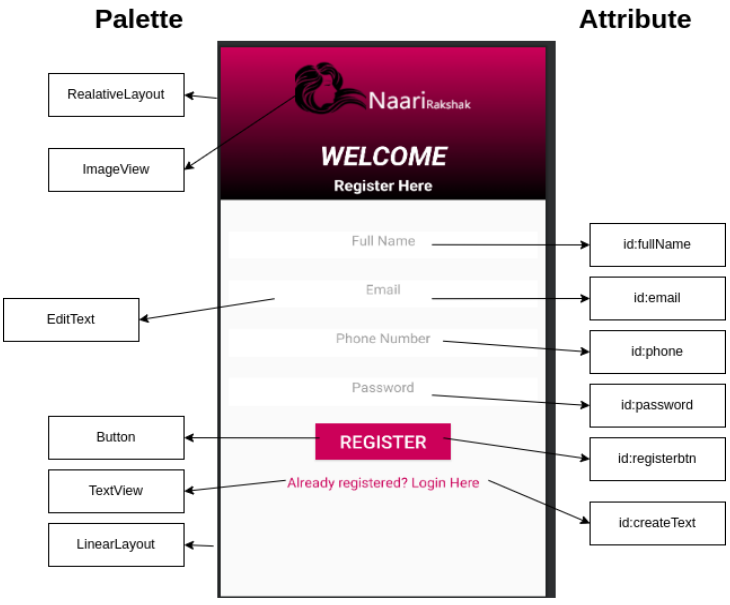

Fig 3.2.1 : Register Page Palette with Attributes

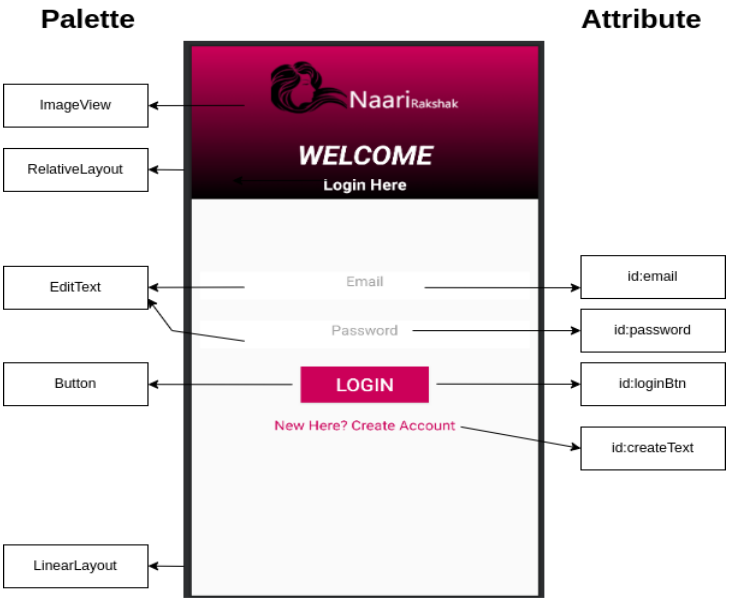

Fig 3.2.2 : Login Page Palette with Attributes

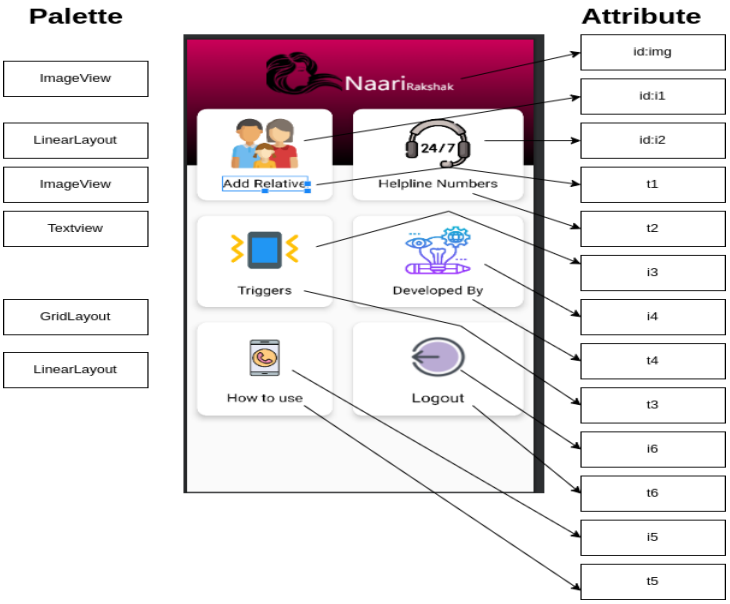

Fig 3.2.3 : Home Page Palette with Attributes

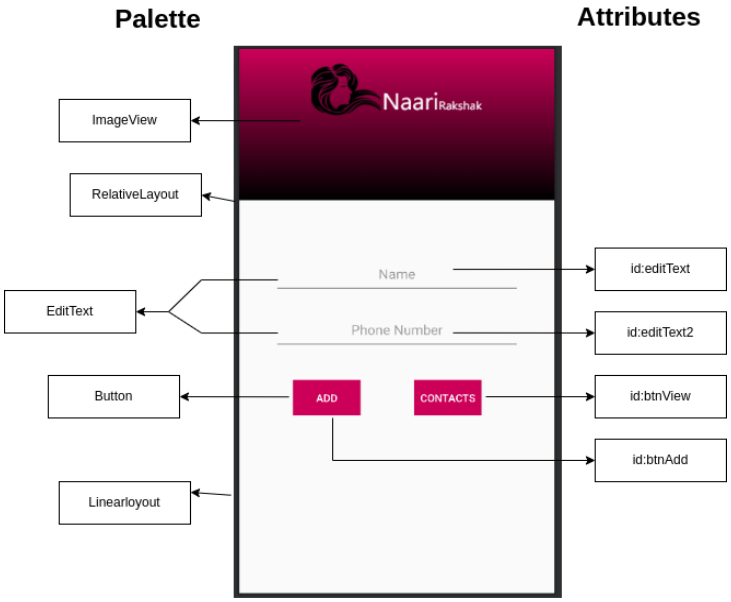

Fig 3.2.4 : Add Relative Page Palette with Attributes

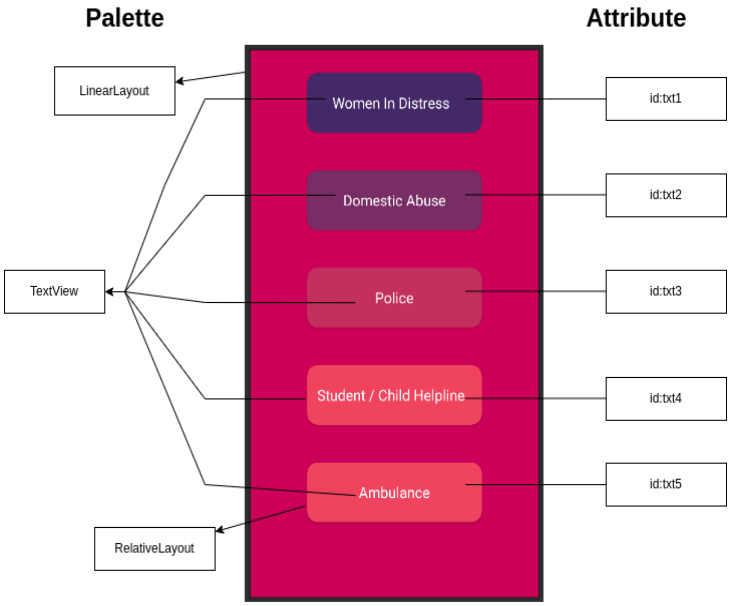

Fig 3.2.5 : Call Page Palette with Attributes

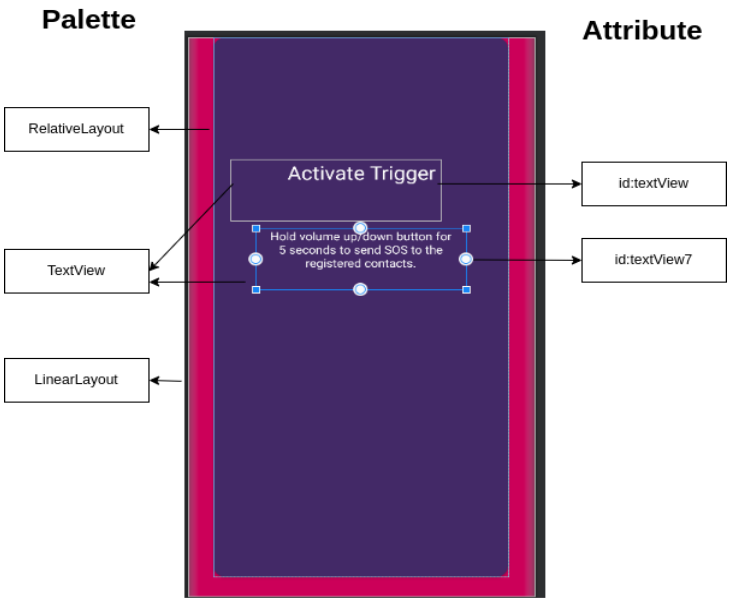

Fig 3.2.6 : Trigger Page Palette with Attributes

3.3 Description about Implementation

Function to make call for helpline numbers:

```
package com.dan.naari;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;

public class helplineCall extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_helpline_call);
    }

    public void callDistress(View v){
        Intent intent = new Intent(Intent.ACTION_DIAL);
        intent.setData(Uri.parse("tel:1091"));
        startActivity(intent);
    }

    public void callAbuse(View v){
        Intent intent = new Intent(Intent.ACTION_DIAL);
```

```
        intent.setData(Uri.parse("tel:181"));
        startActivity(intent);
    }

    public void callPolice(View v){
        Intent intent = new Intent(Intent.ACTION_DIAL);
        intent.setData(Uri.parse("tel:100"));
        startActivity(intent);
    }

    public void callHelpline(View v){
        Intent intent = new Intent(Intent.ACTION_DIAL);
        intent.setData(Uri.parse("tel:1098"));
        startActivity(intent);
    }

    public void callAmbulance(View v){
        Intent intent = new Intent(Intent.ACTION_DIAL);
        intent.setData(Uri.parse("tel:102"));
        startActivity(intent);
    }
}
```

This Function will allow the users to call the helpline numbers. When the desired number button is pressed an immediate call will be gone, which will help the women in need.

Function for the user to login in:

```
public class Login extends AppCompatActivity {

    EditText mEmail,mPassword;

    Button mLoginBtn;

    TextView mCreateBtn;

//    FirebaseAuth fAuth;

    ProgressBar progressBar;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_login);

        mEmail = findViewById(R.id.email);
```

```
        mPassword = findViewById(R.id.password);

        mLoginBtn =  findViewById(R.id.loginBtn);

        mCreateBtn = findViewById(R.id.createText);

        //fAuth = FirebaseAuth.getInstance();

        progressBar = findViewById(R.id.progressBar);

        mLoginBtn.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View v) {

                  startActivity(new  Intent(getApplicationContext(),
MainActivity.class));

                String email = mEmail.getText().toString().trim();

           String password = mPassword.getText().toString().trim();

                if (TextUtils.isEmpty(email)) {

                    mEmail.setError("Email is Required.");

                    return;

                }

                if (TextUtils.isEmpty(password)) {

                    mPassword.setError("Password is Required");

                    return;

                }

                if(password.length() < 6) {

            mPassword.setError("Password Must be >= 6 Characters");

                    return;

                }

                progressBar.setVisibility(View.VISIBLE);
```

This function is used to make the user login .The user can type his username and correct password to log in. The password will have more than 6 more characters.

Function to add relative:

```
public class AddRelative extends AppCompatActivity {

    private static final int REQUEST_CALL = 1;

    DatabaseHelper myDB;

    Button btnAdd,btnView;

    EditText editText, editText2;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_add_relative);

        editText = (EditText) findViewById(R.id.editText);

        editText2 = (EditText) findViewById(R.id.editText2);

        btnAdd = (Button) findViewById(R.id.btnAdd);

        btnView = (Button) findViewById(R.id.btnView);

        myDB = new DatabaseHelper(this);

        btnAdd.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View v) {

                String newEntry = editText.getText().toString();

                String newEntry1 = editText2.getText().toString();

                if(editText.length()!= 0){

                    AddData(newEntry);

                    AddData(newEntry1);

                    editText.setText("");

                }else{

Toast.makeText(AddRelative.this, "You must put something in the text
field!", Toast.LENGTH_LONG).show();

                }

 }
```

```
        });
        btnView.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                        Intent intent = new Intent(AddRelative.this,
ViewListContents.class);
                startActivity(intent);
            }
        });
    }
    public void AddData(String newEntry) {
        boolean insertData = myDB.addData(newEntry);
if(insertData==true){
                Toast.makeText(this, "Data Successfully Inserted!",
Toast.LENGTH_LONG).show();
        }else{
                  Toast.makeText(this, "Something went wrong :(.",
Toast.LENGTH_LONG).show();
        }
    }
    @Override
    public boolean dispatchKeyEvent(KeyEvent event) {
        int action, keycode;
        action = event.getAction();
        keycode = event.getKeyCode();
        switch (keycode)
        {
            case KeyEvent.KEYCODE_VOLUME_UP:
                {
```

```
                if(KeyEvent.ACTION_UP == action){

                     // count++;

                    //String S1 = String.valueOf(count);

                    //Log.d("upButton", S1);

                Intent callIntent = new Intent(Intent.ACTION_CALL);

                    callIntent.setData(Uri.parse("tel:"));

            if (ActivityCompat.checkSelfPermission(AddRelative.this,
Manifest.permission.CALL_PHONE)!= PackageManager.PERMISSION_GRANTED)
{

ActivityCompat.requestPermissions(AddRelative.this,new
String[]{Manifest.permission.CALL_PHONE}, REQUEST_CALL);

                    } else {

                        callIntent.setData(Uri.parse("tel:"));

                        startActivity(callIntent);

                    }

                    startActivity(callIntent);

                }

            }

            case KeyEvent.KEYCODE_VOLUME_DOWN:

                if(KeyEvent.ACTION_DOWN == action){

                    //count = 0;

                    //String S2 = String.valueOf(count);

                    //Log.d("downButton", S2);

               Intent callIntent = new Intent(Intent.ACTION_CALL);

                    callIntent.setData(Uri.parse("tel:"));

            if (ActivityCompat.checkSelfPermission(AddRelative.this,
Manifest.permission.CALL_PHONE)!= PackageManager.PERMISSION_GRANTED)
{

ActivityCompat.requestPermissions(AddRelative.this,new
String[]{Manifest.permission.CALL_PHONE}, REQUEST_CALL);

                    } else {
```

```
                    callIntent.setData(Uri.parse("tel:"));
                    startActivity(callIntent);
                }
                startActivity(callIntent);
            }
        }
        return super.dispatchKeyEvent(event);
    }
}
```

This function is used to add relatives. By using this app, users can add relatives or friends to make a phone call during an emergency.

Function of main activity:

```
public class MainActivity extends AppCompatActivity {
    int count = 0;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    @Override
    protected void onNewIntent(Intent intent) {
        super.onNewIntent(intent);
        Bundle extras = getIntent().getExtras();
        String V1 = extras.getString(Intent.EXTRA_TEXT);
        Log.d("NumberMainActivity", V1);
    }
```

```
    public void addRelative(View v){
 Intent i = new Intent(getApplicationContext(), AddRelative.class);
        startActivity(i);
    }
    public void helplineNumbers(View v){
 Intent i = new Intent(getApplicationContext(), helplineCall.class);
        startActivity(i);
    }
    public void triggers(View v){
 Intent i = new Intent(getApplicationContext(), TrigActivity.class);
        startActivity(i);
    }
    public void developedBy(View v){
              Intent   i   =   new   Intent(getApplicationContext(),
DeveloperByActivity.class);
        startActivity(i);
    }
    public void HowTo(View v){
  Intent i = new Intent(getApplicationContext(), HowToSwipe.class);
        startActivity(i);
    }
    public void LogOut(View v){
        Intent i = new Intent(getApplicationContext(), Login.class);
        startActivity(i);
    }
```

This function is used to show the home page.

Function for user to sign up:

```
public class Registration extends AppCompatActivity {

    EditText mFullName,mEmail,mPassword,mPhone;

    Button mRegisterbtn;

    TextView mCreateText;

    FirebaseAuth fAuth;

    ProgressBar progressBar;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_registration);

        mFullName = findViewById(R.id.fullName);

        mEmail = findViewById(R.id.email);

        mPassword = findViewById(R.id.password);

        mPhone = findViewById(R.id.phone);

        mRegisterbtn = findViewById(R.id.registerbtn);

        mCreateText = findViewById(R.id.createText);

        fAuth = FirebaseAuth.getInstance();

        progressBar = findViewById(R.id.progressBar);

        if (fAuth.getCurrentUser() != null) {

                startActivity(new   Intent(getApplicationContext(),
MainActivity.class));

            finish();

        }

        mRegisterbtn.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View v) {

                String email = mEmail.getText().toString().trim();

           String password = mPassword.getText().toString().trim();
```

```
                if (TextUtils.isEmpty(email)) {
                    mEmail.setError("Email is Required.");
                    return;
                }
                if (TextUtils.isEmpty(password)) {
                    mPassword.setError("Password is Required");
                    return;
                }
                if(password.length() < 6) {
            mPassword.setError("Password Must be >= 6 Characters");
                    return;
                }
                progressBar.setVisibility(View.VISIBLE);

fAuth.createUserWithEmailAndPassword(email,password).addOnCompleteLi
stener(new OnCompleteListener<AuthResult>() {
                    @Override
            public void onComplete(@NonNull Task<AuthResult> task) {
                        if (task.isSuccessful()) {
          Toast.makeText(Registration.this,     "User     Created.",
Toast.LENGTH_SHORT).show();
                  startActivity(new  Intent(getApplicationContext(),
MainActivity.class));
                        } else {
                     Toast.makeText(Registration.this,   "Error"   +
task.getException().getMessage(), Toast.LENGTH_SHORT).show();
                       progressBar.setVisibility(View.GONE);
                        }
                    }
                });
            }
```

```
        });
        mCreateText.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
  startActivity(new Intent(getApplicationContext(), Login.class));
            }
        });
    }
}
```

This function is used by the user to register herself. The user has to fill the necessary details and sign up with an email id and password. This email id and password will be used during login. The password should contain more than 6 characters.

Function to view contents:

```
public class ViewListContents extends AppCompatActivity {
    DatabaseHelper myDB;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.viewlistcontents_layout);
        ListView listView = (ListView) findViewById(R.id.listView);
        myDB = new DatabaseHelper(this);
  //populate an ArrayList<String> from the database and then view it
        ArrayList<String> theList = new ArrayList<>();
        Cursor data = myDB.getListContents();
        if(data.getCount() == 0){
   Toast.makeText(this, "There are no contents in this
list!",Toast.LENGTH_LONG).show();
        }else{
```

```
            while(data.moveToNext()){

                theList.add(data.getString(1));

                                ListAdapter    listAdapter    =    new
ArrayAdapter<>(this,android.R.layout.simple_list_item_1,theList);

                listView.setAdapter(listAdapter);

            }

        }

    }

}
```

This function is used to view the contents which are stored in the database.

CHAPTER 4 - SNAPSHOTS

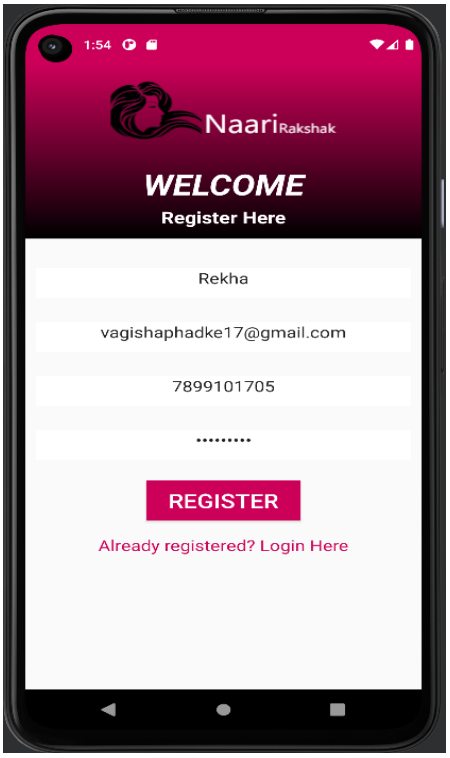

Fig 4.1 : Registration Page

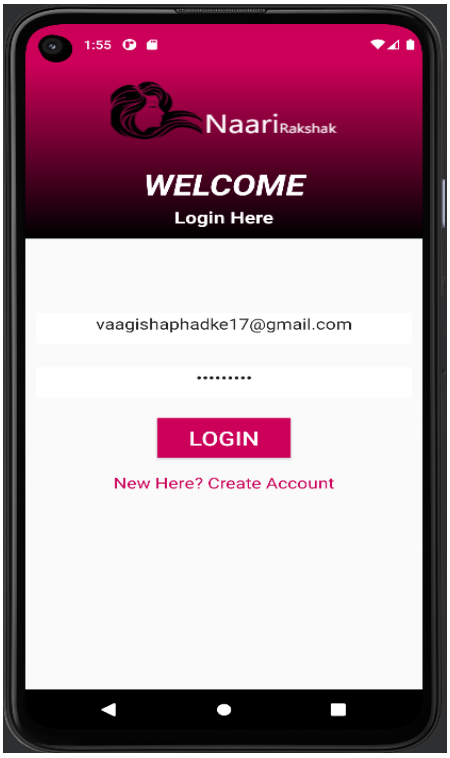

Fig 4.2 : Login Page

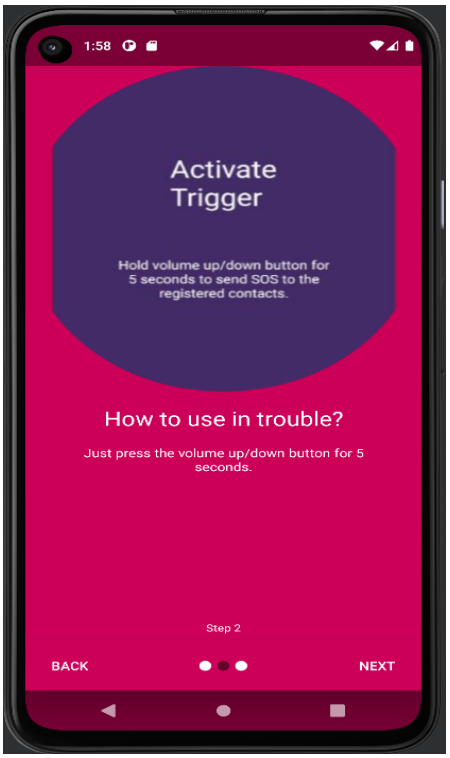

Fig 4.3 : How To Use Step1

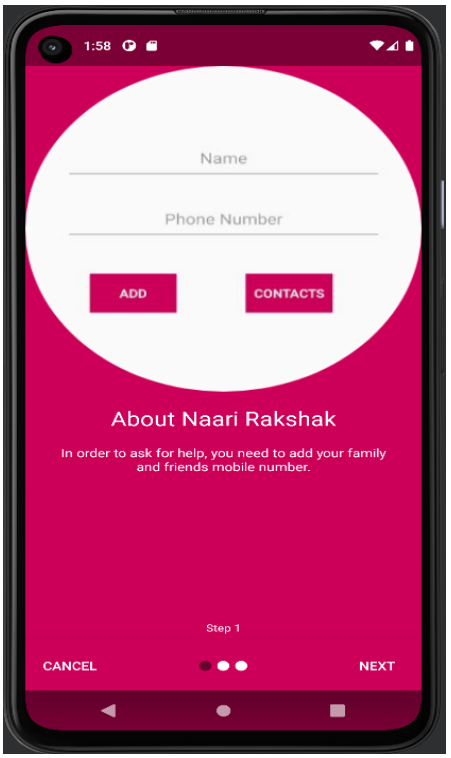

Fig 4.4 : How To Use Step2

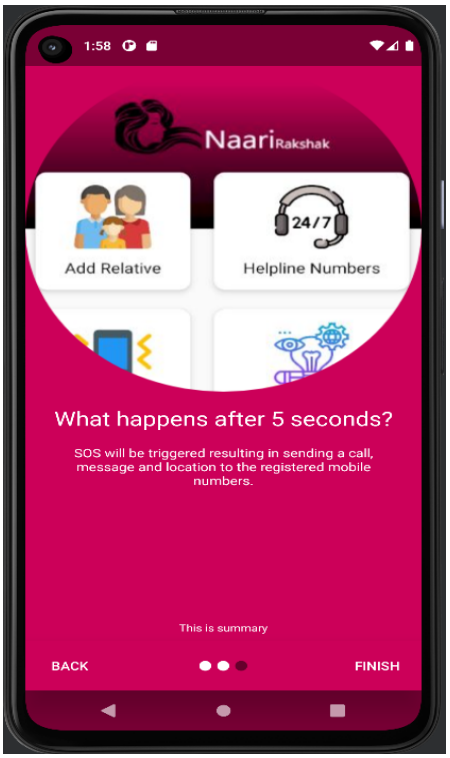

Fig 4.5 : How To Use Step3

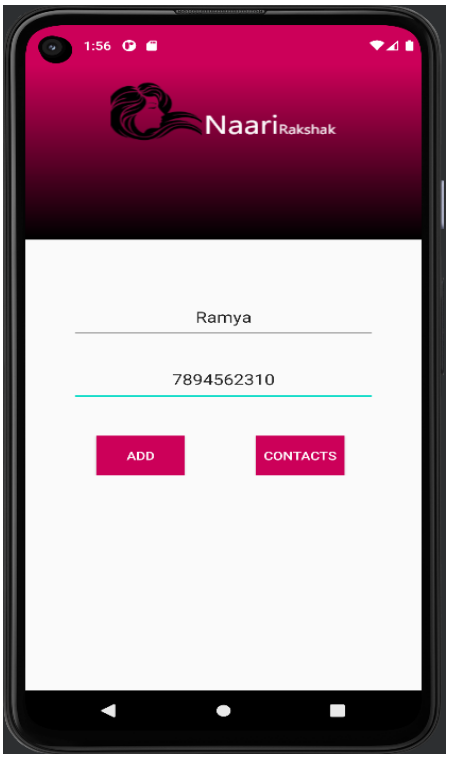

Fig 4.6 : Add Detail

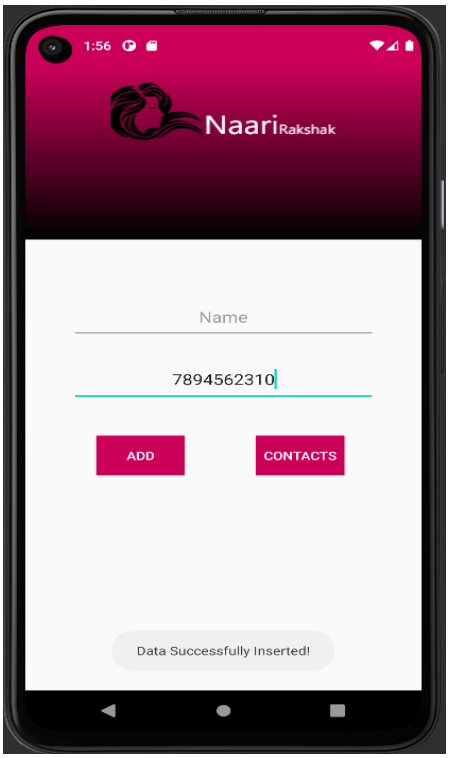

Fig 4.7 : Details gets inserted

Fig 4.8 :Viewing details

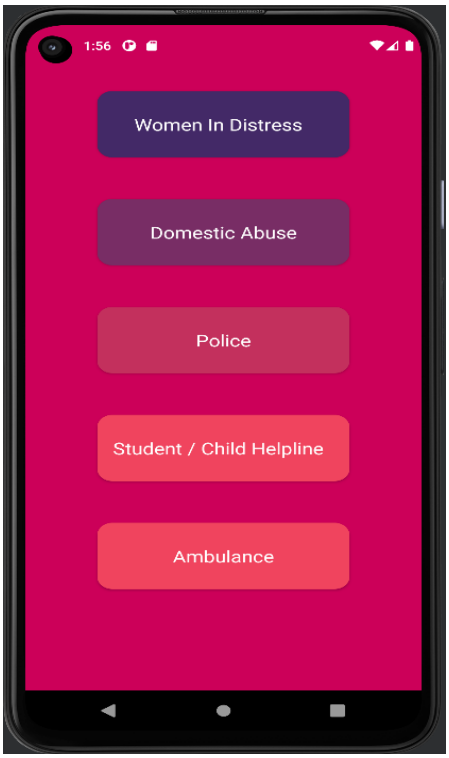

Fig 4.9 : Helpline numbers

Fig 4.10 : Calling Women Helpline

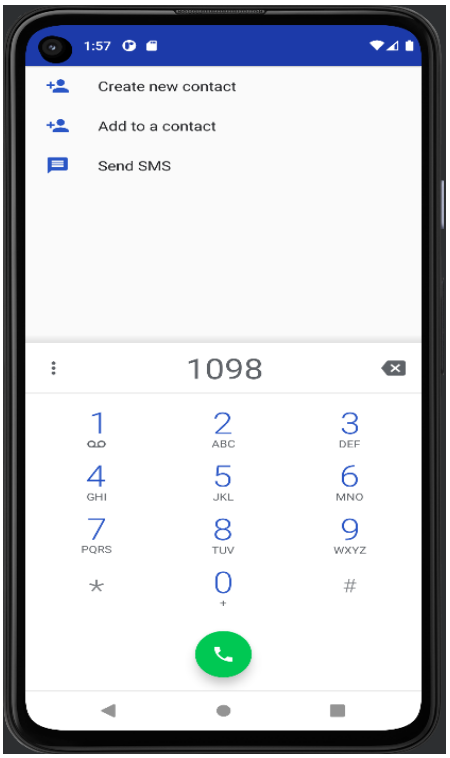

Fig 4.11 : Childline Number

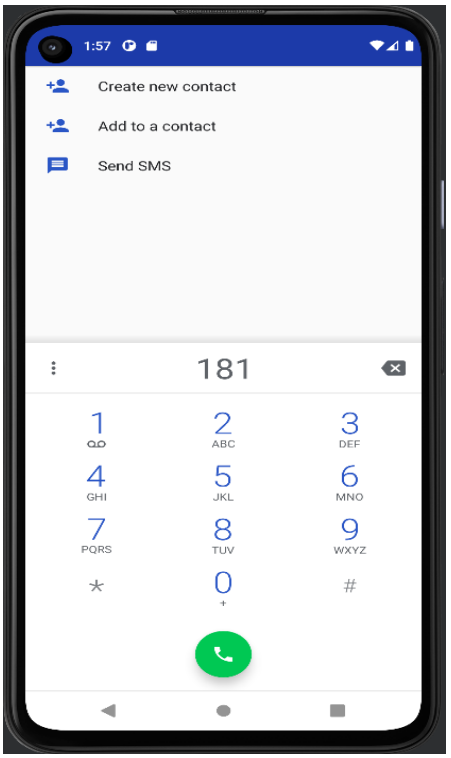

Fig 4.12 : Women Helpline Domestic Abuse

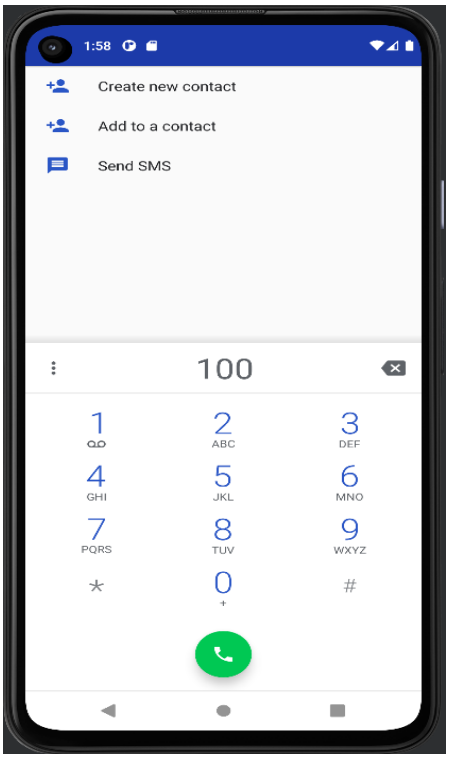

Fig 4.13 : Police

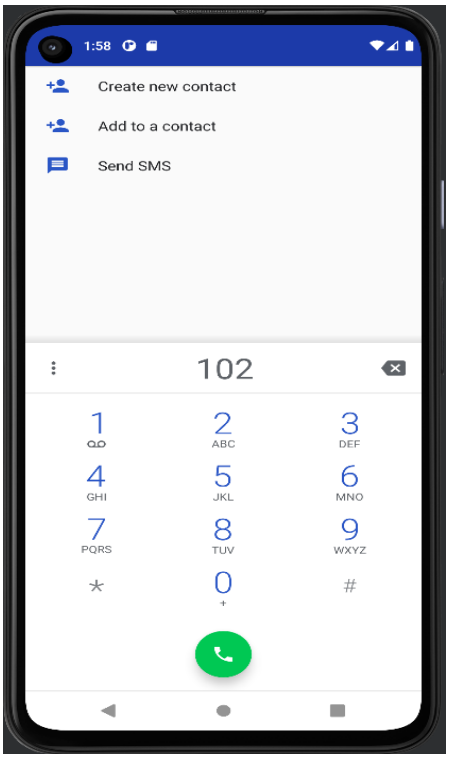

Fig 4.14 Ambulance Service

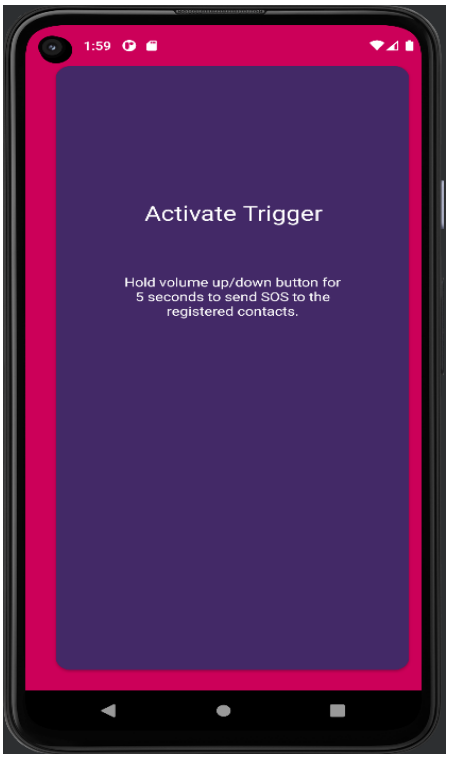

Fig 4.15 : Trigger message

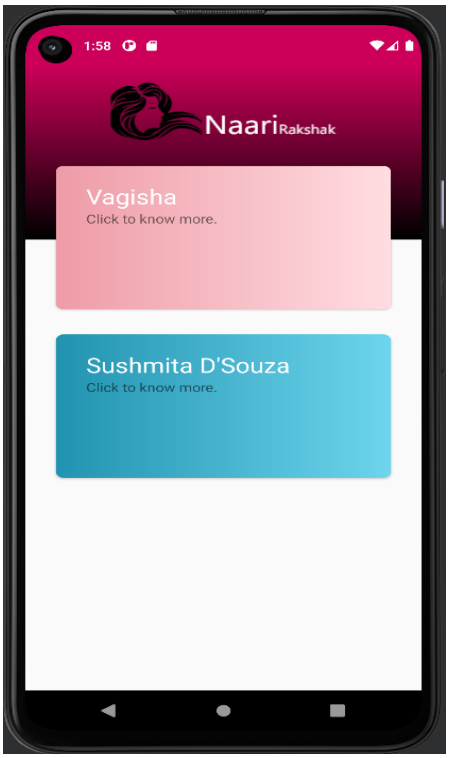

Fig 4.16 : About developers

CHAPTER 5 - CONCLUSION AND FUTURE WORK

Unfortunately, the safety of women is in doubt and security is not concerned. Many headlines still coming across against women indicates that increasing trends of such sexual assault rapes still happening in today's generation. Around 80 percent of women are losing confidence and have fear of the realization of freedom. So we are trying to contribute little effort towards women which will ensure the safety and respect for women so that she can have the right to grow equally like men. This mobile application is very much helpful for anyone. This application will help the user to send emergency messages and alert her family or friends about her emergency.

It is to let every woman travel safely. For the future, we have in mind to extend this app where she can also send her live location to her near ones . This project that we have made is small scale but has a large development scope and we look further to the day it can be extended and used by all common people so in totality this project is an initiative taken by us to contribute to the betterment of the society in whatever way we can.

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