MINI PROJECT

(2020-2021)

ANDROID APPLICATION BASED ON WOMEN SECURITY.

MID-TERM REPORT

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ABSTRACT

In our Country, even though it has super power and an economic development, but still there are many crimes against women. Security for women has become a major issue as the number of crimes over women and girls increasing day-by-day. This paper describes about women safety and their security by using electronic device to both detect the problem & alert Authorities.This paper suggests a new perspective to use technology to protect women.We use an android based smart phone with an integrated feature that alert and provide location based Information. This Document describe GPS and GSM based **"Women Security System "**that provides the combination of GPS devices as- well-as provide alerts and message with an emergency button Trigger. Whenever somebody is in Trouble They Only have to press Volume Key Button After that a message alert is sent to Register Contact list and a Voice Call to the Number registered first and give a message **"I AM In TROUBLE PLEASE HELP ME"** Now a day safety of women is becoming very poor with the help of this Application The project was development in Android Which Graphical User Interface it provide the level of reliability, availability and compatibility .All these make Android an appropriate language for this project because Android language is based on JAVA language.

Keywords: Women security, Smartphone, Registered contacts, Database, GPS (Global Positioning System), GSM (Global System For Mobile).

INTRODUCTION

This application designed to provide security to women main purpose of this application to provide the awareness on the time of critical situation for women. Generally you can active this service by clicking on ACTIVE SERVICE button. When you clicking on this button service get activate and know whenever you click on VOLUME key it open a new window and send SMS to those contact which you saved at the time of registration the SMS contain your message and your current location. This application is provide deactivate service also when we fill secure this application is mainly required correct information to fill otherwise this app

PURPOSE:-

The main purpose the project is to provide highly reliable security system for the safety of women. The proposed system is based advanced sensors, Microcontroller and GSM. The basic aim of the system is to develop a low cost solution for GPS based women tracking system (women safety system). The main objective of the system is to track the current location of the person which has an android enabled mobile by extracting the longitude and latitude of that target person.

PAPER ORGANISATION:-

Organization of paper is as follows: SECTION II covers the design of the system which includes explanation about existing systems and proposed system, it also contains details about different modules implemented in the system, and DFD's, activity diagram. SECTION III explains about technologies implemented in the system. SECTION IV covers the view on working of an application and results of the application. Finally SECTION V takes the conclusion and feature scope for the system development.

II. System Design

Proposed System:-

The proposed system is especially for the women safety and overcomes the disadvantages of existing system:-

This proposed system is 'GSM & GPS Based women Security System'. It consists of GPS device ie. any Android Phone and an emergency button. GPS device must to be placed inside the device (Android Phone). The device will provide the position information such as latitude, longitude of women. An emergency button is fixed on the device at a particular position. Whenever women in any kind of trouble she will press the emergency button and an alert will be immediately sent to the nearest police station. Then it is the responsibility of police squad to handle the situation.

Features:-

1) This project presents an alert system for Women safety detection.
2) The system provides a realizable and efficient.
3) The application is easier to use all the woman.
4) The application is normal budget.
5) For user there is no need of external hardware or software to use this application
6) This application is free for user, which does not affect user's cost
7) User only need a Smartphone or tablet which has Android OS to the work.

System Modules:-

This project contains the following four modules:

***Profile Module**

Profile is an important component to users, which helps the users to add his/her personal details: Name, Address, Email Id, Mobile Number.

***Police Station**

The user will get information about the nearer police station.

***Emergency Contacts**

Required details of one who is in danger will be contacted to the right persons or family members or friends or help lines

***Emergency Button**

When we sense any danger, we can escape by using emergency button.

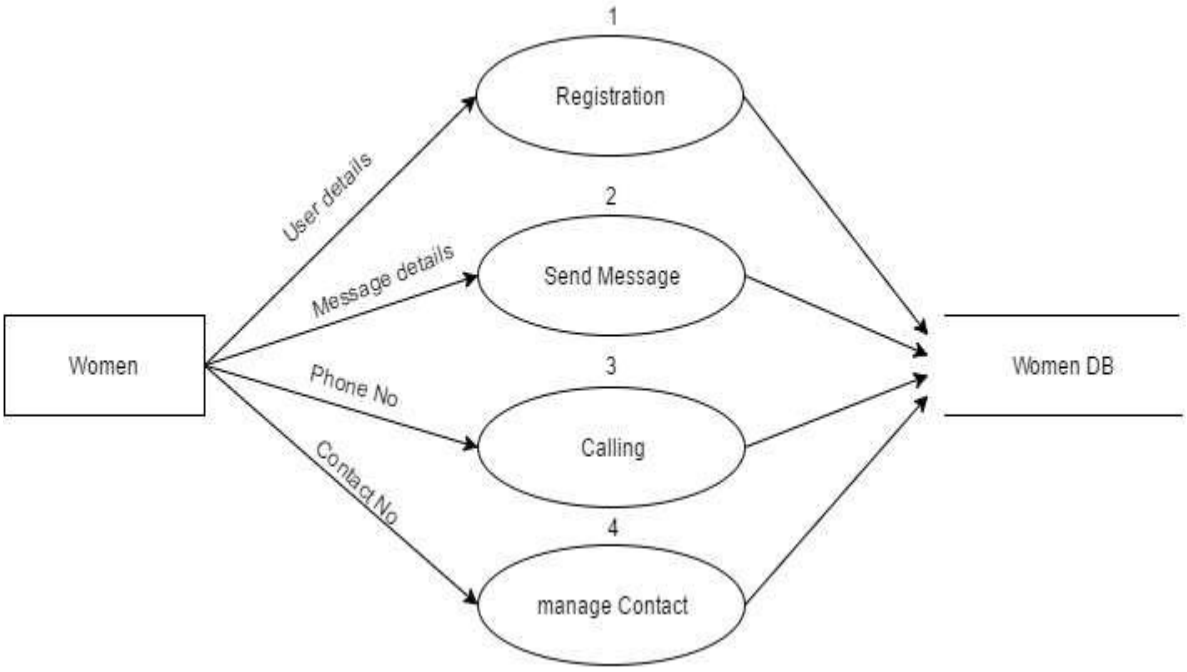
Data Flow Diagram (DFD):-

Data Flow Diagrams are a graphical tool used to describe and analyze the movement of data through a system. DFD's are used to capture the essential feature of both existing real system and future physical implementation of the system. The DFD is a graphical technique that depicts the information flow and the transforms that are applies as data move from input to the output

Level-0 DFD Shows outline of the System Models:-

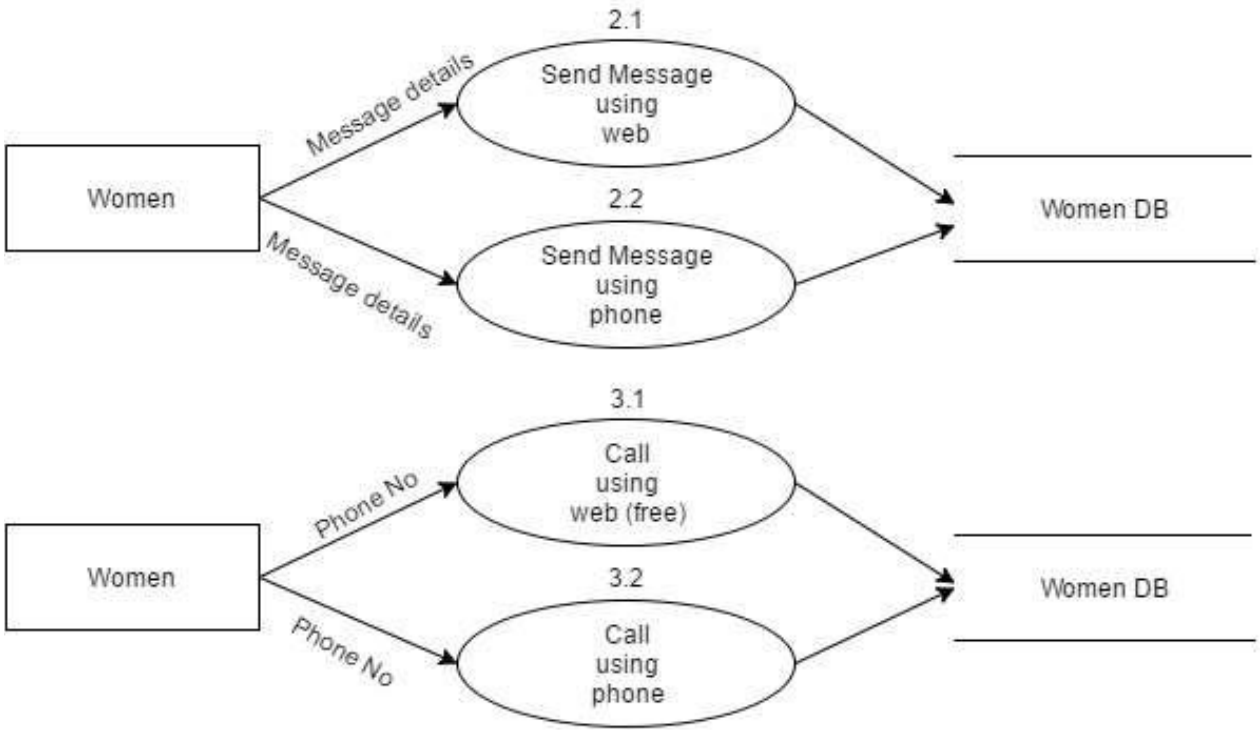
Level-1 DFD:-

This shows the separation of all external modules, relationship between those modules and the application



Level-2 DFD

This differentiates the modules frontend and backend



Performance Requirement:-

This document will provide general description of the project product perspective, and overview of requirement, general constraint and user view of the product while using. In additional will also provide the specific requirement and functional needs for this project such as interface, functional and performance requirements. The purpose of this software requirement specification is to properly document the requirement of the user necessary in order to build this application.

Software Requirement:-

This system compromises an Android Operating System, using Java has a core language, with Android SDK 2.3 has its version, Implementation of Front end is done by XML and we have used SQLite has back end, the documentation of this system is done using MS-OFFICE.

Application Framework:-

On the top of Native libraries and android runtime, there is android framework. Android framework includes **Android API's** such as UI (User Interface), telephony, resources, locations, Content Providers (data) and package managers. It provides a lot of classes and interfaces for android application development.

Applications:-

On the top of android framework, there are applications. All applications such as home, contact, settings, games, browsers are using android framework that uses android runtime and libraries. Android runtime and native libraries are using linux kernel.

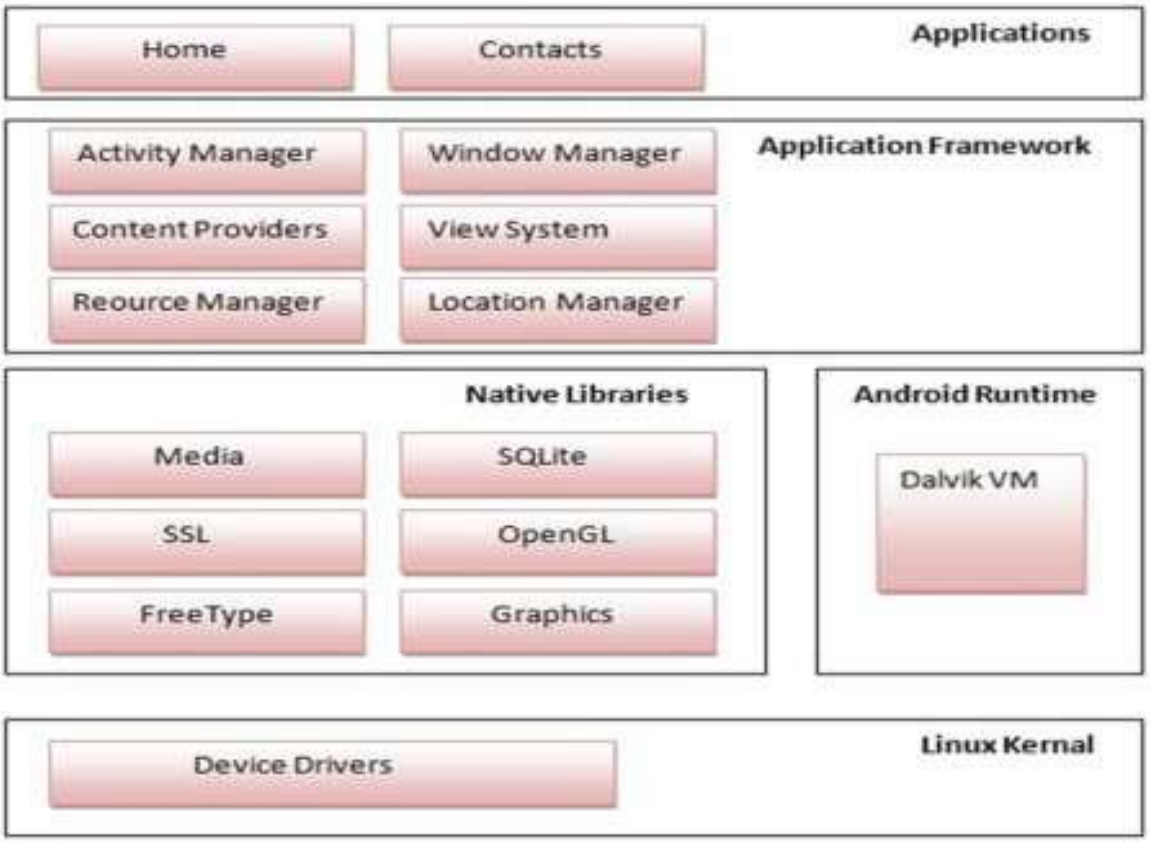
Hardware Requirements:-

This System is built on Intel Pentium 4 CPU, having clock speed of 3.0GHz, with RAM size 512MB, 40Ghz of hard disk capacity, display is of 15-inch color monitor, and internet keyboard.

Andriod Studio 1,3.2

Android Studio is the official Integrated Development Environment (IDE) for Android app development, based on IntelliJ IDEA. On top of IntelliJ's powerful code editor and developer tools, Android Studio offers even more features that enhance your productivity when building Android apps, such as:

* A flexible Gradle-based build system
* A fast and feature-rich emulator
* A unified environment where you can develop for all Android devices
* Instant Run to push changes to your running app without building a new APK
* Code templates and GitHub integration to help you build common app features and import sample code
* Extensive testing tools and frameworks
* Lint tools to catch performance, usability, version compatibility, and other problems
* C++ and NDK support.



OBJECTIVES

Our objective is to create an app
1. which is user friendly.

2. Can help a user in multiple ways.

3. Have no adds.

4. No paid features everything is free.

5. Open source so no trouble for security.

Implementation Details

Part1: building the main page of the application
1. In the Project window, open app > res > layout > activity_main.xml.

2. To make room for the Layout Editor, hide the Project window. To do so, select View > Tool Windows > Project, or just click Project on the left side of the Android Studio screen.

3. If your editor shows the XML source, click the Design tab at the bottom of the window.

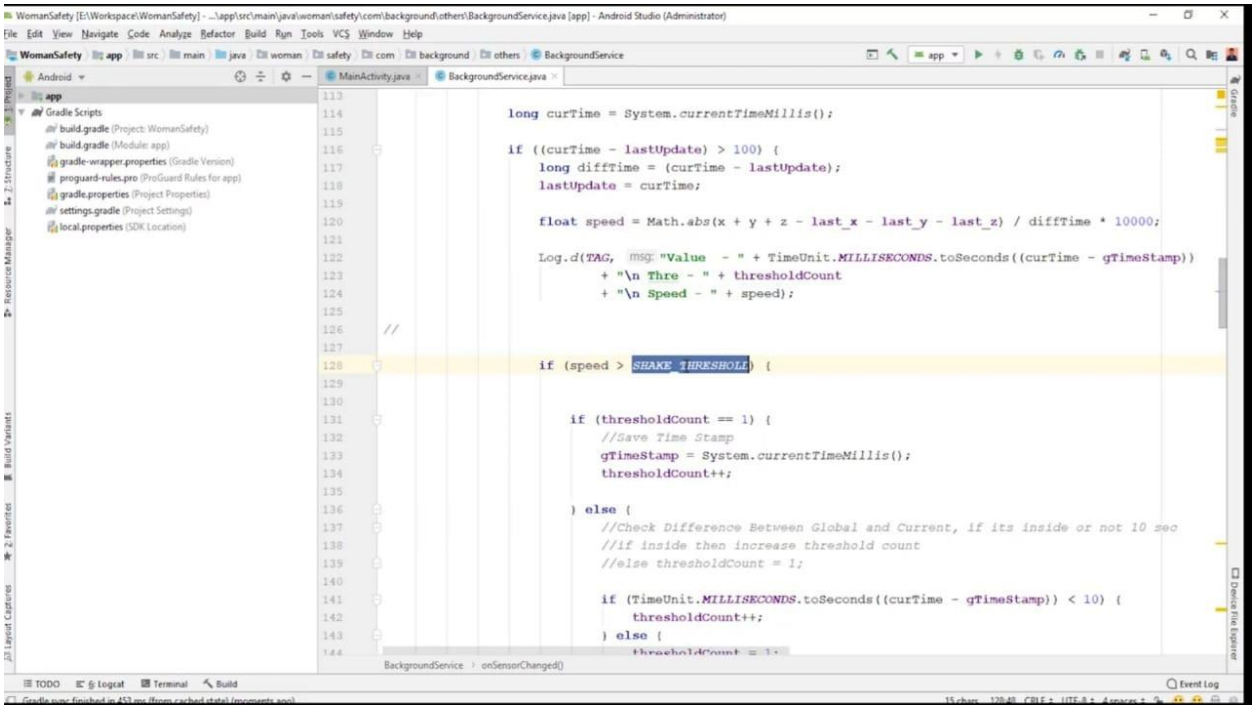
4. Click Select Design Surface and select Blueprint.

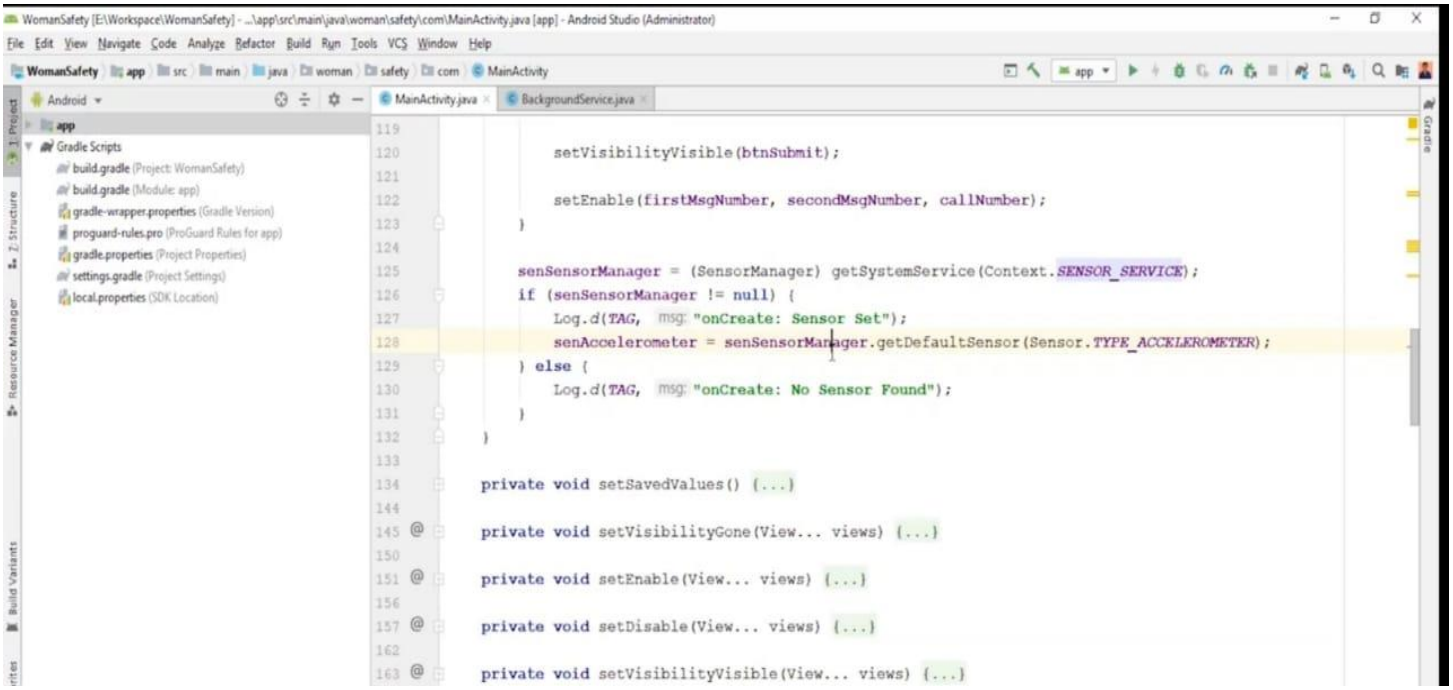
PROGRESS

Currently features are available:-

* Front end is developed.
*Application Interface Completed.
*Profile module completed.
*You can change registering details.
* Some more ideas adding soon.

Some Screenshots




WomanSafety [E:\Workspace\WomanSafety] - ...\app\src\main\java\woman\safety\com\MainActivity.java [app] - Android Studio (Administrator)
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
MainActivity.java
BackgroundService.java
Gradle Scripts
build.gradle (Project: WomanSafety)
build.gradle (Module: app)
gradle-wrapper.properties (Gradle Version)
proguard-rules.pro (ProGuard Rules for app)
gradle.properties (Project Properties)
settings.gradle (Project Settings)
local.properties (SDK Location)
setVisibilityVisible(btnSubmit);
setEnable(firstMsgNumber, secondMsgNumber, callNumber);
senSensorManager = (SensorManager) getSystemService(Context.SENSOR_SERVICE);
if (senSensorManager != null) {
Log.d(TAG, msg: "onCreate: Sensor Set");
senAccelerometer = senSensorManager.getDefaultSensor(Sensor.TYPE_ACCELEROMETER);
} else {
Log.d(TAG, msg: "onCreate: No Sensor Found");
private void setSavedValues() {...}
private void setVisibilityGone(View... views) {...}
private void setEnable(View... views) {...}
private void setDisable(View... views) {...}
private void setVisibilityVisible(View... views) {...}


@Override
public void onCreate(SQLiteDatabase db) {
String createTable = "CREATE TABLE " + TABLE_NAME + " (ID INTEGER PRIMARY KEY AUTOINCREMENT, " +
" ITEM1 TEXT)";
db.execSQL(createTable);
@Override
public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {
String a="DROP TABLE IF EXISTS " +TABLE_NAME;
db.execSQL(a);
onCreate(db);
public boolean addData (String item1){
SQLiteDatabase db = this.getWritableDatabase();
ContentValues contentValues = new ContentValues( );
contentValues.put(|);
}
DatabseHandler › addData()

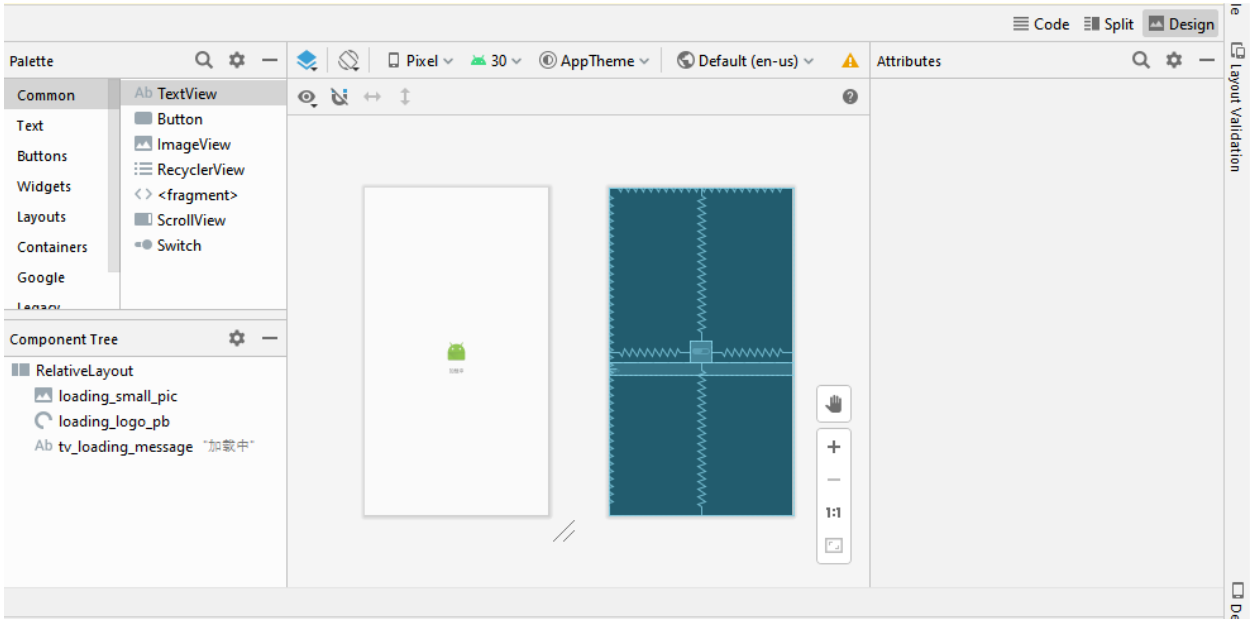
```
private void startTrack() {

    if (ActivityCompat.checkSelfPermission( context: MainActivity2.this, Manifest.permission.ACCESS_FINE_LOCATION )
            != PackageManager.PERMISSION_GRANTED && ActivityCompat.checkSelfPermission( context: MainActivity2.this,
            permission: Manifest.permission.ACCESS_COARSE_LOCATION != PackageManager.PERMISSION_GRANTED )){

    }

}

private void onGPS() {
    final AlertDialog.Builder builder = new AlertDialog.Builder( context: this );
    builder.setMessage( "Enable GPS" ).setCancelable( false ).setPositiveButton( text: "yes", new DialogInterface.OnClickListener() {
        @Override
        public void onClick(DialogInterface dialog, int which) {
           startActivity( new Intent( Settings.ACTION_LOCATION_SOURCE_SETTINGS ) );
        }
    } ).setNegativeButton( text: "NO", new DialogInterface.OnClickListener() {
        @Override
        public void onClick(DialogInterface dialog, int which) {
            dialog.cancel();
        }
    } );
```

MainActivity2 › startTrack()


b2.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View v) {
loadData();
}
});
}
private void loadData() {
ArrayList<String> thelist = new ArrayList<>( );
Cursor data = myDB.getListContents();
if (data.getCount()==0){
Toast.makeText(context: this, text: "no content to show",Toast.LENGTH_SHORT).show();
}
else {
String msg = "I NEED HELP LATITUDE:" +x+"LONGITUDE:"+y;
Sr
}
}
MainActivity2 › loadData()

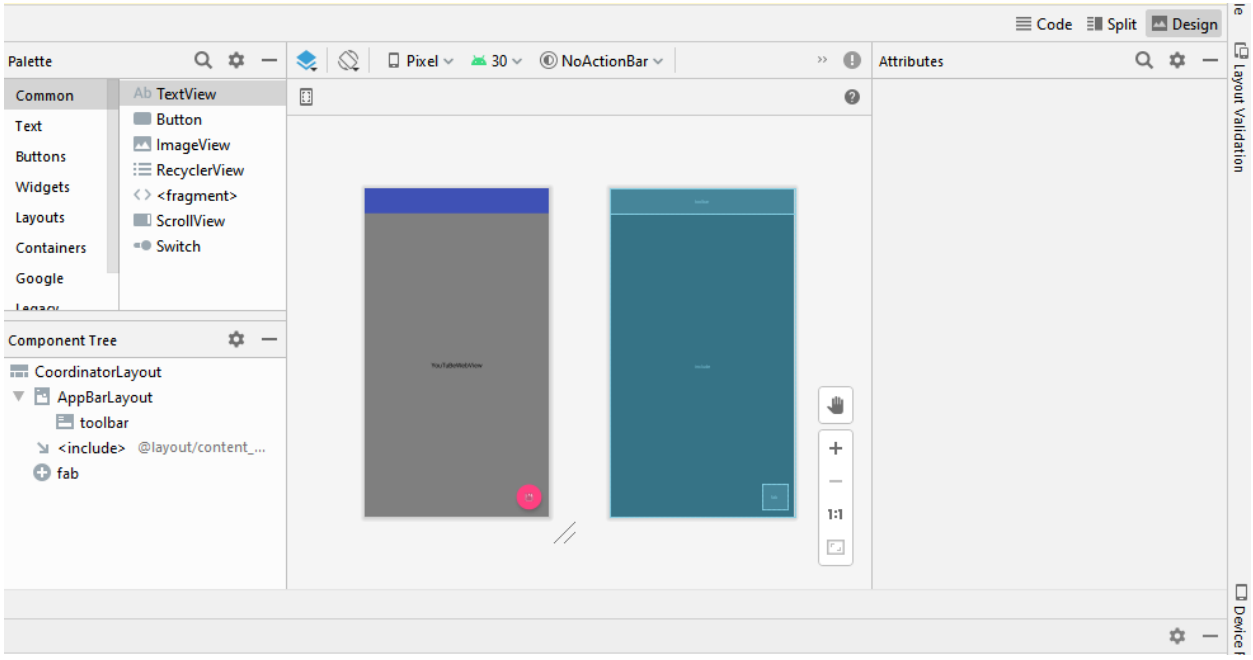
```
    DatabseHandler myDB;
    private final int REQUEST_CHECK_CODE =8989;
    private LocationSettingsRequest.Builder builder;
    String x="" , y="";
    private static final  int REQUEST_LOCATION = 1;

    LocationManager locationManager;
    Intent mIntent;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate( savedInstanceState );
        setContentView( R.layout.activity_main2 );
        b1 = findViewById( R.id.button );
        b2 = findViewById( R.id.button2 );
        myDB = new DatabseHandler( context: this );
        final MediaPlayer mp = MediaPlayer.create( getApplicationContext(),R.raw.emergency_alarm );

        locationManager =(LocationManager) getSystemService( LOCATION_SERVICE );
        if (!locationManager.isProviderEnabled( LocationManager.GPS_PROVIDER ))

    }
}
```

MainActivity2 › onCreate()



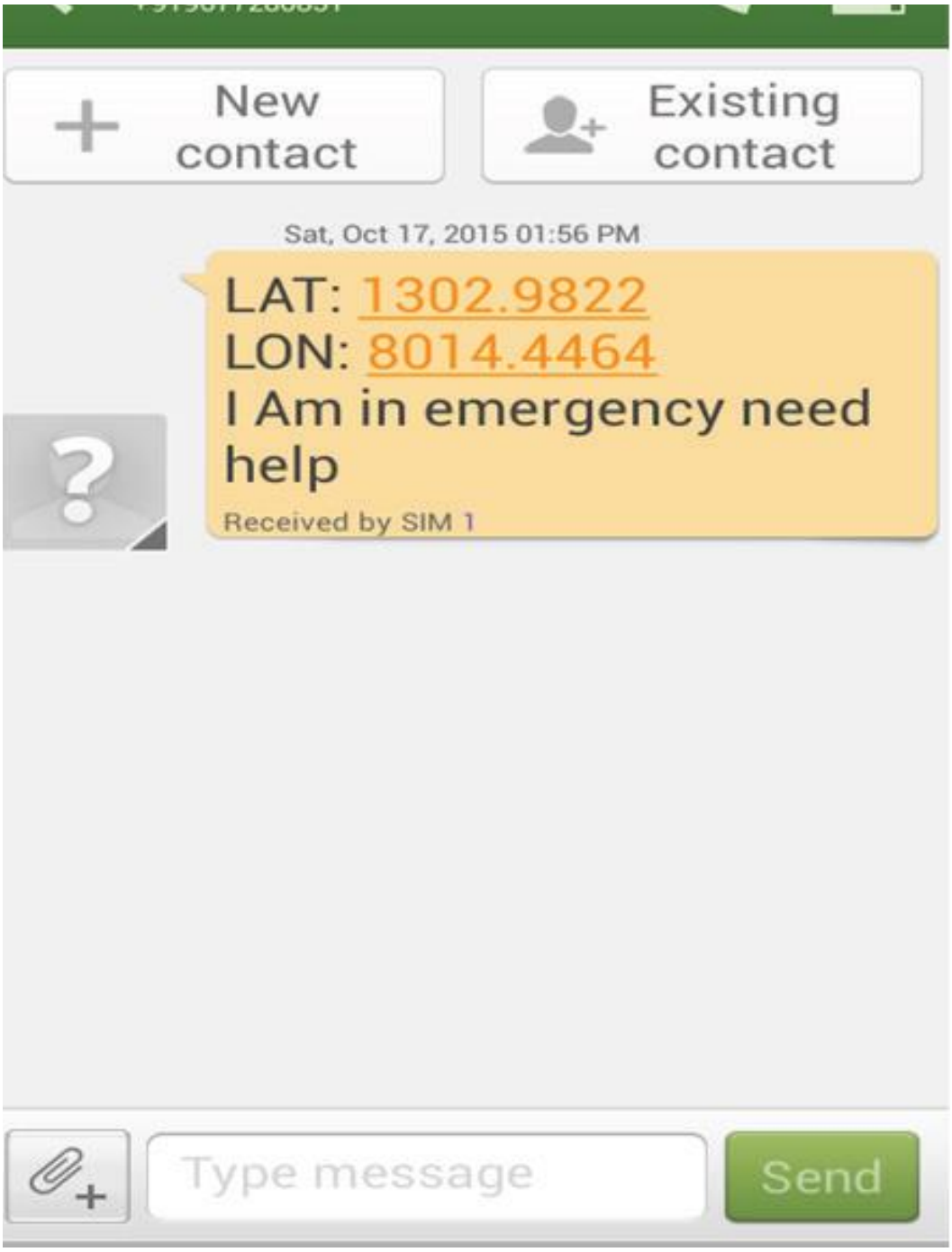
```
import android.content.Intent;
import android.location.LocationManager;
import android.os.Bundle;
import android.widget.Button;

import com.google.android.gms.location.FusedLocationProviderClient;
import com.google.android.gms.location.LocationSettingsRequest;

public class MainActivity2 extends AppCompatActivity {

    Button b1,b2;
    private FusedLocationProviderClient client;
    DatabseHandler myDB;
    private final int REQUEST_CHECK_CODE =8989;
    private LocationSettingsRequest.Builder bui
                                        builder
                                        Press Enter to insert, Tab to replace
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate( savedInstanceState );
        setContentView( R.layout.activity_main2 );
    }
}
```

MainActivity2 › b




9:39 PM
Women Security


4:48 PM
Women Security
Police station
7855663241
Ram
9389653348
Harish
9079448823
Sanki
9963453203
Please Help me, I am in Trouble.....!!!!
REGISTER


New contact
Existing contact
Sat, Oct 17, 2015 01:56 PM
LAT: 1302.9822
LON: 8014.4464
I Am in emergency need help
Received by SIM 1
Type message
Send

REFERENCES

• https://wwwyoutube.com/ code with harry - code with harry youtube page helped me alot in learning how to use android studio

*Android Programming Tutorials by Mark L. Murphy

*http://en.wikipedia.org/wiki/android

* https://play.google.com/store/apps/details?id=com

***Mentor Mr. Vinay Aggarwal Sir**