Project Report

On

Women safety application

Submitted for the requirement of

Project course

BACHELOR OF ENGINEERING

COMPUTER SCIENCE & ENGINEERING

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
College of Engineering(CGC) ,LANDRAN
August 2022

CERTIFICATE

This is to certify that the work embodied in this Project Report entitled **" "** being submitted by **,** 5th Semester for partial fulfillment of the requirement for the degree of **" Bachelor of Engineering in Computer Science & Engineering "** discipline in " **Chandigarh University** " during the academic session Jan-Jun 2021 is a record of bonafide piece of work, carried out by student under my supervision and guidance in the **" Department of Computer Science & Engineering ", Chandigarh University.**

APPROVED & GUIDED BY: Dishant Thakur

DECLARATION

I, student of **Bachelor of Technology** in **Computer Science & Engineering, 5th Semester** , **session: July – Aug 2022, College of Engineering ,** hereby declare that the work presented in this Project Report entitled **" Women Safety Application"** is the outcome of my own work, is bona fide and correct to the best of my knowledge and this work has been carried out taking care of Engineering Ethics. The work presented does not infringe any patented work and has not been submitted to any other university or anywhere else for the award of any degree or any professional diploma.

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ABSTRACT

The usage of smart phones equipped with GPS navigation unit have increased rapidly from 3% to more than 20% in the past five years. Hence, a smart phone can be used efficiently for personal safety or various other protection purposes especially for women. This app can be activated by a single click when the user feels she is in danger. This application communiqués the user's location to the registered contacts for every few seconds in the form of message. Thus, it acts like a sentinel following behind the person till the user feels she is safe. This paper presents analysis a unique feature of this application to send the message to the registered contacts continuously till they are pressing 'HELP' button. Continuous location tracking information via SMS helps to find the location of the victim quickly and can be rescued safely. This application aims to ensure women safety. This is achieved by addressing the circumstances that compromise the safety of women in today's day and age. This app ensures women are not put into such situations through various features offered by our system.

INTRODUCTION

Introduction of the Project:

In today's world, it is not safe for a person to travel alone at night especially for women; it will be high time to travel alone because a woman is not highly strong as men to protect herself from them. The good way to reduce chances in becoming a victim of violent crime (robbery, sexual assault, rape, domestic violence) is to identify and call on resources to help you out of unsafe situations. Whether you are in instant trouble or got separated from friends during night and do not know to reach home, having these apps on your phone can diminish our risk and bring assistance when we require it. In this paper, we present Security Alert an application for smartphones working over android platform. National Crime Records Bureau of India, reported incidents of crime against women increased 6.4% during 2012,and a crime against a woman is committed every three minutes. 65% of Indian men believe women.

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. Few crimes against ladies particularly rape cases were terribly dread and fearful. 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 night generally, it's necessary to remain alert and safe. Although the government is taking necessary measures for their safety, still, there are free safety apps for women that can help them to stay safe. Most of the females these days carry their smartphone with them, so it is necessary to have at least one the personal safety apps installed. Such a security app for ladies will definitely facilitate in a way or the opposite. This is user-friendly application that can be accessed by anyone who has installed it in their smart phones. Our intention is to provide you with fastest and simplest way to contact your nearest help. In this system user needs to feed three contact numbers, in case of emergency on moving the phone up and down thrice, the system sends SMS and calls on one of the numbers feeded into the system with the location.The phone starts vibrating and siren starts ringing. This features for both everyday safety and real emergencies, making it an ultimate tool for all.

should tolerate violence in order to keep the family together and women

that 24% of Indian men had committed sexual violence at some point during their lives. Our motto in developing this app is to provide a safe environment to women through smart phone as today most of the people are carrying smart phones to wherever they go. Of course, the Delhi Nirbhaya case has made the Government to make the laws tougher, but even though the sexual crime rate in India have not decreased. So, it is better to take our own safety measures

rather than becoming a victim of those crimes. This paper is organised as follows. Section– II describes the literature survey of the existing apps and the related work of creating the application. Section – III presents the proposed work and key features of the application. Consequently, the implementation of the application is described in the section IV. The section – V presents the testing results of the application after installing in the smart phone. Finally, section –VI concludes the paper and presents the future work for the paper explained in the Section – V and the work presents the final conclusion in the Section – VI. II. RELATED WORK As a part of literature survey, we investigated some applications of women safety that already exist in market. The aim is to observe how these applications work and to see how they can be improved and how are they different. To date it is identified that the following Android Apps of women security are good and are offering relatively similar service. A. WOMEN'S SECURITY: This app is developed by AppSoftIndia. The key features of the app are: the user has to save some details. These details include: Email address and password of the user, Email address and mobile number of the recipient and a text message. Then, app is loaded as a "widget", so that when the user touches the app, it alerts the recipient. Another key feature of app is that it records the voice of surroundings for about 45 seconds and this recorded voice, text message containing location coordinates of the user is sent to the recipient mobile number. B. POLICE NEARBY: This app is developed by Big Systems in 2013.The police nearby scanner android app is built with the aim to connect citizens & students to their nearest police stations city wise at one click and will permit the community to become more involved right from your Android Smart phones. Any local, state, or school, College police department as well as other law enforcement agencies can use Police scanner Android App to provide you with enhanced service and get better communication. Police nearby app is free to download without signup. C. SCREAM ALARM: Scream Alarm, an android application developed by Go Pal AppMaker in November 2013. By clicking this app, it generates a very high-volume scream in times of distress when the lungs of a person fail in screaming in trouble. The generated scream is in a woman's voice is severely helpful in discouraging the potential strong trouble makers. The only work done by this application is whenever the person pushes or touches the application, the phone screams loudly with a woman's voice.

TECHNOLOGY USED

Introduction of Android studio, java:

In recent times, Android became the world's most popular operating system for various reasons. As an Android programmer, I want to share what the Android Studio is? Android Studio is an IDE for Google Android Development launched on 16th May 2013, during Google's I/O 2013 event. Android Studio contains all the Android tools to design, test, debug, and profile your application. The Android Studio uses to manage your project, a Build Automation Tool.

For developing your first app, you need to download Android Studio for your preferred platform (Windows®, Mac OS X, or Linux) from the . Android Studio can develop and test your application on either a real device or an emulator.

Android Studio has many exciting features that can help you to develop your Android application like :

Powerful code editor with smart editing and code re-factoring.

Emulator to show your code output in various resolutions, including Nexus 4, Nexus 7, Nexus 10, and many other android phones.

Gradle based build support.

Maven Support.

Template-based wizards.

Dracula Theme Environment to enjoy your coding experience.

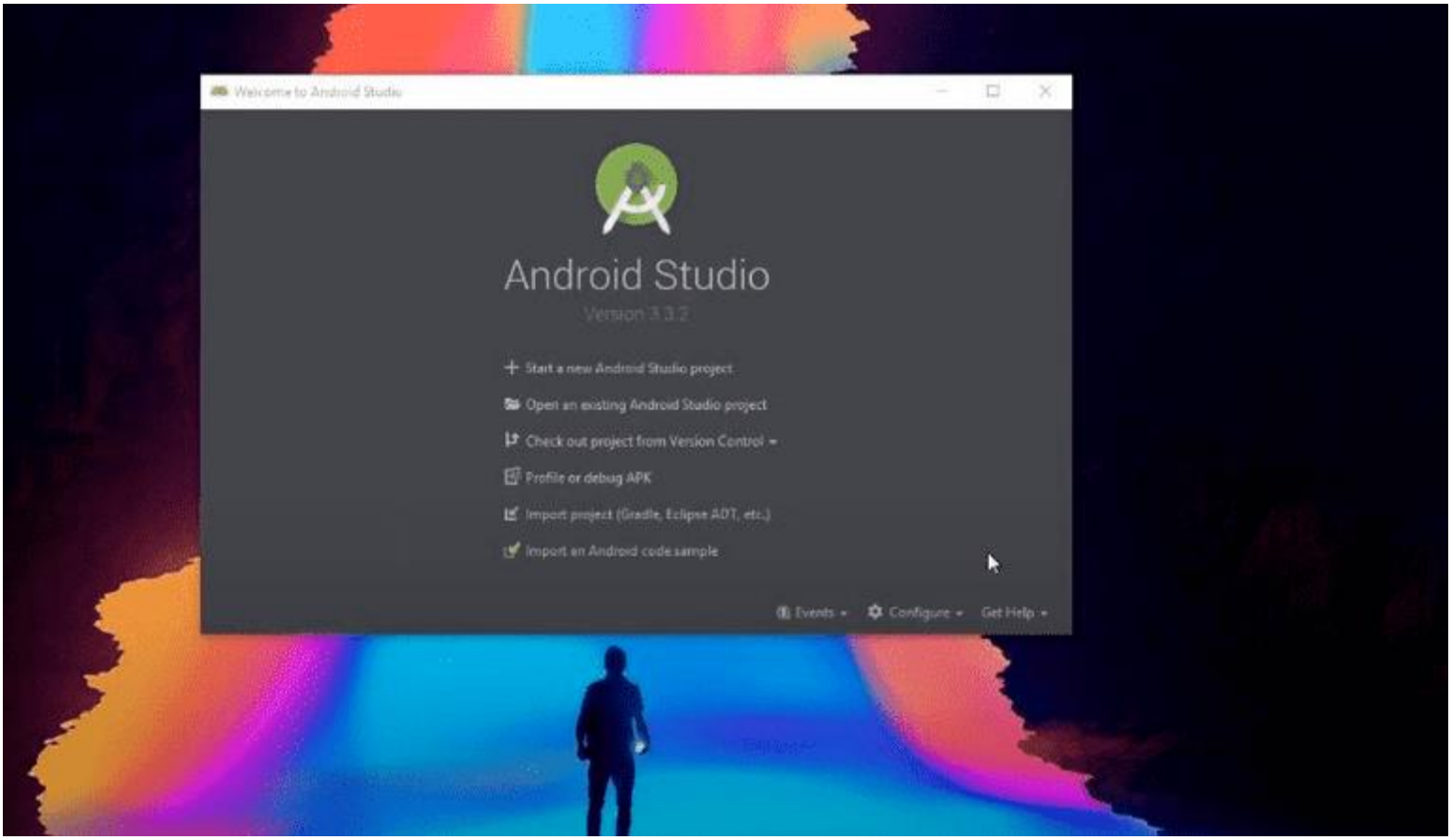
You can experience all the awesome features by using Android Studio in-ha

In this article, we're going to build a simple "Hello World" Android Application.

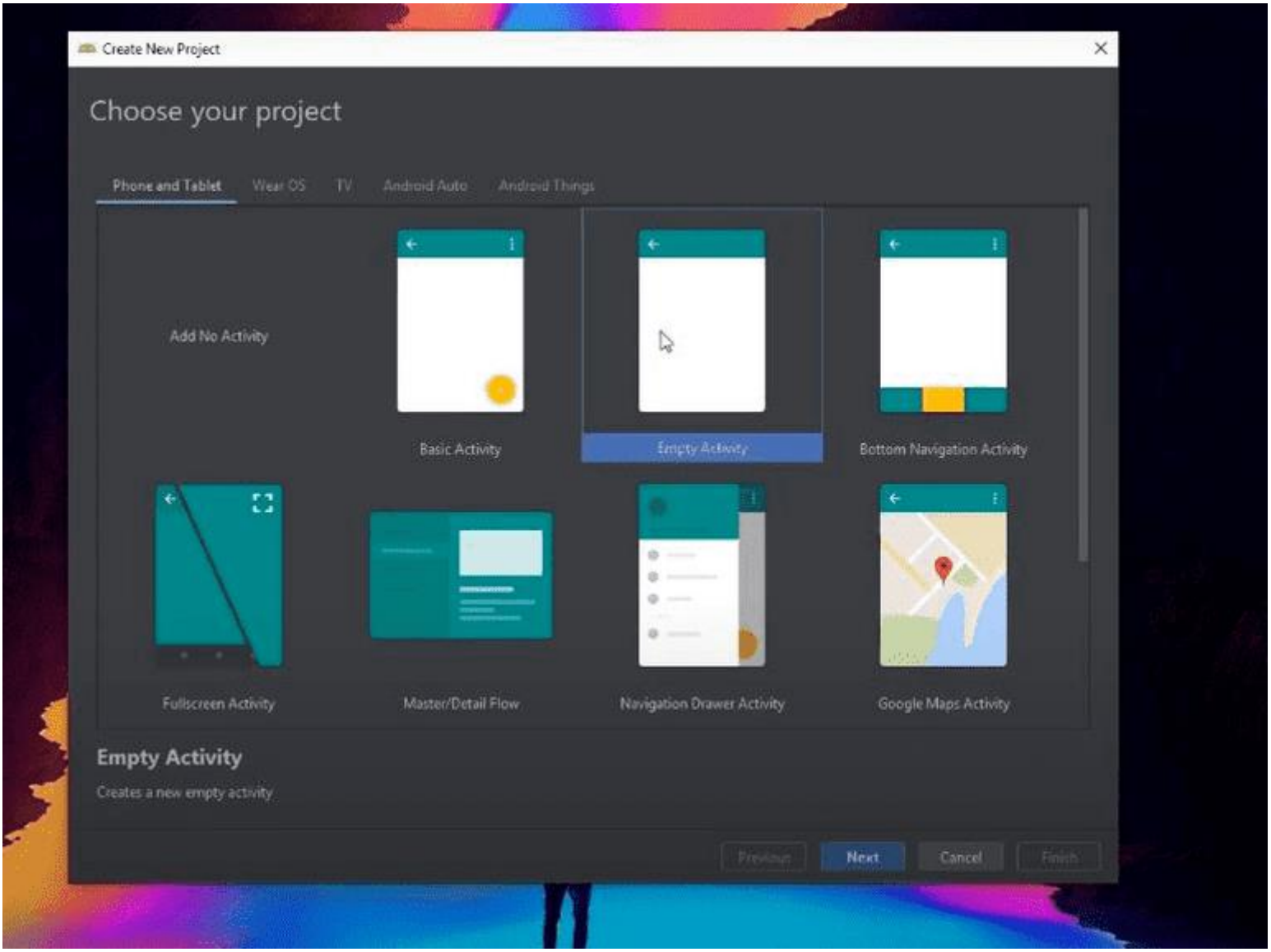
Requirement: Make sure you have Android Studio installed. If you don't, refer to this link. It's pretty straightforward.

To create the application, we will follow these steps through the process in a pretty painless manner.

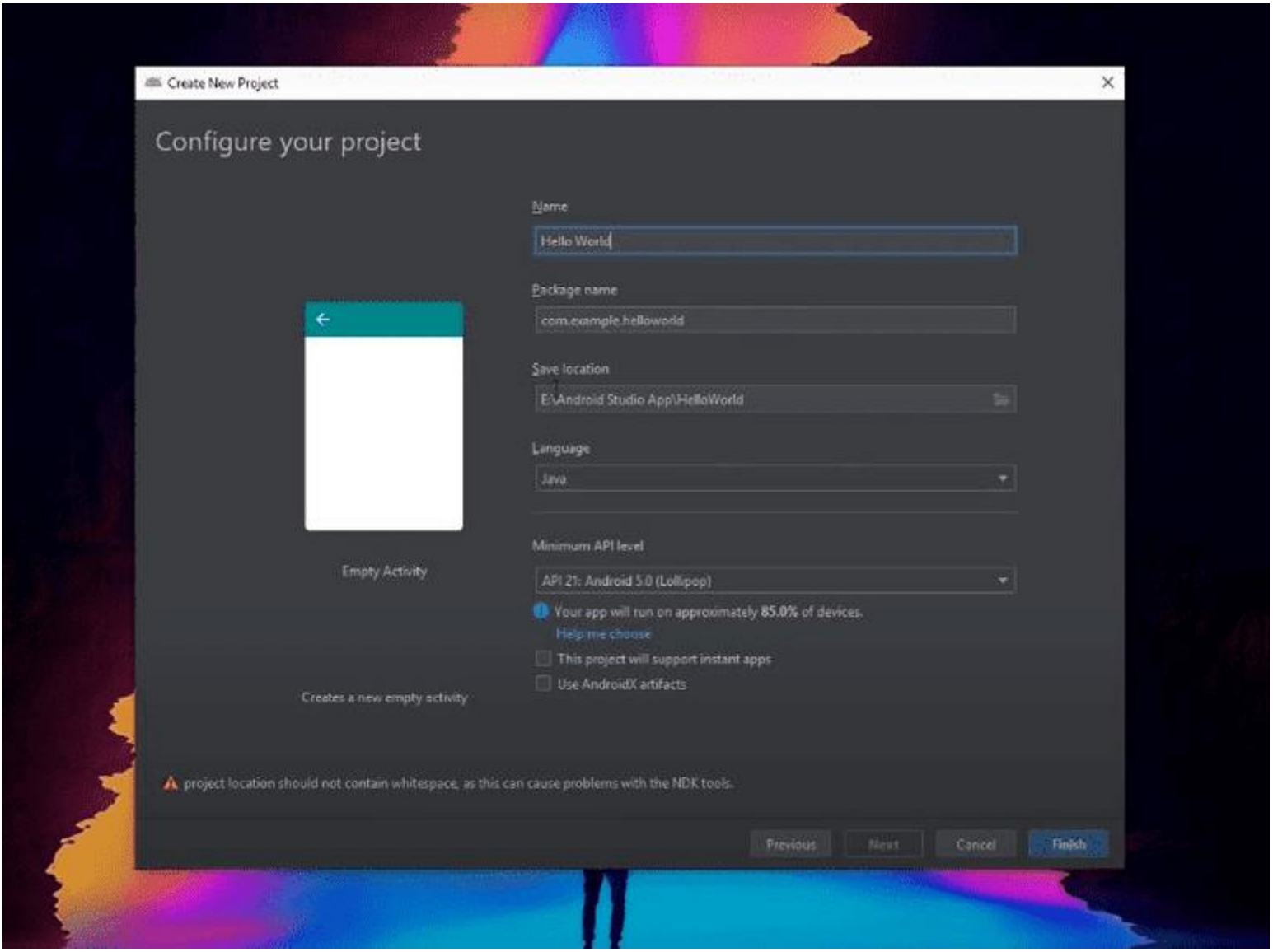
Step 1. Open your Android Studio after installing, and this following screen appears after starting:



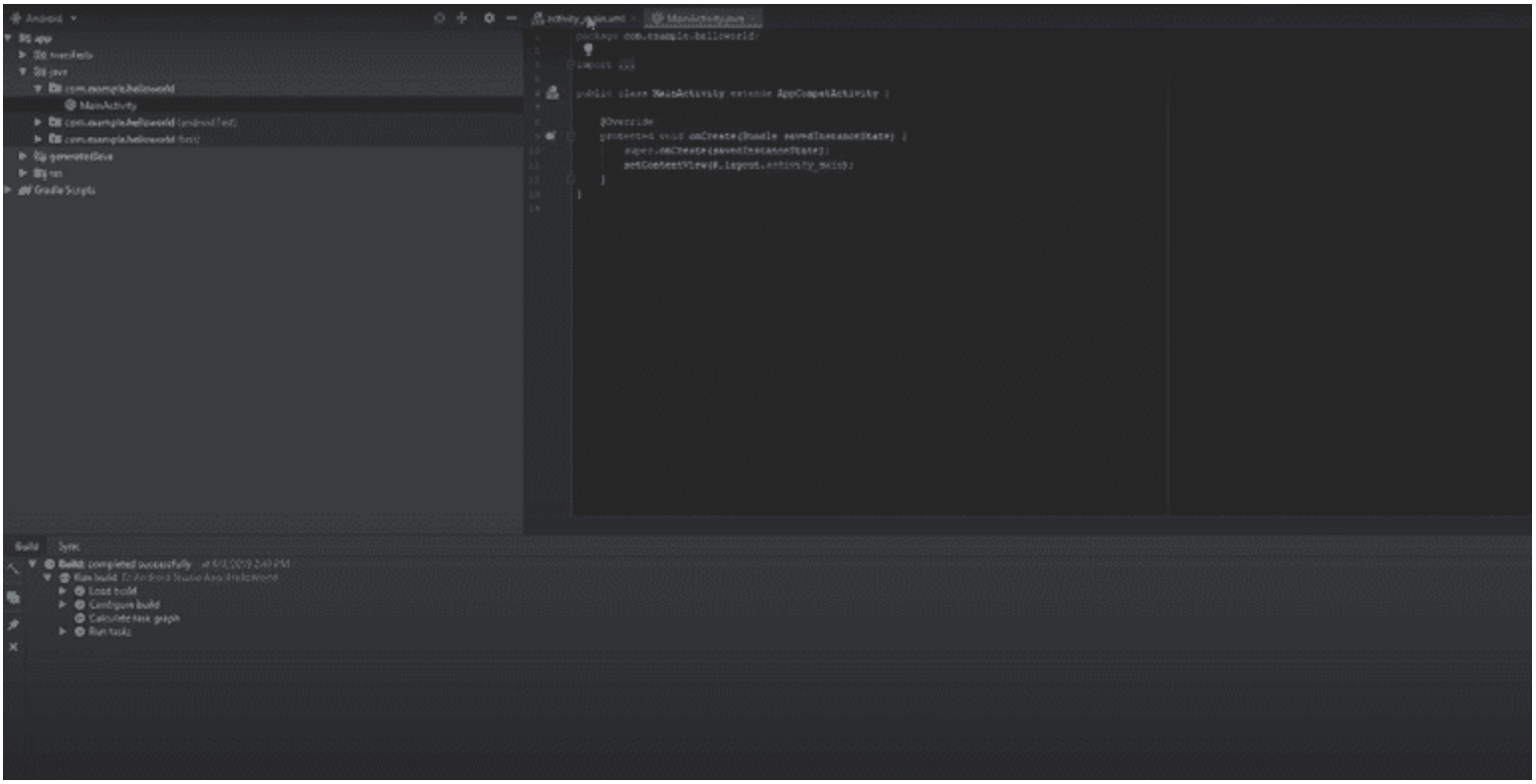
Step 2. Click on "Start a New Android Project" and choose the activity we want the project to be. For me, I'm selecting an empty activity.



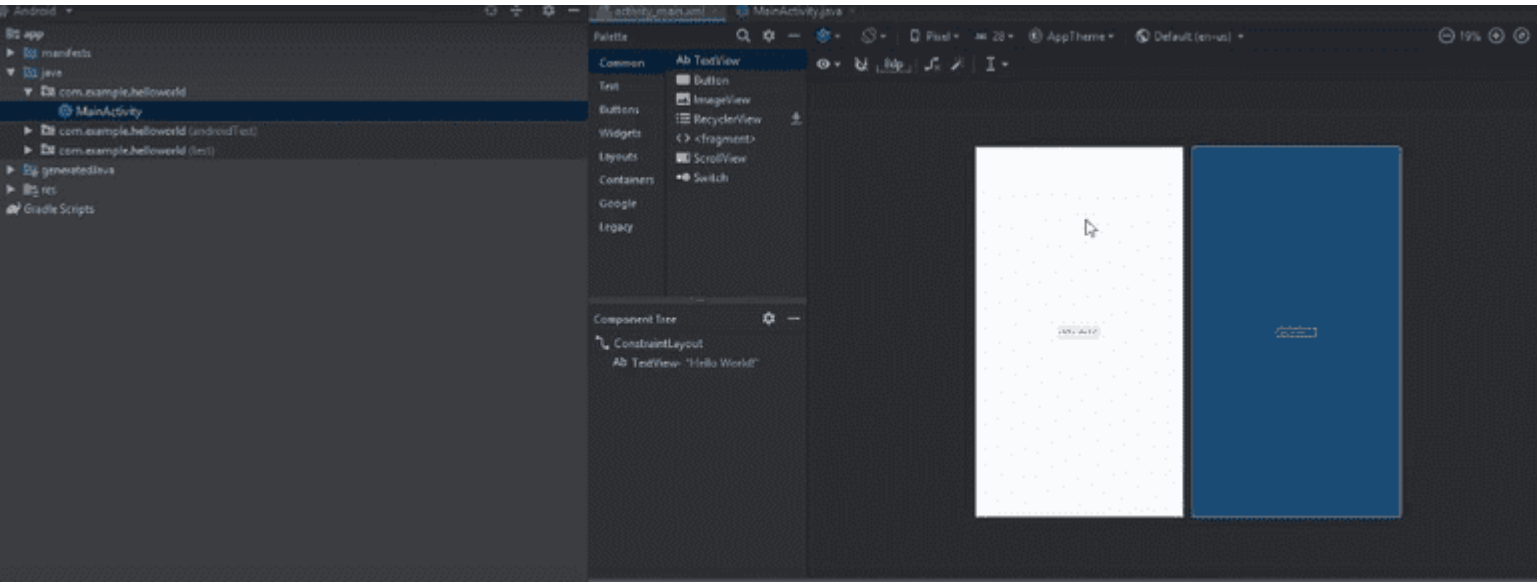
Step 3. Configure your project by changing the project's name and the desired language the user wants to code with. Android Studio supports two languages, i.e., Java and Kotlin. The user can also choose their desired API, like which android version they want to run, and then click on finish.



Step 4.Wait until your Gradle build finishes successfully and find your java and .xml file from folders of the app, as shown in the given image.



Step 5. Click onto your .xml file to see the initial layout of the file like the given image. You can drag and drop from the palette's items and change your layout by dragging and dropping.



OBJECTIVE OF THE PROJECT

The objective of this project is to let the students apply the programming knowledge into a real- world situation/problem and exposed the students how programming skills helps in developing a good software.

- Write programs utilizing modern software tools.
- Apply object-oriented programming principles effectively when developing small to medium sized projects.
- Write effective procedural code to solve small to medium sized problems.
- Students will demonstrate a breadth of knowledge in computer science, as exemplified in the areas of systems, theory and software development.
- Students will demonstrate ability to conduct a research or applied Computer Science project, requiring writing and presentation skills which exemplify scholarly style in computer science

In the context of this project, our main objective is to speed up the transactions done by customers. No manual transactions needed generally. The second objective is to save the time which is very important now-a-days.
It will include other objectives such as:

- To render accurate services to customer.
- The reduction of fraudulent activities.
- To achieve speedy processing of customer data.
- To reduce error processing, the guarantee of increased security.

ADVANTAGES OF THE PROJECT

Safety is one of the foremost concerns, and with the development of safety apps for women, users can stay in constant contact with their friends and family.

Various mobile apps are based on GPS location permitting their families to detect the exact location. This will allow them to know the correct oath while traveling with their family and keep track of their real-time location with these safety apps.

The main motive of these safety apps is to send alerts to people who can act in time. Instant alerts can provide immediate help and save women from becoming a victim of attacks.

Various apps help to detect the safety levels in your area. One such women safety app is SafetiPIn, as it helps working women get acknowledgment of locality so that they can take all required precautions.

The women safety apps enable the women to inform you of the nearest police stations in any area, useful in all emergencies.

SYSTEM SPECIFICATIONS

Hardware Requirements:

Processor – 620 Snapdragon

RAM – 2GB

Hard Disk – 1GB

Processor Speed – 2.4GHZ

Software Requirements:

Operating System –android

IMPLEMENTATION PHASE

This android application is useful when the user is in some problem or needs any help. When the user opens this application, can see a HELP button. Also, they can store a message and 3 contact numbers. When the user is in some difficulty or needs any help, they simply need to open the app and click on the “HELP” button. This application sends the message to those contact numbers which he has stored. The total evaluation can be done in three major steps which are described individually. Evaluation describes the whole implementation of the application in three major steps. The first major step is to enter the contact details in the application created. Those contacts can be our relatives, friends and chief cop of the particular city the person we live in. When the application is installed in the smart phone for the first time the above contact details should be provided. The application will save the given information. The second major step is to send the GPS information (GPS information can be in the form of the Coordinates or the URL which leads to the location of the person any stock map application in the likes of third-party application like Google, Nokia etc.) to the registered contacts at danger times or when the person is needed to be rescued. This step is followed only when the rescue button is pressed in application. The whole process of this step is done only when the device is connected to the proper mobile network and location service in the device is switched on (GPS). The third major step comprises of work done in sending the message containing location URL continuously to the registered contacts. Here, we have set the time interval as 5 minutes, so for every five minutes of time-lapse, SMS is sent to the registered contacts. Therefore, the exact location of the person can be tracked by the application.

SOURCE CODE:

```
package com.prabhu.womensafetyapp;



import android.annotation.SuppressLint;
import android.app.Service;
import android.content.Context;
import android.content.Intent;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.os.Handler;
import android.os.HandlerThread;
import android.os.IBinder;
import android.os.Looper;
import android.os.Message;
import android.telephony.SmsManager;
import android.util.Log;
import android.widget.Toast;

@SuppressLint("HandlerLeak")


public class BgService extends Service implements AccelerometerListener{

  String str_address;


  private Looper mServiceLooper;
  private ServiceHandler mServiceHandler;

  // Handler that receives messages from the thread.
  private final class ServiceHandler extends Handler {

     public ServiceHandler(Looper looper) {

       super(looper);
     }
    @Override
    public void handleMessage(Message msg) {

      // REPLACE THIS CODE WITH YOUR APP CODE
        // Wait before Toasting Service Message
      // to give the Service Started message time to display.

       // Toast Service Message.
/*       Context context = getApplicationContext();
     CharSequence text = "Service Message";
     int duration = Toast.LENGTH_LONG;
     Toast toast = Toast.makeText(context, text, duration);
     toast.show();
 */

       // Service can stop itself using the stopSelf() method.
     // Not using in this app.  Example statement shown below.
       //stopSelf(msg.arg1);
    }
  }


@Override
public IBinder onBind(Intent arg0) {

   return null;
  }
```

```
@Override
public void onCreate() {
  super.onCreate();


   if (AccelerometerManager.isSupported(this)) {

        AccelerometerManager.startListening(this);
     }
   HandlerThread thread = new HandlerThread("ServiceStartArguments",android.os.Process.THREAD_PRIORITY_BACKGROUND);
   thread.start();

   mServiceLooper = thread.getLooper();

   mServiceHandler = new ServiceHandler(mServiceLooper);
}


@Override
public int onStartCommand(Intent intent, int flags, int startId) {

  // Get message from message pool using handler.
   Message msg = mServiceHandler.obtainMessage();

   // Set start ID (unique to the specific start) in message.
   msg.arg1 = startId;

   // Send message to start job.
   mServiceHandler.sendMessage(msg);

   // Toast Service Started message.
// Context context = getApplicationContext();




/* CharSequence text = "Service Started";
  int duration = Toast.LENGTH_SHORT;
  Toast toast = Toast.makeText(context, text, duration);
  toast.show();
 */

  // Start a sticky.
  return START_STICKY;
}



public class GeocoderHandler extends Handler {
    @Override
    public void handleMessage(Message message) {

       Toast.makeText(getApplicationContext(), "geocoderhandler started", Toast.LENGTH_SHORT).show();


        switch (message.what) {
           case 1:
              Bundle bundle = message.getData();
              str_address = bundle.getString("address");
             // TelephonyManager tmgr=(TelephonyManager)BgService.this.getSystemService(Context.TELEPHONY_SERVICE);
            //  String ph_number=tmgr.getLine1Number();
              SQLiteDatabase db;
             db=openOrCreateDatabase("NumDB", Context.MODE_PRIVATE, null);
             Cursor c=db.rawQuery("SELECT * FROM details", null);
             Cursor c1=db.rawQuery("SELECT * FROM SOURCE", null);

              String source_ph_number=c1.getString(0);
                while(c.moveToNext())
             {
              String target_ph_number=c.getString(1);
```

```
        //        SmsManager smsManager=SmsManager.getDefault();
        //        smsManager.sendTextMessage("+918121668944", "+918121668944", "Please help me. I need help immediately. This is where i am
now:"+str_address, null, null);

              Toast.makeText(getApplicationContext(), "Source:"+source_ph_number+"Target:"+target_ph_number, Toast.LENGTH_SHORT).show();

             }
                db.close();

               break;
            default:
               str_address = null;
         }
        Toast.makeText(getApplicationContext(), str_address, Toast.LENGTH_SHORT).show();

     }
  }



 @Override
 public void onAccelerationChanged(float x, float y, float z) {
    // TODO Auto-generated method stub

 }
 @Override
 public void onShake(float force) {

    GPSTracker gps;
    gps = new GPSTracker(BgService.this);
     if(gps.canGetLocation()){

        double latitude = gps.getLatitude();
        double longitude = gps.getLongitude();

        RGeocoder RGeocoder = new RGeocoder();
        RGeocoder.getAddressFromLocation(latitude, longitude,getApplicationContext(), new GeocoderHandler());
        Toast.makeText(getApplicationContext(), "onShake", Toast.LENGTH_SHORT).show();

     }
     else{
        gps.showSettingsAlert();
    }

 }




 // onDestroy method.   Display toast that service has stopped.
 @Override
 public void onDestroy() {
    super.onDestroy();

    // Toast Service Stopped.
    Context context = getApplicationContext();

      Log.i("Sensor", "Service  distroy");

        if (AccelerometerManager.isListening()) {

            AccelerometerManager.stopListening();

        }

    CharSequence text = "Women Safety App Service Stopped";
    int duration = Toast.LENGTH_SHORT;
    Toast toast = Toast.makeText(context, text, duration);
    toast.show();


 }
```

```
}
package com.prabhu.womensafetyapp;


import android.app.Activity;
import android.app.AlertDialog.Builder;
import android.content.Context;
import android.content.Intent;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.view.View;

public class Display extends Activity{


  Cursor c;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_display);


    SQLiteDatabase db;
    db=openOrCreateDatabase("NumDB", Context.MODE_PRIVATE, null);

       c=db.rawQuery("SELECT * FROM details", null);
       if(c.getCount()==0)
       {
          showMessage("Error", "No records found.");
          return;
       }
       StringBuffer buffer=new StringBuffer();
       while(c.moveToNext())
       {
          buffer.append("Name: "+c.getString(0)+"\n");
          buffer.append("Number: "+c.getString(1)+"\n");
       }
       showMessage("Details", buffer.toString());
    Intent i_startservice=new Intent(Display.this,BgService.class);
    startService(i_startservice);


  }

  public void showMessage(String title,String message)
   {
      Builder builder=new Builder(this);
      builder.setCancelable(true);
      builder.setTitle(title);
      builder.setMessage(message);
      builder.show();
   }




  public void back(View v) {
    Intent i_back=new Intent(Display.this,MainActivity.class);
    startActivity(i_back);

    }



}
```

```
package com.prabhu.womensafetyapp;

import android.app.AlertDialog;
import android.app.Service;
import android.content.Context;
import android.content.DialogInterface;
import android.content.Intent;
import android.location.Location;
import android.location.LocationListener;
import android.location.LocationManager;
import android.os.Bundle;
import android.os.IBinder;
import android.provider.Settings;
import android.util.Log;

public class GPSTracker extends Service implements LocationListener {

  private final Context mContext;

  // flag for GPS status
  boolean isGPSEnabled = false;

  // flag for network status
  boolean isNetworkEnabled = false;

  // flag for GPS status
  boolean canGetLocation = false;

  Location location; // location
  double latitude; // latitude
  double longitude; // longitude

  // The minimum distance to change Updates in meters
  private static final long MIN_DISTANCE_CHANGE_FOR_UPDATES = 10; // 10 meters

  // The minimum time between updates in milliseconds
  private static final long MIN_TIME_BW_UPDATES = 1000 * 60 * 1; // 1 minute

  // Declaring a Location Manager
  protected LocationManager locationManager;

  public GPSTracker(Context context) {
    this.mContext = context;
    getLocation();
  }

  public Location getLocation() {
    try {
      locationManager = (LocationManager) mContext
          .getSystemService(LOCATION_SERVICE);

      // getting GPS status
      isGPSEnabled = locationManager
          .isProviderEnabled(LocationManager.GPS_PROVIDER);

      // getting network status
      isNetworkEnabled = locationManager
          .isProviderEnabled(LocationManager.NETWORK_PROVIDER);

      if (!isGPSEnabled && !isNetworkEnabled) {
        // no network provider is enabled
      } else {
        this.canGetLocation = true;
        if (isNetworkEnabled) {
          locationManager.requestLocationUpdates(
              LocationManager.NETWORK_PROVIDER,
              MIN_TIME_BW_UPDATES,
              MIN_DISTANCE_CHANGE_FOR_UPDATES, this);
          Log.d("Network", "Network");
```

```
            if (locationManager != null) {
              location = locationManager
                  .getLastKnownLocation(LocationManager.NETWORK_PROVIDER);
              if (location != null) {
                latitude = location.getLatitude();
                longitude = location.getLongitude();
              }
            }
          }
          // if GPS Enabled get lat/long using GPS Services
          if (isGPSEnabled) {
            if (location == null) {
              locationManager.requestLocationUpdates(
                  LocationManager.GPS_PROVIDER,
                  MIN_TIME_BW_UPDATES,
                  MIN_DISTANCE_CHANGE_FOR_UPDATES, this);
              Log.d("GPS Enabled", "GPS Enabled");
              if (locationManager != null) {
                location = locationManager
                    .getLastKnownLocation(LocationManager.GPS_PROVIDER);
                if (location != null) {
                  latitude = location.getLatitude();
                  longitude = location.getLongitude();
                }
              }
            }
          }

        } catch (Exception e) {
          e.printStackTrace();
        }

        return location;
    }

    /**
     * Stop using GPS listener
     * Calling this function will stop using GPS in your app
     * */
    public void stopUsingGPS(){
        if(locationManager != null){
            locationManager.removeUpdates(GPSTracker.this);
        }
    }

    /**
     * Function to get latitude
     * */
    public double getLatitude(){
        if(location != null){
            latitude = location.getLatitude();
        }

        // return latitude
        return latitude;
    }

    /**
     * Function to get longitude
     * */
    public double getLongitude(){
        if(location != null){
            longitude = location.getLongitude();
        }

        // return longitude
        return longitude;
    }

    /**
     * Function to check GPS/wifi enabled
     * @return boolean
```

```
     * **/
    public boolean canGetLocation() {
        return this.canGetLocation;
    }

    /**
     * Function to show settings alert dialog
     * On pressing Settings button will lauch Settings Options
     * **/
    public void showSettingsAlert(){
        AlertDialog.Builder alertDialog = new AlertDialog.Builder(mContext);

        // Setting Dialog Title
        alertDialog.setTitle("GPS is settings");

        // Setting Dialog Message
        alertDialog.setMessage("GPS is not enabled. Do you want to go to settings menu?");

        // On pressing Settings button
        alertDialog.setPositiveButton("Settings", new DialogInterface.OnClickListener() {
            public void onClick(DialogInterface dialog,int which) {
                Intent intent = new Intent(Settings.ACTION_LOCATION_SOURCE_SETTINGS);
                mContext.startActivity(intent);
            }
        });

        // on pressing cancel button
        alertDialog.setNegativeButton("Cancel", new DialogInterface.OnClickListener() {
            public void onClick(DialogInterface dialog, int which) {
            dialog.cancel();
            }
        });

        // Showing Alert Message
        alertDialog.show();
    }

    @Override
    public void onLocationChanged(Location location) {
    }

    @Override
    public void onProviderDisabled(String provider) {
    }

    @Override
    public void onProviderEnabled(String provider) {
    }

    @Override
    public void onStatusChanged(String provider, int status, Bundle extras) {
    }

    @Override
    public IBinder onBind(Intent arg0) {
        return null;
    }

}
package com.prabhu.womensafetyapp;

import android.os.Bundle;
import android.view.View;
import android.app.Activity;
import android.content.Intent;

public class Instructions extends Activity {

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

```
  public void back(View v) {
    Intent i_back=new Intent(Instructions.this,MainActivity.class);
    startActivity(i_back);

    }




}
package com.prabhu.womensafetyapp;

import android.app.Activity;
import android.content.Context;
import android.content.Intent;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;

public class Register extends Activity {

  EditText name,number;



  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_register);
    //Toast.makeText(getApplicationContext(), "Activity created",Toast.LENGTH_LONG).show();

  }



  public void display(View v) {
    Intent i_view=new Intent(Register.this,Display.class);
    startActivity(i_view);

    }

  public void instructions(View v) {
    Intent i_help=new Intent(Register.this,Instructions.class);
    startActivity(i_help);

    }

  public void storeInDB(View v) {
    Toast.makeText(getApplicationContext(), "save started",Toast.LENGTH_LONG).show();
    name = (EditText) this.findViewById(R.id.editText1);
    number = (EditText) this.findViewById(R.id.editText2);
    String str_name=name.getText().toString();
    String str_number=number.getText().toString();
    SQLiteDatabase db;
    db=openOrCreateDatabase("NumDB", Context.MODE_PRIVATE, null);
    //Toast.makeText(getApplicationContext(), "db created",Toast.LENGTH_LONG).show();

    db.execSQL("CREATE TABLE IF NOT EXISTS details(name VARCHAR,number VARCHAR);");
    //Toast.makeText(getApplicationContext(), "table created",Toast.LENGTH_LONG).show();

    Cursor c=db.rawQuery("SELECT * FROM details", null);
      if(c.getCount()<2)
      {
        db.execSQL("INSERT INTO details VALUES('"+str_name+"','"+str_number+"');");
        Toast.makeText(getApplicationContext(), "Successfully Saved",Toast.LENGTH_SHORT).show();
      }
      else {

        db.execSQL("INSERT INTO details VALUES('"+str_name+"','"+str_number+"');");
```

```
            Toast.makeText(getApplicationContext(), "Maximun Numbers limited reached. Previous numbers are replaced.",Toast.LENGTH_SHORT).show();
        }


    db.close();

    }









}
package com.prabhu.womensafetyapp;


import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;

public class MainActivity extends Activity {

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


  public void register(View v) {
    Intent i_register=new Intent(MainActivity.this,Register.class);
    startActivity(i_register);

  }

public void display_no(View v) {
  Intent i_view=new Intent(MainActivity.this,Display.class);
  startActivity(i_view);

  }

public void instruct(View v) {
  Intent i_help=new Intent(MainActivity.this,Instructions.class);
   startActivity(i_help);
}

public void verify(View v) {
  Intent i_verify=new Intent(MainActivity.this,Verify.class);
   startActivity(i_verify);
}
}
package com.prabhu.womensafetyapp;

import java.io.IOException;
import java.util.List;
import java.util.Locale;

import android.content.Context;
import android.location.Address;
import android.location.Geocoder;
import android.os.Bundle;
import android.os.Handler;
import android.os.Message;
import android.util.Log;
```

```
public class RGeocoder {

  private static final String TAG = "LocationAddress";


  public void getAddressFromLocation(final double latitude, final double longitude,
        final Context context, final Handler handler) {

    Thread thread = new Thread() {
        @Override
        public void run() {
            Geocoder geocoder = new Geocoder(context, Locale.getDefault());
            String result = null;
            try {

                List<Address> addressList = geocoder.getFromLocation(latitude, longitude, 1);
                if (addressList != null && addressList.size() > 0) {
                    Address address = addressList.get(0);
                    StringBuilder sb = new StringBuilder();
                    for (int i = 0; i < address.getMaxAddressLineIndex(); i++) {
                        sb.append(address.getAddressLine(i)).append("\n");
                    }
                    sb.append(address.getLocality()).append("\n");
                    sb.append(address.getPostalCode()).append("\n");
                    sb.append(address.getCountryName());
                    result = sb.toString();


                }
            }


            catch (IOException e) {
                Log.e(TAG, "Unable connect to Geocoder", e);
            }


            finally {
                Message message = Message.obtain();
                message.setTarget(handler);
                if (result != null) {
                    message.what = 1;
                    Bundle bundle = new Bundle();
                    result = "Latitude: " + latitude + " Longitude: " + longitude +
                            "\n\nAddress:\n" + result;
                    bundle.putString("address", result);
                    message.setData(bundle);
                } else {
                    message.what = 1;
                    Bundle bundle = new Bundle();
                    result = "Latitude: " + latitude + " Longitude: " + longitude +
                            "\n Unable to get address for this lat-long.";
                    bundle.putString("address", result);
                    message.setData(bundle);
                }
                message.sendToTarget();
            }
        }
    };
    thread.start();




  }
}
package com.prabhu.womensafetyapp;

import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
import android.view.MenuItem;
```

```
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;
import android.support.v4.app.NavUtils;
import android.annotation.TargetApi;
import android.content.Context;
import android.content.Intent;
import android.database.sqlite.SQLiteDatabase;
import android.os.Build;

public class Verify extends Activity {

  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_verify);
    // Show the Up button in the action bar.
    setupActionBar();



  }


  public void verify_no(View v) {
    EditText source_no = (EditText) this.findViewById(R.id.editText1);
    String str_source_no=source_no.getText().toString();
    SQLiteDatabase db;
    db=openOrCreateDatabase("NumDB", Context.MODE_PRIVATE, null);
  // if(source_no.getText()!=null){

    db.execSQL("CREATE TABLE IF NOT EXISTS source(number VARCHAR);");
    db.execSQL("INSERT INTO source VALUES('"+str_source_no+"');");
    Toast.makeText(getApplicationContext(), str_source_no+" Successfully Saved",Toast.LENGTH_SHORT).show();
    db.close();
    back(v);
//    }
//    else{
//      Toast.makeText(getApplicationContext(), "Enter Your Number.",Toast.LENGTH_SHORT).show();
  // }
  }







  /**
   * Set up the {@link android.app.ActionBar}, if the API is available.
   */
  @TargetApi(Build.VERSION_CODES.HONEYCOMB)
  private void setupActionBar() {
    if (Build.VERSION.SDK_INT >= Build.VERSION_CODES.HONEYCOMB) {
      getActionBar().setDisplayHomeAsUpEnabled(true);
    }
  }

  @Override
  public boolean onCreateOptionsMenu(Menu menu) {
    // Inflate the menu; this adds items to the action bar if it is present.
    getMenuInflater().inflate(R.menu.verify, menu);
    return true;
  }

  @Override
  public boolean onOptionsItemSelected(MenuItem item) {
    switch (item.getItemId()) {
    case android.R.id.home:
      // This ID represents the Home or Up button. In the case of this
      // activity, the Up button is shown. Use NavUtils to allow users
      // to navigate up one level in the application structure. For
      // more details, see the Navigation pattern on Android Design:
```

```
        //
        // http://developer.android.com/design/patterns/navigation.html#up-vs-back
        //
        NavUtils.navigateUpFromSameTask(this);
        return true;
    }
    return super.onOptionsItemSelected(item);
}


public void back(View v) {
    Intent i_back=new Intent(Verify.this,MainActivity.class);
    startActivity(i_back);

    }

}
```

CONCLUSION:

The testing results of the mentioned three sections are provided with screen shots taken in various intervals of time from the root device and contact's device. Here, the root device means the device over which the rescue application is started; it means the user's device. The contact's device means the device to which the user's location information is sent continuously. For installing the application in the mobile phone, firstly in the settings, "allow nonmarket apps to be worked over the device" must be checked as shown in the following. depicts the settings of the device such that only by placing checkmark over the mentioned icon, the app will be installed on the device. The Security Alert app icon can be placed anywhere on the home screen of the smart phone so that we can immediately touch over the application when we are in danger. Once the application is installed on the mobile for the first time, the following screen will appear. depicts the HELP button and the settings icon. When you click on the settings icon will appear. depicts the custom message and the contact list blocks and save button.

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