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CLASS

- 2152

COURSE

- Mobile Applications Development 343



WOMAN SAFTY APP

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Introduction:

The Women's Safety Android Application is designed to help women protect themselves in case of danger. The application alerts one of the user's designated relatives with a message and her current location via a map. The purpose of this report is to provide a detailed overview of the features and functionality of the Women's Safety Android Application.

Registration Process:

The user starts by registering an account by providing their personal information including name, age, gender, and phone number along with the country key. The information is collected to create an account for the user on the application. This

information is necessary to ensure that the user can be easily identified in case of an emergency.

The application then sends a one-time password (OTP) verification code to the entered phone number through Firebase. The OTP is sent to verify that the phone number entered by the user is correct and belongs to the user. This helps to prevent unauthorized access to the user's account and ensures that the information entered is accurate.

Alert Interface:

After verifying the phone number, the user can enter the name and phone number of a relative. This relative is the person who will receive the alert message in case of an emergency. The relative's information is stored in the database and can be easily accessed in case of an emergency.

The alert interface is activated by shaking the phone in a certain way. The application is designed to detect the shaking of the phone and immediately send a message requesting assistance to the relative's phone. The message sent includes the user's current location, which is determined using GPS technology. This location information can be viewed on a map within the application.

In addition to sending the alert message, the user can also simulate contact with the relative from within the application. This feature allows the user to practice using the application and get familiar with its features.

Database Linking:

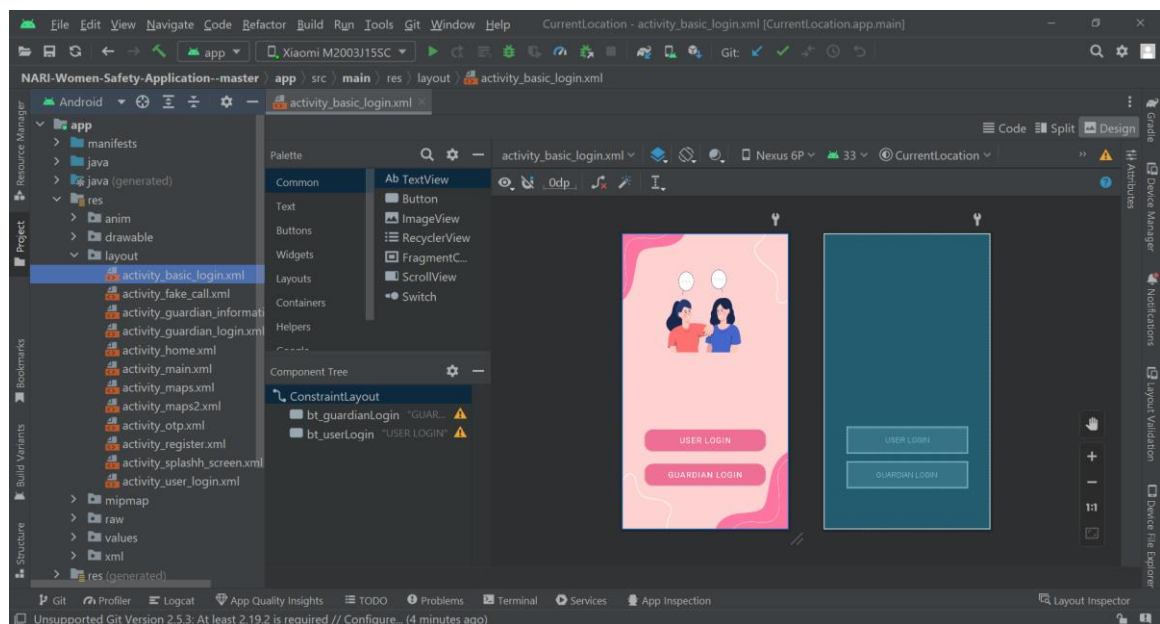
The relative verifies the request on their mobile phone and enters the phone number of the woman in question along with the country key. This links the relative and the woman in the Firebase database. This linking system ensures that the relative receives the alert message in case of an emergency and provides a direct connection between the two. This helps to ensure that the necessary assistance is provided to the user in a timely manner.

Conclusion:

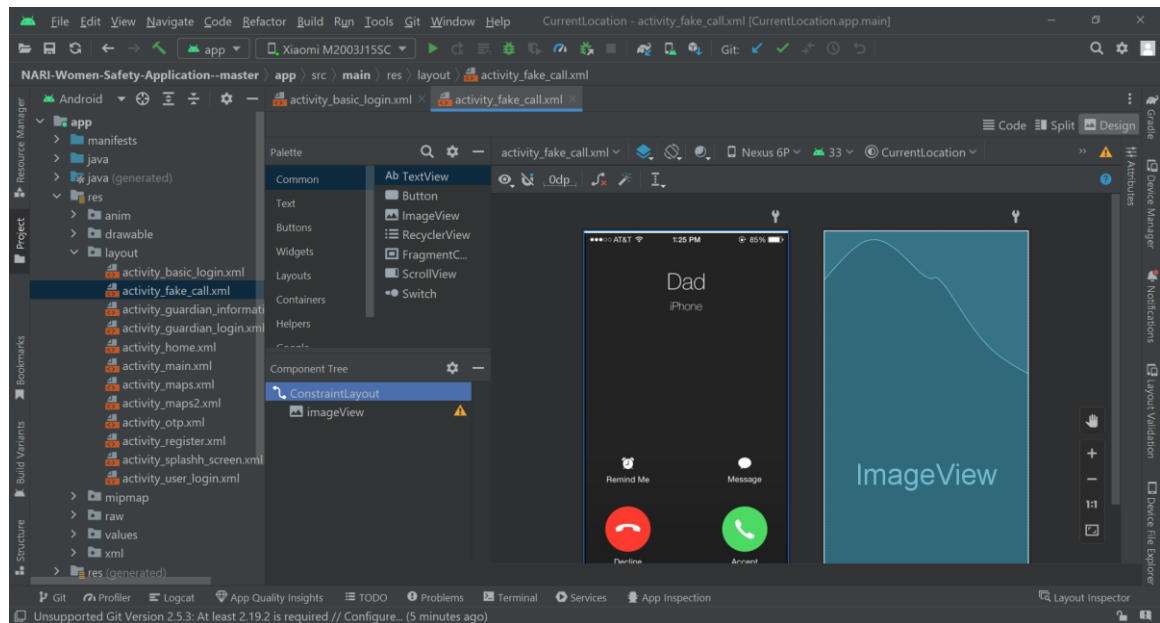
In conclusion, the Women's Safety Android Application provides a comprehensive solution for women to protect themselves in case of danger. The easy registration process, the alert interface, and the database linking system work seamlessly to provide the necessary assistance to the user in an emergency. The application is designed to be user-friendly and accessible to all, making it an effective tool for women's safety. Although the application is not yet completed and has some bugs that need to be resolved in the future, it has the potential to greatly enhance the safety of women and provide peace of mind in dangerous situations.

Screen Shots:

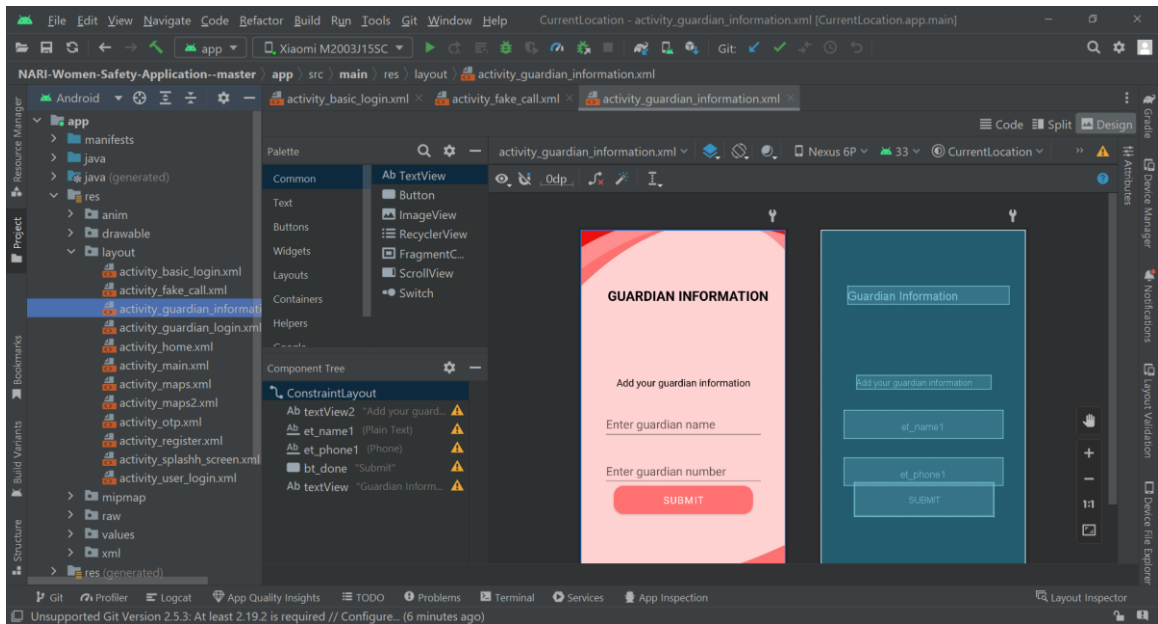
- activity_basic_login



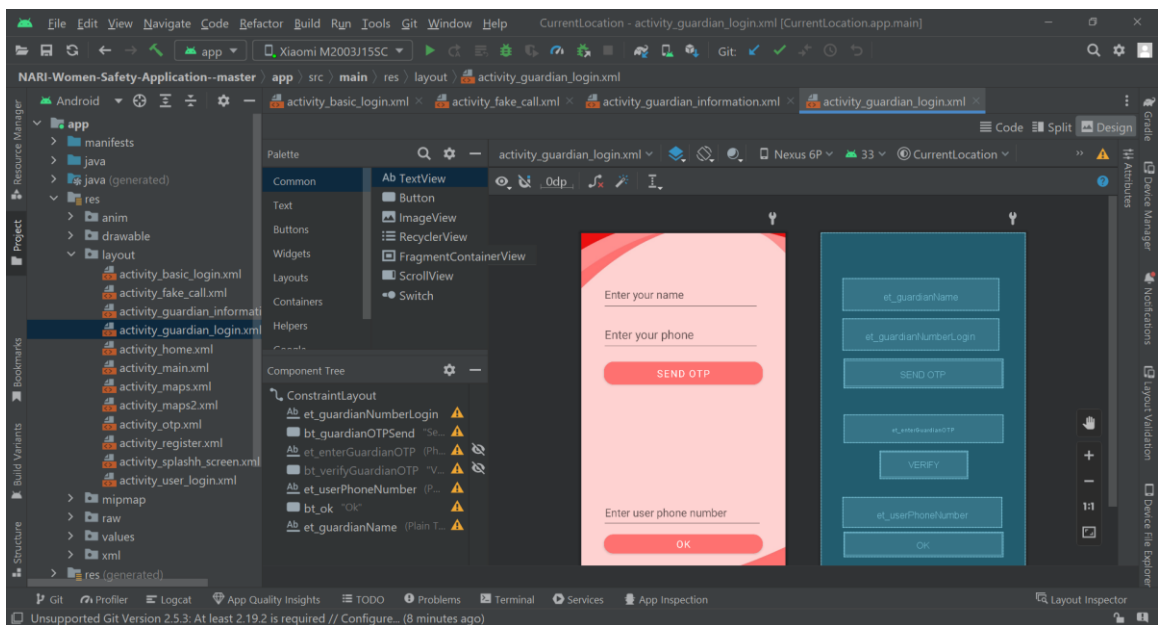
- activity_fake_call



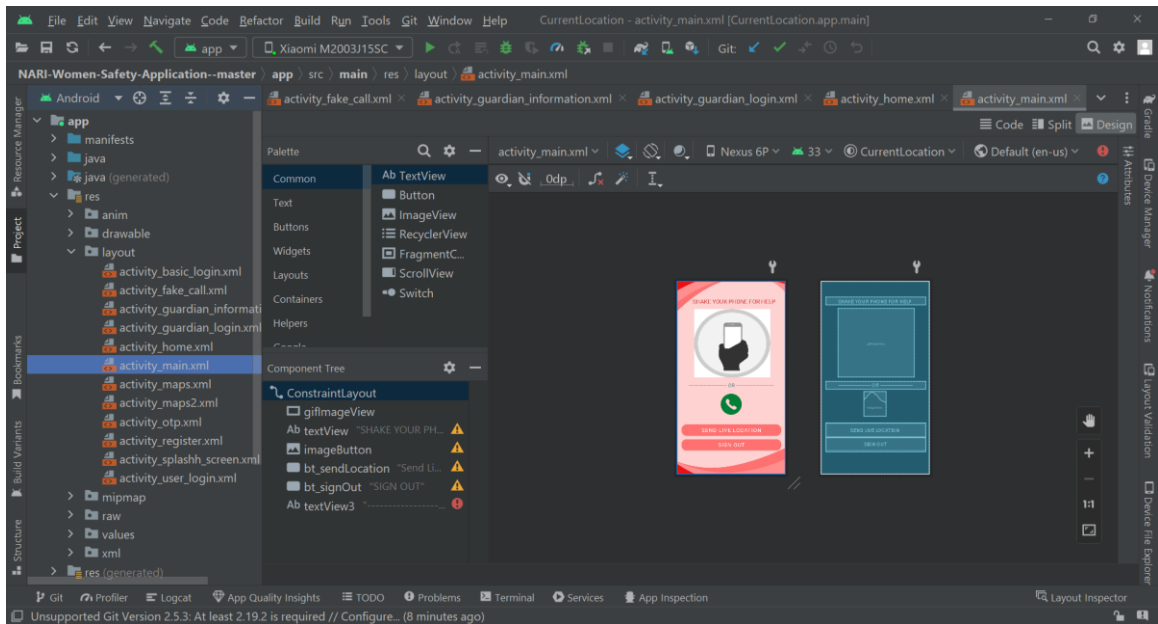
- activity_guardian_information



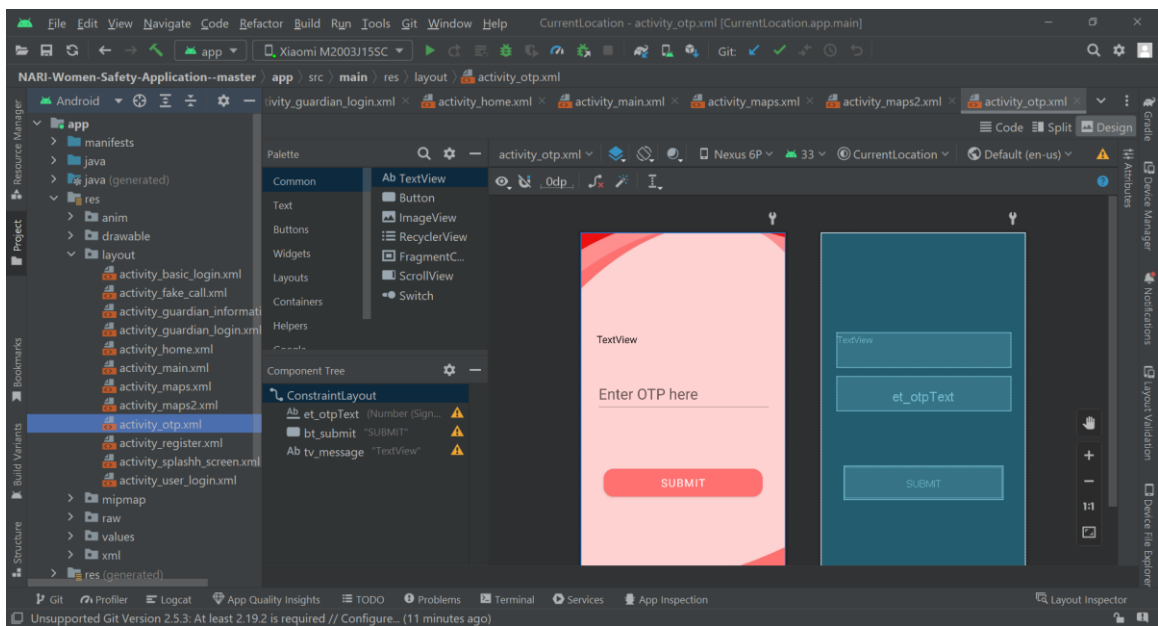
- activity_guardian_login



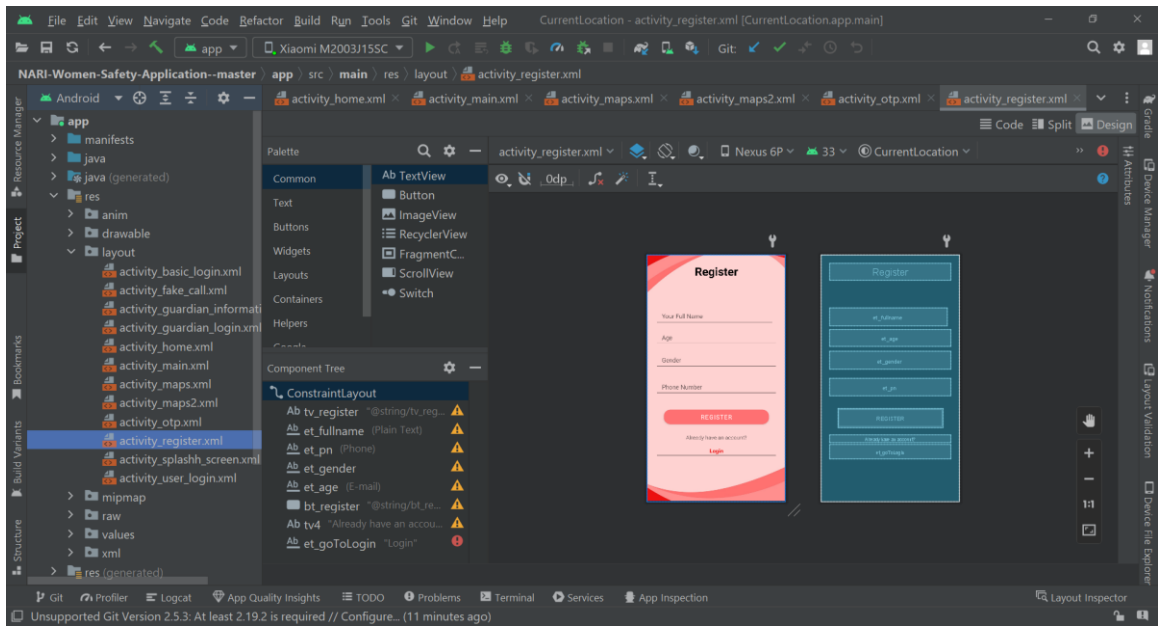
- activity_main



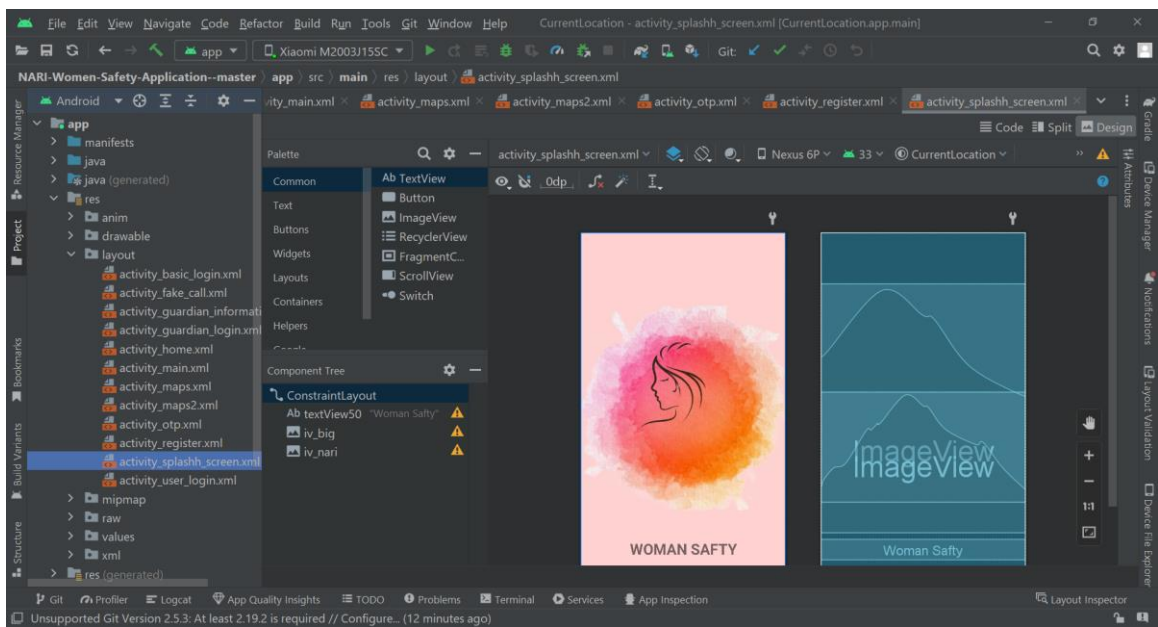
- activity_otp



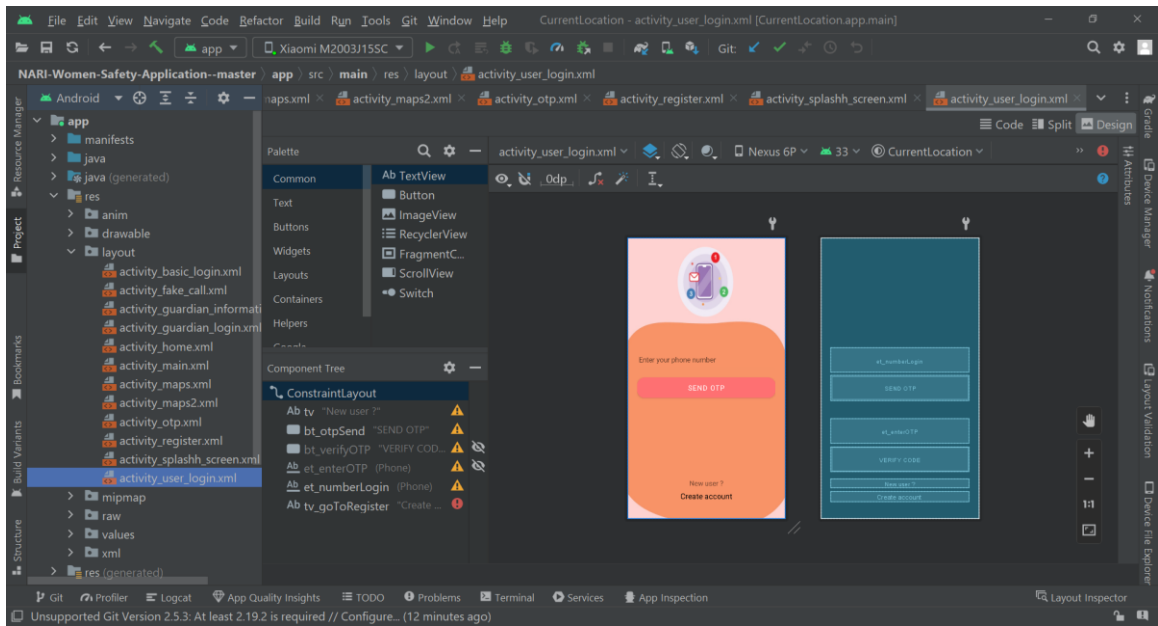
- activity_register



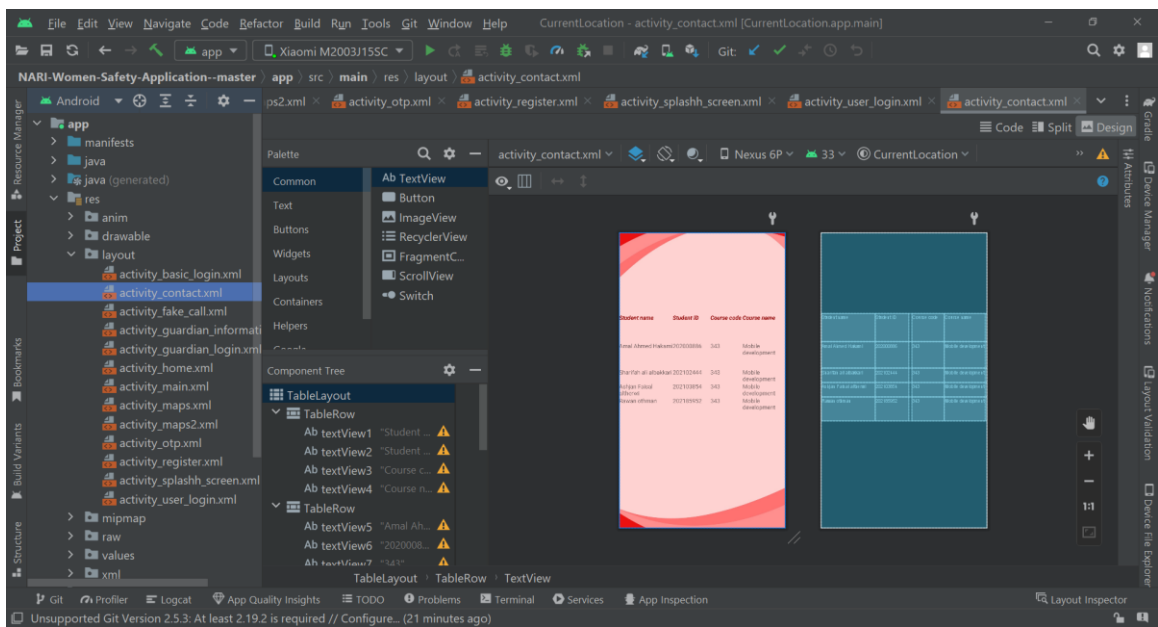
- activity_splashh_screen



- activity_user_login



- activity_contact



XML Codes:

- activity_basic_login

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@drawable/basic_login_bg"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/bt_contact"
        android:layout_width="299dp"
        android:layout_height="65dp"
        android:backgroundTint="#80ED6E93"
        android:backgroundTintMode="src_in"
        android:fontFamily="sans-serif"
        android:text="Contact"
        android:textColorLink="#fff"
        android:textSize="20sp"
        app:cornerRadius="20dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.975"
        app:strokeColor="#000" />

    <Button
        android:id="@+id/bt_guardianLogin"
        android:layout_width="299dp"
        android:layout_height="65dp"
        android:backgroundTint="#EE6E94"
        android:fontFamily="sans-serif"
        android:text="GUARDIAN LOGIN"
        android:textSize="20sp"
        app:cornerRadius="20dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.845" />

    <Button
        android:id="@+id/bt_userLogin"
        android:layout_width="300dp"
        android:layout_height="65dp"
        android:layout_marginBottom="20dp"
        android:backgroundTint="#EF6E95"
        android:fontFamily="sans-serif"
        android:text="USER LOGIN"
        android:textSize="20sp"
        app:cornerRadius="20dp"
        app:layout_constraintBottom_toTopOf="@+id/bt_guardianLogin"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.504"

```

```
        app:layout_constraintStart_toStartOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

- activity_fake_call

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".FakeCallActivity">

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:srcCompat="@drawable/fake_call"
        tools:layout_editor_absoluteY="210dp" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

- activity_guardian_information

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@drawable/activity_guardian_login_bg"
    tools:context=".GuardianInformationActivity">

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="292dp"
```

```
android:fontFamily="sans-serif"
android:text="Add your guardian information"
android:textColor="@color/black"
android:textSize="20sp"
android:textStyle="normal"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
```

<EditText

```
android:id="@+id/et_name1"
android:layout_width="320dp"
android:layout_height="58dp"
android:layout_marginTop="360dp"
android:ems="10"
android:fontFamily="sans-serif"
android:hint="Enter guardian name"
android:inputType="textPersonName"
android:textColor="#090909"
android:textSize="24sp"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
```

<EditText

```
android:id="@+id/et_phone1"
android:layout_width="320dp"
android:layout_height="55dp"
android:layout_marginTop="456dp"
android:ems="10"
android:fontFamily="sans-serif"
android:hint="Enter guardian number"
android:inputType="phone"
android:textColor="#020202"
android:textSize="24sp"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
```

<Button

```
android:id="@+id/bt_done"
android:layout_width="280dp"
android:layout_height="69dp"
android:layout_marginBottom="156dp"
android:backgroundTint="#FE7170"
android:fontFamily="sans-serif"
android:text="Submit"
android:textSize="20sp"
app:cornerRadius="20dp"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:rippleColor="#fff" />
```

<TextView

```
android:id="@+id/textView"
```

```

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="112dp"
        android:fontFamily="sans-serif"
        android:text="Guardian Information"
        android:textAllCaps="true"
        android:textColor="@color/black"
        android:textSize="27sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.611"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

- activity_guardian_login

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@drawable/activity_guardian_login_bg"
    tools:context=".GuardianLoginActivity">

    <EditText
        android:id="@+id/et_guardianNumberLogin"
        android:layout_width="314dp"
        android:layout_height="63dp"
        android:layout_marginTop="17dp"
        android:ems="10"
        android:fontFamily="sans-serif"
        android:hint="Enter your phone"
        android:inputType="phone"
        android:textColor="#070707"
        android:textSize="24sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.443"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/et_guardianName" />

    <Button
        android:id="@+id/bt_guardianOTPSend"
        android:layout_width="320dp"
        android:layout_height="58dp"
        android:layout_marginTop="17dp"
        android:backgroundTint="#FE7170"
        android:fontFamily="sans-serif"
        android:text="Send OTP"
        android:textSize="20sp"
        android:typeface="sans"

```

```
app:cornerRadius="20dp"  
app:layout_constraintEnd_toEndOf="parent"  
app:layout_constraintStart_toStartOf="parent"  
app:layout_constraintTop_toBottomOf="@+id/et_guardianNumberLogin" />
```

<EditText

```
android:id="@+id/et_enterGuardianOTP"  
android:layout_width="320dp"  
android:layout_height="56dp"  
android:layout_marginTop="54dp"  
android:background="@drawable/activity_guardian_login_bg"  
android:ems="10"  
android:fontFamily="sans-serif"  
android:inputType="phone"  
android:visibility="invisible"  
app:layout_constraintEnd_toEndOf="parent"  
app:layout_constraintStart_toStartOf="parent"  
app:layout_constraintTop_toBottomOf="@+id/bt_guardianOTPSend" />
```

<Button

```
android:id="@+id/bt_verifyGuardianOTP"  
android:layout_width="177dp"  
android:layout_height="55dp"  
android:layout_marginTop="16dp"  
android:text="Verify"  
android:textSize="20sp"  
android:visibility="invisible"  
app:layout_constraintEnd_toEndOf="parent"  
app:layout_constraintStart_toStartOf="parent"  
app:layout_constraintTop_toBottomOf="@+id/et_enterGuardianOTP" />
```

<EditText

```
android:id="@+id/et_userPhoneNumber"  
android:layout_width="320dp"  
android:layout_height="60dp"  
android:layout_marginTop="532dp"  
android:ems="10"  
android:hint="Enter user phone number"  
android:inputType="phone"  
android:textColor="#050505"  
android:textSize="22sp"  
app:layout_constraintEnd_toEndOf="parent"  
app:layout_constraintHorizontal_bias="0.476"  
app:layout_constraintStart_toStartOf="parent"  
app:layout_constraintTop_toTopOf="parent"  
tools:ignore="SpeakableTextPresentCheck" />
```

<Button

```
android:id="@+id/bt_ok"  
android:layout_width="320dp"  
android:layout_height="50dp"  
android:layout_marginTop="8dp"  
android:backgroundTint="#FE7170"  
android:fontFamily="sans-serif"  
android:text="Ok"  
android:textSize="20sp"
```

```

        android:typeface="sans"
        app:cornerRadius="20dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/et_userPhoneNumber"
        app:layout_constraintVertical_bias="0.0" />

<EditText
    android:id="@+id/et_guardianName"
    android:layout_width="314dp"
    android:layout_height="63dp"
    android:layout_marginTop="92dp"
    android:ems="10"
    android:fontFamily="sans-serif"
    android:hint="Enter your name"
    android:inputType="textPersonName"
    android:textSize="22sp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.443"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

- activity_main

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@drawable/activity_guardian_login_bg"
    android:padding="16dp">

    <pl.droidsonroids.gif.GifImageView
        android:id="@+id/gifImageView"
        android:layout_width="290dp"
        android:layout_height="260dp"
        android:layout_marginTop="88dp"
        android:background="#fff"
        android:scaleType="fitXY"
        android:src="@drawable/gif"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.529"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/textView"

```



```
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginTop="44dp"
android:fontFamily="sans-serif"
android:paddingLeft="20dp"
android:text="SHAKE YOUR PHONE FOR HELP"
android:textAlignment="center"
android:textColor="#D83535"
android:textSize="22sp"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.831"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
```

<ImageView

```
android:id="@+id/imageButton"
android:layout_width="83dp"
android:layout_height="94dp"
android:layout_marginTop="400dp"
android:clickable="true"
android:scaleType="centerCrop"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:srcCompat="@drawable/fc"
tools:ignore="SpeakableTextPresentCheck" />
```

<Button

```
android:id="@+id/bt_sendLocation"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginTop="520dp"
android:backgroundTint="#FE7170"
android:fontFamily="sans-serif"
android:paddingTop="8dp"
android:paddingBottom="8dp"
android:text="Send Live Location"
android:textAlignment="center"
android:textSize="20dp"
app:cornerRadius="20dp"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
```

<Button

```
android:id="@+id/bt_signOut"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginTop="576dp"
android:backgroundTint="#FE7170"
android:fontFamily="sans-serif"
android:paddingTop="8dp"
android:paddingBottom="8dp"
android:text="SIGN OUT"
android:textAlignment="center"
android:textSize="20dp"
```

```

        app:cornerRadius="20dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

<TextView
    android:id="@+id/textView3"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:fontFamily="sans-serif"
    android:text="----- OR -----"
    android:textAlignment="center"
    android:textColor="#959494"
    android:textSize="20sp"
    android:textStyle="bold"
    tools:layout_editor_absoluteX="16dp"
    tools:layout_editor_absoluteY="364dp" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

- activity_otp

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@drawable/activity_guardian_login_bg"
    tools:context=".OTPActivity">

    <EditText
        android:id="@+id/et_otpText"
        android:layout_width="350dp"
        android:layout_height="70dp"
        android:layout_marginTop="288dp"
        android:ems="10"
        android:fontFamily="sans-serif"
        android:hint="Enter OTP here"
        android:inputType="numberSigned"
        android:textColor="#050505"
        android:textSize="30sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.508"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <Button
        android:id="@+id/bt_submit"
        android:layout_width="320dp"
        android:layout_height="68dp"
        android:layout_marginTop="468dp"

```

```

        android:backgroundTint="#FE7170"
        android:fontFamily="sans-serif"
        android:text="SUBMIT"
        android:textSize="22sp"
        app:cornerRadius="20dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.494"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

<TextView
    android:id="@+id/tv_message"
    android:layout_width="350dp"
    android:layout_height="70dp"
    android:layout_marginTop="200dp"
    android:fontFamily="sans-serif"
    android:text="TextView"
    android:textColor="#090808"
    android:textSize="20sp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.508"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

- activity_register

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@drawable/activity_guardian_login_bg"
    android:padding="25dp">

    <TextView
        android:id="@+id/tv_register"
        android:layout_width="match_parent"
        android:layout_height="50dp"
        android:fontFamily="sans-serif"
        android:text="@string/tv_register"
        android:textAlignment="center"
        android:textColor="@color/black"
        android:textSize="34sp"
        android:textStyle="bold"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.2"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText

```

```
android:id="@+id/et_fullname"
android:layout_width="match_parent"
android:layout_height="54dp"
android:layout_marginTop="80dp"
android:layout_marginEnd="10dp"
android:ems="10"
android:fontFamily="sans-serif"
android:hint="@string/et_fullname_hint"
android:inputType="textPersonName"
android:paddingStart="18dp"
android:textColor="@color/black"
android:textSize="18sp"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.833"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/tv_register" />
```

<EditText

```
android:id="@+id/et_pn"
android:layout_width="match_parent"
android:layout_height="51dp"
android:layout_marginTop="28dp"
android:ems="10"
android:fontFamily="sans-serif"
android:hint="@string/et_confirmPassword_hint"
android:inputType="phone"
android:paddingStart="18dp"
android:textColor="@color/black"
android:textSize="18sp"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.763"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/et_gender" />
```

<EditText

```
android:id="@+id/et_gender"
android:layout_width="match_parent"
android:layout_height="53dp"
android:layout_marginTop="16dp"
android:ems="10"
android:fontFamily="sans-serif"
android:hint="@string/et_passwordRegister_hint"
android:inputType="text"
android:paddingStart="18dp"
android:textColor="@color/black"
android:textSize="18sp"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.805"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/et_age" />
```

<EditText

```
android:id="@+id/et_age"
android:layout_width="match_parent"
android:layout_height="49dp"
android:layout_marginTop="12dp"
```

```
android:ems="10"
android:fontFamily="sans-serif"
android:hint="@string/et_emailRegister_hint"
android:inputType="textEmailAddress"
android:paddingStart="18dp"
android:textColor="@color/black"
android:textSize="18sp"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.783"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/et_fullname" />
```

<Button

```
android:id="@+id/bt_register"
android:layout_width="match_parent"
android:layout_height="55dp"
android:layout_marginStart="24dp"
android:layout_marginTop="36dp"
android:layout_marginEnd="24dp"
android:backgroundTint="#FE7072"
android:fontFamily="sans-serif"
android:text="@string/bt_register"
android:textSize="18sp"
app:cornerRadius="20dp"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/et_pn" />
```

<TextView

```
android:id="@+id/tv4"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginBottom="8dp"
android:fontFamily="sans-serif"
android:text="Already have an account?"
android:textAlignment="center"
android:textSize="16sp"
app:layout_constraintBottom_toTopOf="@+id/et_goToLogin"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent" />
```

<EditText

```
android:id="@+id/et_goToLogin"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:clickable="true"
android:ems="10"
android:fontFamily="sans-serif"
android:gravity="center_horizontal"
android:inputType="textPersonName"
android:text="Login"
android:textColor="#EB1010"
android:textSize="16sp"
android:textStyle="bold"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
```

```

        app:layout_constraintHorizontal_bias="1.0"
        app:layout_constraintStart_toStartOf="@+id/tv4"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.841" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

- activity_splashh_screen

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#ffd2d2"
    tools:context=".SplashhScreenActivity">

    <TextView
        android:id="@+id/textView50"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="13dp"
        android:fontFamily="sans-serif"
        android:text="Woman Safty"
        android:textAlignment="center"
        android:textAllCaps="true"
        android:textSize="30dp"
        android:textStyle="bold"
        app:layout_constraintTop_toBottomOf="@+id/iv_big"
        tools:layout_editor_absoluteX="0dp" />

    <ImageView
        android:id="@+id/iv_big"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="102dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="1.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:srcCompat="@drawable/woman1" />

    <ImageView
        android:id="@+id/iv_nari"
        android:layout_width="match_parent"
        android:layout_height="220dp"
        android:layout_marginTop="320dp"
        android:scaleType="fitXY"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```

- activity_user_login

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@drawable/activity_user_login_bg"
    android:backgroundTintMode="screen"
    android:padding="25dp">

    <TextView
        android:id="@+id/tv"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginBottom="8dp"
        android:fontFamily="sans-serif"
        android:text="New user ?"
        android:textAlignment="center"
        android:textSize="18sp"
        app:layout_constraintBottom_toTopOf="@+id/tv_goToRegister"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.32"
        app:layout_constraintStart_toStartOf="parent" />

    <Button
        android:id="@+id/bt_otpSend"
        android:layout_width="match_parent"
        android:layout_height="65dp"
        android:layout_marginTop="8dp"
        android:backgroundTint="#FE7072"
        android:fontFamily="sans-serif"
        android:text="SEND OTP"
        android:textAlignment="center"
        android:textSize="18sp"
        app:cornerRadius="20dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.475"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/et_numberLogin" />

    <Button
        android:id="@+id/bt_verifyOTP"
        android:layout_width="match_parent"
        android:layout_height="65dp"
        android:layout_marginTop="8dp"
        android:backgroundTint="#FE7072"
        android:fontFamily="sans-serif"
        android:text="VERIFY CODE"
```

```
android:textAlignment="center"
android:textSize="18sp"
android:visibility="invisible"
app:cornerRadius="20dp"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/et_enterOTP" />
```

<EditText

```
android:id="@+id/et_enterOTP"
android:layout_width="match_parent"
android:layout_height="65dp"
android:layout_marginTop="48dp"
android:layout_marginBottom="8dp"
android:ems="10"
android:hint="Enter OTP"
android:inputType="phone"
android:textColor="#050505"
android:textSize="18sp"
android:visibility="invisible"
app:layout_constraintBottom_toTopOf="@+id/bt_verifyOTP"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.492"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/bt_otpSend"
app:layout_constraintVertical_bias="1.0" />
```

<EditText

```
android:id="@+id/et_numberLogin"
android:layout_width="match_parent"
android:layout_height="65dp"
android:layout_marginTop="260dp"
android:ems="10"
android:hint="Enter your phone number"
android:inputType="phone"
android:textColor="#0B0A0A"
android:textSize="18sp"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.497"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
```

<TextView

```
android:id="@+id/tv_goToRegister"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginBottom="20dp"
android:clickable="true"
android:fontFamily="sans-serif"
android:text="Create account"
android:textAlignment="center"
android:textColor="@color/black"
android:textSize="20sp"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent" />
```



```
</androidx.constraintlayout.widget.ConstraintLayout>
```

- activity_contact

```
<?xml version="1.0" encoding="utf-8"?>
<TableLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"

    android:background="@drawable/activity_guardian_login_bg"
    android:baselineAligned="true"
    android:scrollbars="horizontal|vertical">
```

```
<TableRow
```

```
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="200dp">
```

```
<TextView
```

```
    android:id="@+id/textView1"
    android:layout_width="133dp"
    android:layout_height="match_parent"
    android:height="70dp"
    android:text="Student name"
    android:textColor="#910505"
    android:textSize="14sp"
    android:textStyle="bold|italic" />
```

```
<TextView
```

```
    android:id="@+id/textView2"
```

```
    android:layout_width="83dp"
```

```
    android:layout_height="match_parent"
    android:height="70dp"
    android:text="Student ID"
    android:textColor="#910505"
    android:textSize="14sp"
    android:textStyle="bold|italic" />
```

```
<TextView
```

```
    android:id="@+id/textView3"
```

```
    android:layout_width="80dp"
```

```
    android:layout_height="match_parent"
    android:layout_marginStart="10dp"
```

```
android:layout_marginLeft="10dp"
android:height="70dp"
android:text="Course code"
android:textColor="#910505"
android:textSize="14sp"
android:textStyle="bold|italic" />
```

<TextView

```
android:id="@+id/textView4"
```

```
android:layout_width="100dp"
```

```
android:layout_height="match_parent"
android:height="70dp"
android:text="Course name"
android:textColor="#910505"
android:textSize="14sp"
android:textStyle="bold|italic" />
```

</TableRow>

<TableRow

```
android:layout_width="match_parent"
android:layout_height="match_parent">
```

<TextView

```
android:id="@+id/textView5"
```

```
android:layout_width="133dp"
android:layout_height="match_parent"
```

```
android:height="65dp"
android:text="Amal Ahmed Hakami"
android:textSize="14sp" />
```

<TextView

```
android:id="@+id/textView6"
```

```
android:layout_width="83dp"
android:layout_height="match_parent"
```

```
android:height="65dp"
android:text="202000886"
android:textSize="14sp" />
```

<TextView

```
android:id="@+id/textView7"
```

```
android:layout_width="80dp"
android:layout_height="match_parent"
```

```
android:layout_marginStart="10dp"
```

```
        android:layout_marginLeft="10dp"  
        android:height="65dp"  
        android:text="343"  
        android:textSize="14sp" />
```

```
<TextView  
    android:id="@+id/textView8"
```

```
    android:layout_width="100dp"
```

```
    android:layout_height="match_parent"  
    android:text="Mobile development"  
    android:textSize="14sp" />
```

```
</TableRow>
```

```
<TableRow
```

```
    android:layout_width="match_parent"  
    android:layout_height="match_parent">
```

```
<TextView  
    android:id="@+id/textView9"
```

```
    android:layout_width="133dp"  
    android:layout_height="match_parent"  
    android:text="Sharifah ali albakkari"  
    android:textSize="14sp" />
```

```
<TextView  
    android:id="@+id/textView10"
```

```
    android:layout_width="83dp"  
    android:layout_height="match_parent"  
    android:text="202102444"  
    android:textSize="14sp" />
```

```
<TextView  
    android:id="@+id/textView11"
```

```
    android:layout_width="80dp"  
    android:layout_height="match_parent"  
    android:layout_marginStart="10dp"  
    android:layout_marginLeft="10dp"  
    android:text="343"  
    android:textSize="14sp" />
```

```
<TextView  
    android:id="@+id/textView12"
```

```
    android:layout_width="100dp"
```

```

        android:layout_height="match_parent"
        android:text="Mobile development"
        android:textSize="14sp" />
</TableRow>

<TableRow

    android:layout_width="match_parent"
    android:layout_height="65dp">

    <TextView
        android:id="@+id/textView13"

        android:layout_width="133dp"
        android:layout_height="match_parent"
        android:text="Ashjan Faisal altherwi"
        android:textSize="14sp" />

    <TextView
        android:id="@+id/textView14"

        android:layout_width="83dp"
        android:layout_height="match_parent"
        android:text="202103854"
        android:textSize="14sp" />

    <TextView
        android:id="@+id/textView15"

        android:layout_width="80dp"
        android:layout_height="match_parent"
        android:layout_marginStart="10dp"
        android:layout_marginLeft="10dp"
        android:text="343"
        android:textSize="14sp" />

    <TextView
        android:id="@+id/textView16"

        android:layout_width="100dp"
        android:layout_height="match_parent"
        android:text="Mobile development"
        android:textSize="14sp" />
</TableRow>

<TableRow

    android:layout_width="match_parent"
    android:layout_height="match_parent">

```

```

<TextView
    android:id="@+id/textView17"

    android:layout_width="133dp"
    android:layout_height="match_parent"

    android:height="60dp"
    android:text="Rawan othman"
    android:textSize="14sp" />

<TextView
    android:id="@+id/textView18"

    android:layout_width="83dp"
    android:layout_height="match_parent"

    android:height="60dp"
    android:text="202185952"
    android:textSize="14sp" />

<TextView
    android:id="@+id/textView19"
    android:layout_width="80dp"
    android:layout_height="match_parent"

    android:layout_marginStart="10dp"
    android:layout_marginLeft="10dp"
    android:height="60dp"
    android:text="343"
    android:textSize="14sp" />

<TextView
    android:id="@+id/textView20"

    android:layout_width="100dp"
    android:layout_height="match_parent"

    android:height="60dp"
    android:text="Mobile development"
    android:textSize="14sp" />
</TableRow>

</TableLayout>

```

Java Codes:

- BasicLoginActivity

- `package com.company.currentlocation;`

```

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

public class BasicLoginActivity extends AppCompatActivity {
    Button bt_userLogin, bt_guardianLogin , bt_contact;

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

        bt_userLogin = findViewById(R.id.bt_userLogin);
        bt_contact = findViewById(R.id.bt_contact);
        bt_guardianLogin = findViewById(R.id.bt_guardianLogin);

        bt_userLogin.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

                Intent i = new Intent(BasicLoginActivity.this, UserLoginActivity.class);
                startActivity(i);

            }
        });

        bt_guardianLogin.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

                Intent i = new Intent(BasicLoginActivity.this, GuardianLoginActivity.class);
                startActivity(i);

            }
        });

        bt_contact.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

                Intent i = new Intent(BasicLoginActivity.this, ContactActivity.class);
                startActivity(i);

            }
        });
    }
}

```

- FakeCallActivity

```
package com.company.currentlocation;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Context;
import android.media.AudioManager;
import android.media.MediaPlayer;
import android.os.Bundle;
import android.view.View;
import android.widget.ImageView;

public class FakeCallActivity extends AppCompatActivity {

    MediaPlayer mediaPlayer;
    ImageView fake_call;
    // AudioManager audio;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_fake_call);
        if(getSupportActionBar() != null){
            getSupportActionBar().hide();
        }

        mediaPlayer = MediaPlayer.create(FakeCallActivity.this, R.raw.ringtone);

        mediaPlayer.start();

        mediaPlayer.setOnCompletionListener(new MediaPlayer.OnCompletionListener() {
            @Override
            public void onCompletion(MediaPlayer mp) {
                mediaPlayer.stop();
            }
        });

        fake_call=findViewById(R.id.imageView);

        fake_call.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                mediaPlayer.stop();
                fake_call.setImageResource(R.color.black);
                // audio = (AudioManager) getSystemService(Context.AUDIO_SERVICE);
                // audio.setRingerMode(0);
            }
        });
    }

    @Override
```

```
protected void onPause() {  
  
    super.onPause();  
    mediaPlayer.stop();  
    //    audio.setRingerMode(1);  
  
}  
}
```

- GuardianInfo

```
package com.company.currentlocation;  
  
public class GuardianInfo {  
  
    private String guardianName1;  
    private String guardianPhone1;  
  
    public GuardianInfo(){}  
  
    public GuardianInfo(String guardianName1, String guardianPhone1) {  
        this.guardianName1 = guardianName1;  
        this.guardianPhone1 = guardianPhone1;  
    }  
  
    public String getGuardianName1() {  
        return guardianName1;  
    }  
  
    public void setGuardianName1(String guardianName1) {  
        this.guardianName1 = guardianName1;  
    }  
  
    public String getGuardianPhone1() {  
        return guardianPhone1;  
    }  
  
    public void setGuardianPhone1(String guardianPhone1) {  
        this.guardianPhone1 = guardianPhone1;  
    }  
  
}
```


- GuardianInformationActivity

```
package com.company.currentlocation;

import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;

public class GuardianInformationActivity extends AppCompatActivity {

    EditText et_name1, et_phone1; //et_name2, et_phone2;
    Button bt_done;

    FirebaseDatabase firebaseDatabase;
    DatabaseReference databaseReference;

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

        firebaseDatabase = FirebaseDatabase.getInstance();

        et_name1 = findViewById(R.id.et_name1);
        et_phone1 = findViewById(R.id.et_phone1);

        bt_done = findViewById(R.id.bt_done);

        Intent intent = getIntent();
        String userNumber = intent.getStringExtra("userNumber");
        // Log.d("User Number GuardianInformation Activity", userNumber);

        databaseReference =
        firebaseDatabase.getReference().child("Users").child(userNumber).child("GuardianInfo");
```

```

        bt_done.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

                GuardianInfo guardianInfo = new
GuardianInfo(et_name1.getText().toString(),et_phone1.getText().toString());
                databaseReference.setValue(guardianInfo);
                Intent in = new Intent(GuardianInformationActivity.this, MainActivity.class);
                in.putExtra("userNumber", userNumber);
                startActivity(in);

            }
        });
    }
}

```

- GuardianLoginActivity

```

package com.company.currentlocation;

import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.FirebaseException;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.PhoneAuthCredential;
import com.google.firebase.auth.PhoneAuthOptions;
import com.google.firebase.auth.PhoneAuthProvider;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;

import java.util.concurrent.TimeUnit;

public class GuardianLoginActivity extends AppCompatActivity {

    FirebaseDatabase firebaseDatabase = FirebaseDatabase.getInstance();

```

```

DatabaseReference databaseReference;

EditText et_guardianNumberLogin, et_userPhoneNumber, et_enterGuardianOTP, et_guardianName;
Button bt_guardianOTPSend, bt_verifyGuardianOTP, bt_ok;

String userLoginNumber;

FirebaseAuth mAuth = FirebaseAuth.getInstance();

private String verificationId;

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

    et_guardianNumberLogin = findViewById(R.id.et_guardianNumberLogin);
    et_guardianName = findViewById(R.id.et_guardianName);
    et_userPhoneNumber = findViewById(R.id.et_userPhoneNumber);
    et_enterGuardianOTP = findViewById(R.id.et_enterGuardianOTP);
    bt_guardianOTPSend = findViewById(R.id.bt_guardianOTPSend);
    bt_verifyGuardianOTP = findViewById(R.id.bt_verifyGuardianOTP);
    bt_ok = findViewById(R.id.bt_ok);

    databaseReference = firebaseDatabase.getReference();

    bt_guardianOTPSend.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {

            userLoginNumber = et_guardianNumberLogin.getText().toString();

            sendVerificationCode(userLoginNumber);
        }
    });

    bt_verifyGuardianOTP.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            try {
                verifyCode(et_enterGuardianOTP.getText().toString());
            } catch (Exception e) {
                {
                    Toast.makeText(GuardianLoginActivity.this, e.getMessage(), Toast.LENGTH_LONG).show();
                }
            }
        }
    });

    bt_ok.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {

            compare();
        }
    });
}

```

```

    }

    private void sendVerificationCode(String number) {

        PhoneAuthOptions options =
            PhoneAuthOptions.newBuilder(mAuth)
                .setPhoneNumber(number)
                .setTimeout(60L, TimeUnit.SECONDS)
                .setActivity(this)
                .setCallbacks(mCallBack)
                .build();
        PhoneAuthProvider.verifyPhoneNumber(options);

    }

    private PhoneAuthProvider.OnVerificationStateChangedCallbacks mCallBack =
        new PhoneAuthProvider.OnVerificationStateChangedCallbacks() {

            @Override
            public void onCodeSent(String s, PhoneAuthProvider.ForceResendingToken
forceResendingToken) {
                super.onCodeSent(s, forceResendingToken);

                verificationId = s;
                et_enterGuardianOTP.setVisibility(View.VISIBLE);
                bt_verifyGuardianOTP.setVisibility(View.VISIBLE);
            }

            @Override
            public void onVerificationCompleted(@NonNull PhoneAuthCredential phoneAuthCredential) {

                final String code = phoneAuthCredential.getSmsCode();

                if (code != null) {

                    et_enterGuardianOTP.setText(code);

                    verifyCode(code);
                }
            }

            @Override
            public void onVerificationFailed(@NonNull FirebaseException e) {

                Toast.makeText(GuardianLoginActivity.this, e.getMessage(), Toast.LENGTH_LONG).show();

            }
        };

    private void verifyCode(String code) {

```

```

    try {
        PhoneAuthCredential credential = PhoneAuthProvider.getCredential(verificationId, code);
        signInWithCredential(credential);
    }
    catch (Exception ex){
        Toast.makeText(GuardianLoginActivity.this, ex.getMessage(), Toast.LENGTH_LONG).show();
    }
}

private void signInWithCredential(PhoneAuthCredential credential) {

    mAuth.signInWithCredential(credential)
        .addOnCompleteListener(new OnCompleteListener<AuthResult>() {

            @Override
            public void onComplete(@NonNull Task<AuthResult> task) {
                if (task.isSuccessful()) {

                    Toast.makeText(GuardianLoginActivity.this, "OTP VERIFIED",
Toast.LENGTH_SHORT).show();
                    GuardianInfo guardianInfo = new
GuardianInfo(et_guardianName.getText().toString(),et_guardianNumberLogin.getText().toString());
                    databaseReference.child("Guardians").setValue(guardianInfo);
                    databaseReference.child("Guardians").child("user-
info").setValue(et_userPhoneNumber.getText().toString());

                }

                else {

                    Toast.makeText(GuardianLoginActivity.this, task.getException().getMessage(),
Toast.LENGTH_LONG).show();

                }
            }
        });
}

void compare(){

    databaseReference.child("Users").child(
et_userPhoneNumber.getText().toString()).child("GuardianInfo").child("guardianPhone1").addValueEvent
Listener(new ValueEventListener() {
        @Override
        public void onDataChange(@NonNull DataSnapshot snapshot) {
            String cGuardianNumber = snapshot.getValue().toString();
            if(cGuardianNumber.equals(userLoginNumber)){

                databaseReference.child("Guardians").child("user-
info").setValue(et_userPhoneNumber.getText().toString());
                Intent i = new Intent(GuardianLoginActivity.this, MapsActivity.class);
                i.putExtra("userNumber", et_userPhoneNumber.getText().toString());
                startActivity(i);
            }
        }
    });
}

```

```

    }
    else{
        Toast.makeText(GuardianLoginActivity.this, "Not Equal",Toast.LENGTH_SHORT).show();
    }
}

@Override
public void onCancelled(@NonNull DatabaseError error) {
    Toast.makeText(GuardianLoginActivity.this, "ERROR",Toast.LENGTH_SHORT).show();
}
});
}
}

```

- LocationInfo

```

package com.company.currentlocation;

public class LocationInfo {

    private String latitude;
    private String longitude;
    private String countryName;
    private String locality;
    private String addressLine;

    public LocationInfo(){}

    public LocationInfo(String latitude, String longitude, String countryName, String locality, String addressLine) {
        this.latitude = latitude;
        this.longitude = longitude;
        this.countryName = countryName;
        this.locality = locality;
        this.addressLine = addressLine;
    }

    public String getLatitude() {
        return latitude;
    }

    public void setLatitude(String latitude) {
        this.latitude = latitude;
    }

    public String getLongitude() {
        return longitude;
    }

    public void setLongitude(String longitude) {
        this.longitude = longitude;
    }
}

```

```

public String getCountryName() {
    return countryName;
}

public void setCountryName(String countryName) {
    this.countryName = countryName;
}

public String getLocality() {
    return locality;
}

public void setLocality(String locality) {
    this.locality = locality;
}

public String getAddressLine() {
    return addressLine;
}

public void setAddressLine(String addressLine) {
    this.addressLine = addressLine;
}
}

```

- MainActivity

```

package com.company.currentlocation;

import androidx.activity.result.ActivityResultLauncher;
import androidx.activity.result.contract.ActivityResultContracts;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;

import android.Manifest;
import android.content.Context;
import android.content.Intent;
import android.content.pm.PackageManager;
import android.hardware.Sensor;
import android.hardware.SensorEvent;
import android.hardware.SensorEventListener;
import android.hardware.SensorManager;
import android.location.Address;
import android.location.Geocoder;
import android.location.Location;
import android.location.LocationListener;
import android.location.LocationManager;
import android.os.Bundle;
import android.telephony.SmsManager;
import android.util.Log;
import android.view.KeyEvent;
import android.view.View;

```

```

import android.widget.Button;
import android.widget.ImageView;
import android.widget.TextView;
import android.widget.Toast;

import com.google.android.gms.location.FusedLocationProviderClient;
import com.google.android.gms.location.LocationServices;
import com.google.android.gms.maps.model.LatLng;
import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;

import java.io.IOException;
import java.text.SimpleDateFormat;
import java.util.Calendar;
import java.util.List;
import java.util.Locale;

public class MainActivity extends AppCompatActivity implements SensorEventListener,
LocationListener{

    FusedLocationProviderClient fusedLocationProviderClient;
    Button bt_sendLocation, bt_signOut;
    ImageView imageButton;
    String guardianNumber;

    FirebaseDatabase firebaseDatabase;
    DatabaseReference databaseReference;
    DatabaseReference newDatabaseReference;

    String formattedDate;

    private SensorManager sensorManager;
    private Sensor accelerometer;
    private boolean isaccelerometerSensorAvailable , ItisnotFirstTime = false,Messagesent= false;
    private float currentx , currenty, currentz , lastx, lasty, lastz;

    private float xdifference,ydifference,zdifference;
    private float shakethreshold = 25f;

    private float onkeypressed = 0;

    LocationManager manager;

    private final int MIN_TIME = 2000; // 1 sec

    private final int MIN_DISTANCE = 1; // 1 METER

```



```

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

        Intent i = getIntent();
        String userNumber = i.getStringExtra("userNumber");
        firebaseDatabase = FirebaseDatabase.getInstance();
        databaseReference =
firebaseDatabase.getReference().child("Users").child(userNumber).child("LocatinInfo");
        newDatabaseReference =
firebaseDatabase.getReference().child("Users").child(userNumber).child("GuardianInfo").child("guardianP
hone1");

        manager = (LocationManager) getSystemService(LOCATION_SERVICE);

        imageButton = findViewById(R.id.imageButton);

        Calendar c = Calendar.getInstance();
        System.out.println("Current dateTime => " + c.getTime());
        SimpleDateFormat df = new SimpleDateFormat("dd-MM-yyyy HH:mm:ss a");
        formattedDate = df.format(c.getTime());

        bt_sendLocation = findViewById(R.id.bt_sendLocation);
        bt_signOut = findViewById(R.id.bt_signOut);

        fusedLocationProviderClient = LocationServices.getFusedLocationProviderClient(this);

        sensorManager = (SensorManager) getSystemService(Context.SENSOR_SERVICE);
        if (sensorManager.getDefaultSensor(Sensor.TYPE_ACCELEROMETER) != null) {
            accelerometer = sensorManager.getDefaultSensor(Sensor.TYPE_ACCELEROMETER);
            isaccelerometerSensorAvailable=true;
        }
        else{
            Toast.makeText(this, "sensor not available", Toast.LENGTH_SHORT).show();
            isaccelerometerSensorAvailable=false;
        }

        imageButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

                Intent intent = new Intent(MainActivity.this, FakeCallActivity.class);
                startActivity(intent);

            }
        });

        bt_sendLocation.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

```

```

        Intent i = new Intent(MainActivity.this, MapsActivity2.class);
        i.putExtra("userNumber", userNumber);
        startActivity(i);
    }
});

bt_signOut.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        RegisterActivity.auth.signOut();
        finish();
        startActivity(new Intent(MainActivity.this, BasicLoginActivity.class));
    }
});

getLocationupdates();

} catch (Exception e)
{
    Toast.makeText(MainActivity.this, e.getMessage(), Toast.LENGTH_SHORT).show();
}
}

private void getLocation() {

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

        fusedLocationProviderClient.getLastLocation().addOnCompleteListener(new
    OnCompleteListener<Location>() {
            @Override
            public void onComplete(@NonNull Task<Location> task) {

                Location location = task.getResult();
                if (location != null) {

                    Geocoder geocoder = new Geocoder(MainActivity.this, Locale.getDefault());

                    try {

                        List<Address> addresses = geocoder.getFromLocation(location.getLatitude(),
    location.getLongitude(), 1);

                        LocationInfo locationInfo = new LocationInfo("'" + addresses.get(0).getLatitude(),
                            "'" + addresses.get(0).getLongitude(),
                            "'" + addresses.get(0).getCountryName(),
                            "'" + addresses.get(0).getLocality(),

```

```

        "" + addresses.get(0).getAddressLine(0));

        MyLocationSecond location2 = new MyLocationSecond(addresses.get(0).getLatitude(),
addresses.get(0).getLongitude());

        databaseReference.setValue(location2);

        Toast.makeText(MainActivity.this, "Location Sent", Toast.LENGTH_SHORT).show();

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

    }

    }

});

    } else {

        ActivityCompat.requestPermissions(this, new
String[]{Manifest.permission.ACCESS_FINE_LOCATION,
Manifest.permission.ACCESS_COARSE_LOCATION}, 44);
        Toast.makeText(this, "Get Location Permissions", Toast.LENGTH_SHORT).show();

    }

}

private void getlocationupdates() {

    if (manager != null){

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

            if (manager.isProviderEnabled(LocationManager.GPS_PROVIDER)) {
                manager.requestLocationUpdates(LocationManager.GPS_PROVIDER, MIN_TIME,
MIN_DISTANCE, this);
            } else if (manager.isProviderEnabled(LocationManager.NETWORK_PROVIDER)) {
                manager.requestLocationUpdates(LocationManager.NETWORK_PROVIDER, MIN_TIME,
MIN_DISTANCE, this);
            } else {
                Toast.makeText(this, "NO provider Enabled", Toast.LENGTH_SHORT).show();
            }

        }

    }

    else{
        ActivityCompat.requestPermissions(this,new
String[]{Manifest.permission.ACCESS_FINE_LOCATION},101);
    }
}

```

```

    }

    }

    }

    @Override
    public void onRequestPermissionsResult(int requestCode, @NonNull String[] permissions, @NonNull
int[] grantResults) {
        super.onRequestPermissionsResult(requestCode, permissions, grantResults);

        if (requestCode == 101){

            if (grantResults.length>0 && grantResults[0] == PackageManager.PERMISSION_GRANTED){
                getLocationUpdates();
            }
            else{
                Toast.makeText(this, "You need to get location permission", Toast.LENGTH_SHORT).show();
            }

        }

        if(requestCode == 45){

            if (grantResults.length>0 && grantResults[0] == PackageManager.PERMISSION_GRANTED){
                return;
            }
            else{

                ActivityCompat.requestPermissions(this, new String[]{Manifest.permission.SEND_SMS}, 45);
            }

        }
    }

    @Override
    protected void onStart() {
        super.onStart();
        if (ActivityCompat.checkSelfPermission(this, Manifest.permission.SEND_SMS) !=
PackageManager.PERMISSION_GRANTED){

            ActivityCompat.requestPermissions(this, new String[]{Manifest.permission.SEND_SMS}, 45);

        }

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

            ActivityCompat.requestPermissions(this, new
String[]{Manifest.permission.ACCESS_FINE_LOCATION,
Manifest.permission.ACCESS_COARSE_LOCATION}, 44);

        }
    }

```

```

    }

    @Override
    public void onSensorChanged(SensorEvent event) {
    try {

        currentx = event.values[0];
        currenty = event.values[1];
        currentz = event.values[2];

        if (ItisnotFirstTime){

            xdifference = Math.abs(currentx-lastx);
            ydifference = Math.abs(currenty-lasty);
            zdifference = Math.abs(currentz-lastz);

            if(xdifference > shakethreshold || ydifference>shakethreshold || zdifference>shakethreshold){
//                Toast.makeText(this, "The help signal has been sent!!", Toast.LENGTH_SHORT).show();
//                Messagesent = true;

                SmsManager sms = SmsManager.getDefault();
                if (ActivityCompat.checkSelfPermission(this, Manifest.permission.SEND_SMS) !=
PackageManager.PERMISSION_GRANTED){

                    ActivityCompat.requestPermissions(this, new String[]{Manifest.permission.SEND_SMS}, 45);

                }
                readChanges();
                String number = guardianNumber;
                sms.sendTextMessage(number,null,"help me, I'm in dangerous",null,null);
                Toast.makeText(MainActivity.this, "Message sent to your guardian",
Toast.LENGTH_SHORT).show();

            }

        }

        lastx = currentx;
        lasty=currenty;
        lastz=currentz;

        ItisnotFirstTime = true;

    } catch (Exception e)
    {
        Toast.makeText(MainActivity.this, newDatabaseReference.toString(), Toast.LENGTH_SHORT).show();
    }
}

@Override

```

```

public void onAccuracyChanged(Sensor sensor, int accuracy) {

}

@Override
protected void onResume() {
    super.onResume();
    sensorManager.registerListener(this, accelerometer, SensorManager.SENSOR_DELAY_NORMAL);
}

@Override
protected void onPause() {
    super.onPause();
    if (isAccelerometerSensorAvailable){
        sensorManager.unregisterListener(this);
    }
}

// volume click listener

@Override
public boolean onKeyDown(int keyCode, KeyEvent event) {

    if (keyCode == KeyEvent.KEYCODE_VOLUME_UP || keyCode ==
    KeyEvent.KEYCODE_VOLUME_DOWN) {

        onKeyPressed++;

        if (onKeyPressed == 3) {
            onKeyPressed = 0;
            Intent i = new Intent(MainActivity.this, FakeCallActivity.class);
            startActivity(i);
        }
    }
    return super.onKeyDown(keyCode, event);
}

@Override
public void onLocationChanged(@NonNull Location location) {
    if (location != null){
        saveLocation(location);
    }
    else{
        Toast.makeText(this, "No location", Toast.LENGTH_SHORT).show();
    }
}

private void saveLocation(Location location) {

    databaseReference.setValue(location);
    //Toast.makeText(this, "Live Location Sent", Toast.LENGTH_SHORT).show();
}

```

```

    }

    private String readChanges() {
        newDatabaseReference.addValueEventListener(new ValueEventListener() {
            @Override
            public void onDataChange(@NonNull DataSnapshot snapshot) {
                if (snapshot.exists()){
                    try {

                        guardianNumber = snapshot.getValue().toString();

                    } catch (Exception e){
                        Toast.makeText(MainActivity.this, "There is no guardian to this number",
                                Toast.LENGTH_SHORT).show();
                    }
                }
            }

            @Override
            public void onCancelled(@NonNull DatabaseError error) {

            }
        });

        return guardianNumber;
    }
}

```

- **MapsActivity**

```

package com.company.currentlocation;

import androidx.annotation.NonNull;
import androidx.core.app.ActivityCompat;
import androidx.fragment.app.FragmentActivity;

import android.Manifest;
import android.content.Intent;
import android.content.pm.PackageManager;
import android.location.LocationManager;
import android.os.Bundle;
import android.widget.Toast;

import com.google.android.gms.maps.CameraUpdateFactory;
import com.google.android.gms.maps.GoogleMap;
import com.google.android.gms.maps.OnMapReadyCallback;
import com.google.android.gms.maps.SupportMapFragment;
import com.google.android.gms.maps.model.LatLng;
import com.google.android.gms.maps.model.Marker;
import com.google.android.gms.maps.model.MarkerOptions;
import com.company.currentlocation.databinding.ActivityMapsBinding;

```

```

import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;

public class MapsActivity extends FragmentActivity implements OnMapReadyCallback {

    private GoogleMap mMap;
    private ActivityMapsBinding binding;
    FirebaseDatabase database = FirebaseDatabase.getInstance();
    DatabaseReference reference;

    Marker myMarker;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        binding = ActivityMapsBinding.inflate(getLayoutInflater());
        setContentView(binding.getRoot());

        Intent i = getIntent();
        String userNumber = i.getStringExtra("userNumber");

        reference = database.getReference().child("Users").child(userNumber).child("LocatinInfo");

        // Obtain the SupportMapFragment and get notified when the map is ready to be used.
        SupportMapFragment mapFragment = (SupportMapFragment) getSupportFragmentManager()
            .findFragmentById(R.id.map);
        mapFragment.getMapAsync(this);
        readChanges();
    }

    private void readChanges() {
        reference.addValueEventListener(new ValueEventListener() {
            @Override
            public void onDataChange(@NonNull DataSnapshot snapshot) {
                if (snapshot.exists()){
                    try {

                        MyLocationSecond location = snapshot.getValue(MyLocationSecond.class);

                        if (location != null) {
                            myMarker.setPosition(new LatLng(location.getLatitude(), location.getLongitude()));
                        }
                    } catch (Exception e){
                        Toast.makeText(MapsActivity.this, e.getMessage(), Toast.LENGTH_SHORT).show();
                    }
                }
            }
        })

        @Override
        public void onCancelled(@NonNull DatabaseError error) {

        }
    }
}

```



```

    });

}

@Override
public void onMapReady(GoogleMap googleMap) {
    mMap = googleMap;

    // Add a marker in Sydney and move the camera
    LatLng sydney = new LatLng(
        25.24104212, 75.90116502);
    myMarker= mMap.addMarker(new MarkerOptions().position(sydney).title("Marker"));

    mMap.getUiSettings().setZoomControlsEnabled(true);
    mMap.getUiSettings().setAllGesturesEnabled(true);

    mMap.moveCamera(CameraUpdateFactory.newLatLng(sydney));

}

@Override
public void onRequestPermissionsResult(int requestCode, @NonNull String[] permissions, @NonNull
int[] grantResults) {
    super.onRequestPermissionsResult(requestCode, permissions, grantResults);

    if (requestCode == 101){

        if (grantResults.length>0 && grantResults[0] == PackageManager.PERMISSION_GRANTED){
            return;
        }
        else{
            Toast.makeText(this, "You need to get location permission", Toast.LENGTH_SHORT).show();
        }

    }
}

@Override
protected void onStart() {
    super.onStart();
    ActivityCompat.requestPermissions(this,new
String[]{Manifest.permission.ACCESS_FINE_LOCATION},101);
}
}

```

- MapsActivity2

```

package com.company.currentlocation;

import androidx.annotation.NonNull;
import androidx.core.app.ActivityCompat;
import androidx.fragment.app.FragmentActivity;

```

```

import android.Manifest;
import android.content.Intent;
import android.content.pm.PackageManager;
import android.location.Location;
import android.location.LocationManager;
import android.os.Bundle;
import android.widget.Toast;
import android.location.LocationListener;

import com.google.android.gms.maps.CameraUpdateFactory;
import com.google.android.gms.maps.GoogleMap;
import com.google.android.gms.maps.OnMapReadyCallback;
import com.google.android.gms.maps.SupportMapFragment;
import com.google.android.gms.maps.model.LatLng;
import com.google.android.gms.maps.model.Marker;
import com.google.android.gms.maps.model.MarkerOptions;
import com.company.currentlocation.databinding.ActivityMaps2Binding;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;

public class MapsActivity2 extends FragmentActivity implements LocationListener,
OnMapReadyCallback{

    private GoogleMap mMap;
    private ActivityMaps2Binding binding;

    FirebaseDatabase firebaseDatabase = FirebaseDatabase.getInstance();
    DatabaseReference reference;

    LocationManager manager;

    private final int MIN_TIME = 2000; // 1 sec

    private final int MIN_DISTANCE = 1; // 1 METER

    Marker myMarker;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);

        binding = ActivityMaps2Binding.inflate(getLayoutInflater());
        setContentView(binding.getRoot());
        Intent i = getIntent();
        String userNumber = i.getStringExtra("userNumber");

        reference = firebaseDatabase.getReference().child("Users").child(userNumber).child("LocatinInfo");

        manager = (LocationManager) getSystemService(LOCATION_SERVICE);

        SupportMapFragment mapFragment = (SupportMapFragment) getSupportFragmentManager()

```

```

        .findFragmentById(R.id.map);

        mapFragment.getMapAsync(this);

        getLocationUpdates();

        readChanges();
    }

    private void readChanges() {
        reference.addValueEventListener(new ValueEventListener() {
            @Override
            public void onDataChange(@NonNull DataSnapshot snapshot) {
                if (snapshot.exists()){
                    try {

                        MyLocationSecond location = snapshot.getValue(MyLocationSecond.class);

                        if (location != null) {
                            myMarker.setPosition(new LatLng(location.getLatitude(),location.getLongitude()));
                        }
                    } catch (Exception e){
                        Toast.makeText(MapsActivity2.this, e.getMessage(), Toast.LENGTH_SHORT).show();
                    }
                }
            }

            @Override
            public void onCancelled(@NonNull DatabaseError error) {

            }
        });
    }

    private void getLocationUpdates() {

        if (manager != null){

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

                if (manager.isProviderEnabled(LocationManager.GPS_PROVIDER)) {
                    manager.requestLocationUpdates(LocationManager.GPS_PROVIDER, MIN_TIME,
            MIN_DISTANCE, this);
                } else if (manager.isProviderEnabled(LocationManager.NETWORK_PROVIDER)) {
                    manager.requestLocationUpdates(LocationManager.NETWORK_PROVIDER, MIN_TIME,
            MIN_DISTANCE, this);
                } else {
                    Toast.makeText(this, "NO provider Enabled", Toast.LENGTH_SHORT).show();
                }
            }

        }
    }

```

```

        else{
            ActivityCompat.requestPermissions(this,new
String[] {Manifest.permission.ACCESS_FINE_LOCATION},101);
        }

    }

}

@Override
public void onRequestPermissionsResult(int requestCode, @NonNull String[] permissions, @NonNull
int[] grantResults) {
    super.onRequestPermissionsResult(requestCode, permissions, grantResults);

    if (requestCode == 101){

        if (grantResults.length>0 && grantResults[0] == PackageManager.PERMISSION_GRANTED){
            getLocationUpdates();
        }
        else{
            Toast.makeText(this, "Permission Required", Toast.LENGTH_SHORT).show();
        }

    }

}

private void saveLocation(Location location) {

    reference.setValue(location);
    //Toast.makeText(this, "Live Location Sent", Toast.LENGTH_SHORT).show();

}

@Override
public void onLocationChanged(@NonNull Location location) {
    if (location != null){
        saveLocation(location);
    }
    else{
        Toast.makeText(this, "No location", Toast.LENGTH_SHORT).show();
    }
}

@Override
public void onMapReady(@NonNull GoogleMap googleMap) {
    mMap = googleMap;

    // Add a marker in Sydney and move the camera
    LatLng sydney = new LatLng(
        25.24104212, 75.90116502);
    myMarker= mMap.addMarker(new MarkerOptions().position(sydney).title("Marker"));

    mMap.getUiSettings().setZoomControlsEnabled(true);
    mMap.getUiSettings().setAllGesturesEnabled(true);
}

```

```
mMap.moveCamera(CameraUpdateFactory.newLatLng(sydney));  
}  
}
```

- MyLocation

```
package com.company.currentlocation;  
  
public class MyLocation {  
  
    private String latitude;  
    private String longitude;  
  
    public MyLocation(String latitude, String longitude) {  
        this.latitude = latitude;  
        this.longitude = longitude;  
    }  
  
    public MyLocation(){  
  
    }  
  
    public String getLatitude() {  
        return latitude;  
    }  
  
    public void setLatitude(String latitude) {  
        this.latitude = latitude;  
    }  
  
    public String getLongitude() {  
        return longitude;  
    }  
  
    public void setLongitude(String longitude) {  
        this.longitude = longitude;  
    }  
  
}
```

- MyLocationSecond

```
package com.company.currentlocation;  
  
public class MyLocationSecond {
```

```

private double latitude;
private double longitude;

public MyLocationSecond(double latitude, double longitude) {
    this.latitude = latitude;
    this.longitude = longitude;
}

public MyLocationSecond(){

}

public double getLatitude() {
    return latitude;
}

public void setLatitude(double latitude) {
    this.latitude = latitude;
}

public double getLongitude() {
    return longitude;
}

public void setLongitude(double longitude) {
    this.longitude = longitude;
}
}

```

- MySMSBroadcastReceiver

```

package com.company.currentlocation;

import android.content.BroadcastReceiver;
import android.content.Context;
import android.content.Intent;
import android.os.Bundle;

import com.google.android.gms.auth.api.phone.SmsRetriever;
import com.google.android.gms.common.api.CommonStatusCodes;
import com.google.android.gms.common.api.Status;

/**
 * BroadcastReceiver to wait for SMS messages. This can be registered either
 * in the AndroidManifest or at runtime. Should filter Intents on
 * SmsRetriever.SMS_RETRIEVED_ACTION.
 */
public class MySMSBroadcastReceiver extends BroadcastReceiver {

    @Override
    public void onReceive(Context context, Intent intent) {
        if (SmsRetriever.SMS_RETRIEVED_ACTION.equals(intent.getAction())) {

```

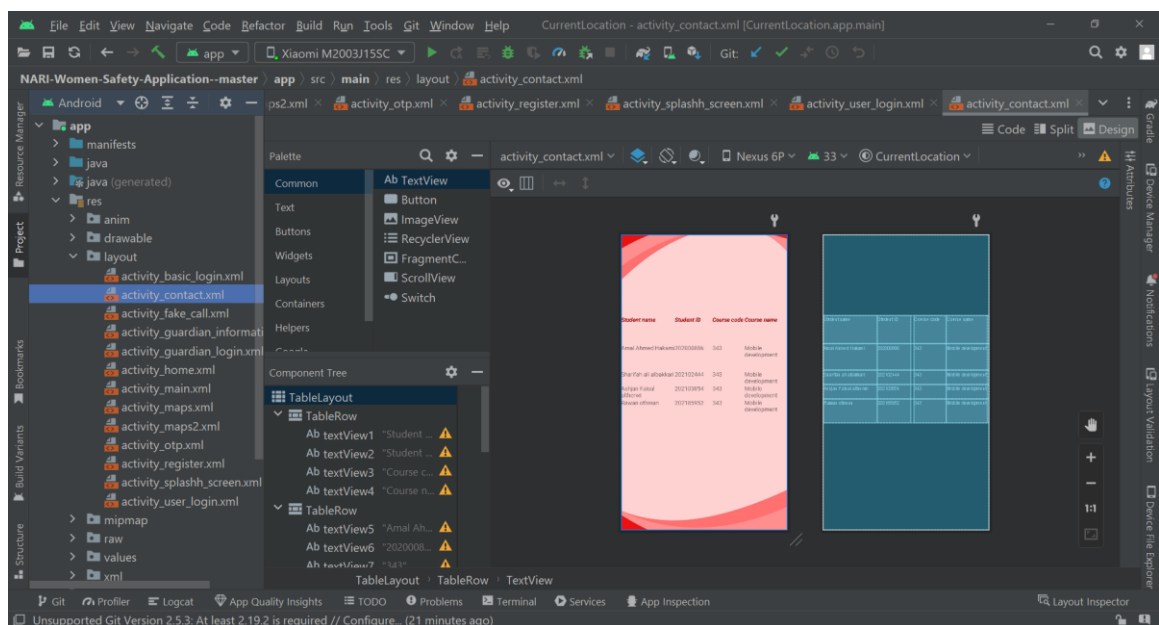
```

Bundle extras = intent.getExtras();
Status status = (Status) extras.get(SmsRetriever.EXTRA_STATUS);

switch(status.getStatusCode()) {
    case CommonStatusCodes.SUCCESS:
        // Get SMS message contents
        String message = (String) extras.get(SmsRetriever.EXTRA_SMS_MESSAGE);
        // Extract one-time code from the message and complete verification
        // by sending the code back to your server.
        break;
    case CommonStatusCodes.TIMEOUT:
        // Waiting for SMS timed out (5 minutes)
        // Handle the error ...
        break;
}
}
}
}

```

- MyLocation



```

package com.company.currentlocation;

import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.FirebaseException;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.PhoneAuthCredential;
import com.google.firebase.auth.PhoneAuthOptions;
import com.google.firebase.auth.PhoneAuthProvider;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;

import java.util.concurrent.TimeUnit;

public class OTPActivity extends AppCompatActivity {

    TextView tv_message;
    EditText et_otpText;

    FirebaseAuth mAuth = FirebaseAuth.getInstance();

    private String verificationId;

    Button bt_submit;

    FirebaseDatabase firebaseDatabase = FirebaseDatabase.getInstance();
    DatabaseReference databaseReference;

    String phone;
    String fullname;
    String age;
    String gender;

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

        Intent i = getIntent();

```



```

Bundle bundle = i.getExtras();

phone = bundle.getString("pn");
fullname = bundle.getString("fullname");
age = bundle.getString("age");
gender = bundle.getString("gender");

et_otpText = findViewById(R.id.et_otpText);

tv_message = findViewById(R.id.tv_message);
bt_submit = findViewById(R.id.bt_submit);

tv_message.setText("An otp has been sent to the mobile number: " + phone);
sendVerificationCode(phone);

bt_submit.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        verifyCode(et_otpText.getText().toString());
    }
});

}

private void sendVerificationCode(String number) {

    PhoneAuthOptions options =
        PhoneAuthOptions.newBuilder(mAuth)
            .setPhoneNumber(number)
            .setTimeout(60L, TimeUnit.SECONDS)
            .setActivity(this)
            .setCallbacks(mCallBack)
            .build();
    PhoneAuthProvider.verifyPhoneNumber(options);

}

private PhoneAuthProvider.OnVerificationStateChangedCallbacks mCallBack =
    new PhoneAuthProvider.OnVerificationStateChangedCallbacks() {

        @Override
        public void onCodeSent(String s, PhoneAuthProvider.ForceResendingToken
forceResendingToken) {
            super.onCodeSent(s, forceResendingToken);

            verificationId = s;
        }

        @Override

```

```

public void onVerificationCompleted(@NonNull PhoneAuthCredential phoneAuthCredential) {

    final String code = phoneAuthCredential.getSmsCode();

    if (code != null) {

        et_otpText.setText(code);

        verifyCode(code);
    }
}

@Override
public void onVerificationFailed(@NonNull FirebaseException e) {

    Toast.makeText(OTPActivity.this, e.getMessage(), Toast.LENGTH_LONG).show();

}

};

private void verifyCode(String code) {

    PhoneAuthCredential credential = PhoneAuthProvider.getCredential(verificationId, code);

    signInWithCredential(credential);

}

private void signInWithCredential(PhoneAuthCredential credential) {

    mAuth.signInWithCredential(credential)
        .addOnCompleteListener(new OnCompleteListener<AuthResult>() {

            @Override
            public void onComplete(@NonNull Task<AuthResult> task) {
                if (task.isSuccessful()) {

                    Toast.makeText(OTPActivity.this, "OTP VERIFIED",
Toast.LENGTH_SHORT).show();
                    RegisterActivity.auth = mAuth;

                    databaseReference =
firebaseDatabase.getReference().child("Users").child(phone);
                    UserData userData = new UserData(phone, fullname, age, gender);
                    databaseReference.setValue(userData);
                    Intent i = new Intent(OTPActivity.this, GuardianInformationActivity.class);
                    i.putExtra("userNumber", phone);
                    Log.d("User Number OTP Activity", phone);
                    startActivity(i);

                }
            }
        })
}

```

```

        else {
            Toast.makeText(OTPActivity.this, task.getException().getMessage(),
                Toast.LENGTH_LONG).show();
        }
    }
});
}
}

```

- RegisterActivity

```

package com.company.currentlocation;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.text.Editable;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;

import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.FirebaseUser;

public class RegisterActivity extends AppCompatActivity {

    private EditText et_fullname, et_gender, et_age, et_pn, et_goToLogin;
    private Button bt_register;

    public static FirebaseAuth auth = FirebaseAuth.getInstance();

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

```

```

et_fullname = findViewById(R.id.et_fullname);
et_gender = findViewById(R.id.et_gender);
et_age = findViewById(R.id.et_age);
et_pn = findViewById(R.id.et_pn);
et_goToLogin = findViewById(R.id.et_goToLogin);

bt_register = findViewById(R.id.bt_register);

bt_register.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {

        String fullname = et_fullname.getText().toString();
        String gender = et_gender.getText().toString();
        String age = et_age.getText().toString();
        String pn = et_pn.getText().toString();
        Log.d("User Number Register Activity", pn);

        Bundle bundle = new Bundle();
        bundle.putString("fullname", fullname);
        bundle.putString("gender", gender);
        bundle.putString("age", age);
        bundle.putString("pn", pn);

        Intent i = new Intent(RegisterActivity.this, OTPActivity.class);
        i.putExtras(bundle);
        startActivity(i);

    }
});

et_goToLogin.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {

        Intent i = new Intent(RegisterActivity.this, UserLoginActivity.class);
        startActivity(i);

    }
});
}

@Override
protected void onStart() {
    super.onStart();
    FirebaseUser user = auth.getCurrentUser();
    if(user != null){

        Intent i = new Intent(RegisterActivity.this, GuardianInformationActivity.class);
        startActivity(i);
        finish();
    }
}

```

```
}  
}  
}
```

- SplashhScreenActivity

```
package com.company.currentlocation;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.os.CountDownTimer;  
import android.view.animation.AnimationUtils;  
import android.widget.ImageView;  
  
public class SplashhScreenActivity extends AppCompatActivity {  
  
    ImageView iv_big, iv_nari;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_splashh_screen);  
  
        if(getSupportActionBar() != null){  
            getSupportActionBar().hide();  
        }  
  
        iv_big = findViewById(R.id.iv_big);  
        iv_nari = findViewById(R.id.iv_nari);  
  
        iv_nari.startAnimation(AnimationUtils.loadAnimation(this, R.anim.fade_in));  
  
        new CountDownTimer(6000, 1000) {  
            @Override  
            public void onTick(long l) {  
  
            }  
  
            @Override  
            public void onFinish() {  
                Intent i = new Intent(SplashhScreenActivity.this, BasicLoginActivity.class);  
                startActivity(i);  
                finish();  
            }  
        }.start();  
}
```

```
}  
}
```

- UserData

```
package com.company.currentlocation;  
  
public class UserData {  
  
    private String phone;  
    private String fullname;  
    private String age;  
    private String gender;  
  
    public UserData(String phone, String fullname, String age, String gender) {  
  
        this.phone = phone;  
        this.fullname = fullname;  
        this.age = age;  
        this.gender = gender;  
    }  
  
    public UserData(){}  
  
    public String getPhone() {  
        return phone;  
    }  
  
    public void setPhone(String phone) {  
        this.phone = phone;  
    }  
  
    public String getFullname() {  
        return fullname;  
    }  
  
    public void setFullname(String fullname) {  
        this.fullname = fullname;  
    }  
  
    public String getAge() {  
        return age;  
    }  
  
    public void setAge(String age) {  
        this.age = age;  
    }  
  
    public String getGender() {  
        return gender;  
    }  
  
    public void setGender(String gender) {
```

```

        this.gender = gender;
    }
}

```

- UserLoginActivity

```

package com.company.currentlocation;

import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

import com.google.android.gms.tasks.OnCompleteListener;
import com.google.android.gms.tasks.Task;
import com.google.firebase.FirebaseException;
import com.google.firebase.auth.AuthResult;
import com.google.firebase.auth.FirebaseAuth;
import com.google.firebase.auth.PhoneAuthCredential;
import com.google.firebase.auth.PhoneAuthOptions;
import com.google.firebase.auth.PhoneAuthProvider;
import com.google.firebase.database.DataSnapshot;
import com.google.firebase.database.DatabaseError;
import com.google.firebase.database.DatabaseReference;
import com.google.firebase.database.FirebaseDatabase;
import com.google.firebase.database.ValueEventListener;

import java.util.concurrent.TimeUnit;

public class UserLoginActivity extends AppCompatActivity {
    FirebaseDatabase firebaseDatabase = FirebaseDatabase.getInstance();
    DatabaseReference databaseReference = firebaseDatabase.getReference().child("Users");

    EditText et_numberLogin, et_enterOTP;
    Button bt_otpSend, bt_verify;
    TextView tv_goToRegister;

    String userLoginNumber;

    FirebaseAuth mAuth = FirebaseAuth.getInstance();

    private String verificationId;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_user_login);
    }
}

```

```

et_numberLogin = findViewById(R.id.et_numberLogin);
bt_otpSend = findViewById(R.id.bt_otpSend);
et_enterOTP = findViewById(R.id.et_enterOTP);
bt_verify = findViewById(R.id.bt_verifyOTP);
tv_goToRegister = findViewById(R.id.tv_goToRegister);

bt_otpSend.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {

        userLoginNumber = et_numberLogin.getText().toString();
        Log.d("some",userLoginNumber);
        Boolean b = numberVerificationInDatabase(userLoginNumber);
        if(b) {
            sendVerificationCode(userLoginNumber);
        }

    }
});

bt_verify.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        verifyCode(et_enterOTP.getText().toString());
    }
});

tv_goToRegister.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        try {
            Intent i = new Intent(UserLoginActivity.this, RegisterActivity.class);
            startActivity(i);
        }
        catch (Exception e)
        {
            Toast.makeText(UserLoginActivity.this, e.getMessage(), Toast.LENGTH_SHORT).show();
        }
    }
});
}

private boolean numberVerificationInDatabase(String userLoginNumber){

    databaseReference.addValueEventListener(new ValueEventListener() {
        @Override
        public void onDataChange(@NonNull DataSnapshot snapshot) {

            Boolean b=false;

            for(DataSnapshot dataSnapshot : snapshot.getChildren()){
                if(dataSnapshot.getKey().toString().equals(userLoginNumber)){

                    et_enterOTP.setVisibility(View.VISIBLE);
                    bt_verify.setVisibility(View.VISIBLE);
                    b = true;

```



```

        }
    }

    if(!b){

        Toast.makeText(UserLoginActivity.this, "User Not Registered",
Toast.LENGTH_SHORT).show();

    }

}

@Override
public void onCancelled(@NonNull DatabaseError error) {

}

});

et_enterOTP.setVisibility(View.VISIBLE);
bt_verify.setVisibility(View.VISIBLE);
return true;

}

private void sendVerificationCode(String number) {

    PhoneAuthOptions options =
        PhoneAuthOptions.newBuilder(mAuth)
            .setPhoneNumber(number)
            .setTimeout(60L, TimeUnit.SECONDS)
            .setActivity(this)
            .setCallbacks(mCallBack)
            .build();
    PhoneAuthProvider.verifyPhoneNumber(options);

}

private PhoneAuthProvider.OnVerificationStateChangedCallbacks mCallBack =
    new PhoneAuthProvider.OnVerificationStateChangedCallbacks() {

        @Override
        public void onCodeSent(String s, PhoneAuthProvider.ForceResendingToken
forceResendingToken) {
            super.onCodeSent(s, forceResendingToken);

            verificationId = s;
        }

    }

    @Override

```

```

public void onVerificationCompleted(@NonNull PhoneAuthCredential phoneAuthCredential) {

    final String code = phoneAuthCredential.getSmsCode();

    if (code != null) {

        et_enterOTP.setText(code);

        verifyCode(code);
    }
}

@Override
public void onVerificationFailed(@NonNull FirebaseException e) {

    Toast.makeText(UserLoginActivity.this, e.getMessage(), Toast.LENGTH_LONG).show();

}

};

private void verifyCode(String code) {
    try {
        PhoneAuthCredential credential = PhoneAuthProvider.getCredential(verificationId, code);
        signInWithCredential(credential);
    } catch (Exception e)
    {
        Toast.makeText(UserLoginActivity.this, e.getMessage(), Toast.LENGTH_LONG).show();
    }
}

private void signInWithCredential(PhoneAuthCredential credential) {

    mAuth.signInWithCredential(credential)
        .addOnCompleteListener(new OnCompleteListener<AuthResult>() {

            @Override
            public void onComplete(@NonNull Task<AuthResult> task) {
                if (task.isSuccessful()) {

                    Toast.makeText(UserLoginActivity.this, "OTP VERIFIED",
Toast.LENGTH_SHORT).show();

                    Intent i = new Intent(UserLoginActivity.this, MainActivity.class);
                    i.putExtra("userNumber", et_numberLogin.getText().toString());
                    startActivity(i);

                }

                else {

                    Toast.makeText(UserLoginActivity.this, task.getException().getMessage(),
Toast.LENGTH_LONG).show();

```

```
    }  
  }  
});  
}
```