Ex.No:13 Date:	MESSAGING APPLICATION ANDROID PROJECT

Project Abstract:

For mobile phone users, short message service (SMS) is the most commonly used text-based communication type on mobile devices. Users can interact with other users and services via SMS. For example, users can send private messages, use information services, apply for a job advertisement, conduct bank transactions, and so on. Users should be very careful when using SMS. During the sending of SMS, the message content should be aware that it can be captured and act accordingly. In this study, we propose and develop an android application to send text messages. The application has a simple and easy-to-use graphical user interface.

Proposed System:

A simple user interface with just two text fields and a button.The user just want to enter the contact number with the country code, type the text message and click on send button.The screen will be refreshed for the next message.

Benefits:

- Contacts need not to be saved.
- Messages are offline so it doesn't depend on internet.
- Communications are faster.

CODE:

Activity_main.xml:

```
<?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=".MainActivity">

    <Button
        android:id="@+id/send"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="send"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.442"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.948" />
```

```
    <EditText
        android:id="@+id/message"
        android:layout_width="376dp"
        android:layout_height="88dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.382"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.279" />

    <EditText
        android:id="@+id/number"
        android:layout_width="248dp"
        android:layout_height="48dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.098"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.147" />

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

MainActivity.java:

```
package com.example.message_app;

import androidx.appcompat.app.AppCompatActivity;

import android.app.PendingIntent;
import android.content.Intent;
import android.os.Bundle;
import android.telephony.SmsManager;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
```

```
import android.widget.TextView;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        EditText number = findViewById(R.id.number);
        EditText message = findViewById(R.id.message);
        Button send_btn= findViewById(R.id.send);
        send_btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String no=number.getText().toString();
                String msg=message.getText().toString();

                //Getting intent and PendingIntent instance
                Intent intent=new Intent(getApplicationContext(),MainActivity.class);
                PendingIntent pi=PendingIntent.getActivity(getApplicationContext(), 0, intent,0);

                //Get the SmsManager instance and call the sendTextMessage method to send message
                SmsManager sms=SmsManager.getDefault();
                sms.sendTextMessage(no, null, msg, pi,null);

                Toast.makeText(getApplicationContext(), "Message Sent successfully!",
                        Toast.LENGTH_LONG).show();
            }
        });

    }
}
```

RESULT:

Thus the project for sending SMS was executed successfully.