import androidx.annotation.Nullable;  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.core.app.ActivityCompat;  
import androidx.core.content.ContextCompat;  
  
import android.Manifest;  
import android.annotation.SuppressLint;  
import android.app.Activity;  
import android.content.Intent;  
import android.content.pm.PackageManager;  
import android.database.Cursor;  
import android.net.Uri;  
import android.os.Bundle;  
import android.provider.ContactsContract;  
import android.telephony.SmsManager;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.ImageButton;  
import android.widget.Toast;  
  
public class MainActivity extends AppCompatActivity {  
 String pn, mess;  
 Button send\_sms;  
 ImageButton ib;  
 EditText na, num, message;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 Intent pickcontact = new Intent(  
 Intent.*ACTION\_PICK*,  
 ContactsContract.CommonDataKinds.Phone.*CONTENT\_URI*);  
 Toast t = new Toast(this);  
 na = findViewById(R.id.*name*);  
 num = findViewById(R.id.*Number*);  
 message = findViewById(R.id.*message*);  
 ib = findViewById(R.id.*ib*);  
 send\_sms = findViewById(R.id.*Send\_sms*);  
 ib.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 startActivityForResult(pickcontact, 1);  
 }  
 });  
 requestContactsPermission();  
 send\_sms.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 pn = num.getText().toString();  
 mess = message.getText().toString();  
 if (pn.equalsIgnoreCase("") || mess.equalsIgnoreCase("")) {  
 t.setText("phone number or message is empty");  
 t.setDuration(Toast.*LENGTH\_SHORT*);  
 t.show();  
 na.requestFocus();  
 } else {  
 SmsManager smsManager = SmsManager.*getDefault*();  
 smsManager.sendTextMessage(pn, null, mess, null, null);  
 t.setText("SMS Sent");  
 t.setDuration(Toast.*LENGTH\_SHORT*);  
 t.show();  
 }  
 }  
 });  
 }  
 // Request contact permission if it  
 // has not been granted already  
 private void requestContactsPermission() {  
 if (!hasContactsPermission()) {  
 ActivityCompat.*requestPermissions*(this,  
 new String[]{Manifest.permission.*READ\_CONTACTS*}, 1);  
 }  
 if (!hasSendSMSPermission()) {  
 ActivityCompat.*requestPermissions*(this,  
 new String[]{Manifest.permission.*SEND\_SMS*}, 1);  
 }  
 }  
 private boolean hasContactsPermission() {  
 return ContextCompat.*checkSelfPermission*(this, Manifest.permission.*READ\_CONTACTS*)  
 ==  
 PackageManager.*PERMISSION\_GRANTED*;  
 }  
 private boolean hasSendSMSPermission() {  
 return ContextCompat.*checkSelfPermission*(this, Manifest.permission.*SEND\_SMS*) ==  
 PackageManager.*PERMISSION\_GRANTED*;  
 }  
 @SuppressLint({"SuspiciousIndentation", "Range"})  
 @Override  
 protected void onActivityResult(int requestCode, int resultCode, @Nullable Intent data) {  
 super.onActivityResult(requestCode, resultCode, data);  
 if (resultCode != Activity.*RESULT\_OK*) return;  
 Uri contactUri = data.getData();  
 Cursor cursor = this.getContentResolver().query(contactUri,  
 new String[]{"display\_name","data1"},  
 null,  
 null,  
 null);  
 try {  
 if (cursor.getCount() == 0) return;  
 cursor.moveToFirst();  
 na.setText(cursor.getString(0));  
 num.setText(cursor.getString(1));  
 } finally {  
 System.*out*.println("in phone cursor");  
 }  
 }  
}

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"  
 android:orientation="vertical"  
 tools:context=".MainActivity">  
  
 <LinearLayout  
 android:layout\_width="wrap\_content"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent">  
 <TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:gravity="center"  
 android:textSize="30dp"  
 android:text="SMS Application"/>  
 <LinearLayout  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal">  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:gravity="center"  
 android:textSize="30dp"  
 android:text="Name:"/>  
 <EditText  
 android:layout\_width="250dp"  
 android:layout\_height="50dp"  
 android:layout\_gravity="top"  
 android:id="@+id/name"/>  
 <ImageButton  
 android:layout\_width="50dp"  
 android:layout\_height="50dp"  
 android:id="@+id/ib"  
 android:src="@drawable/ic\_launcher\_background"/>  
 </LinearLayout> <LinearLayout  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal">  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:gravity="center"  
 android:textSize="30dp"  
 android:text="Number:"/>  
 <EditText  
 android:layout\_width="400dp"  
 android:layout\_height="50dp"  
 android:layout\_gravity="top"  
 android:id="@+id/Number"/>  
 </LinearLayout> <LinearLayout  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal">  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:gravity="center"  
 android:textSize="30dp"  
 android:text="Message:"/>  
 <EditText  
 android:layout\_width="400dp"  
 android:layout\_height="50dp"  
 android:layout\_gravity="top"  
 android:id="@+id/message"/>  
 </LinearLayout>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_gravity="center"  
 android:clickable="true"  
 android:text="Send SMS"  
 android:id="@+id/Send\_sms"/>  
 </LinearLayout>  
  
</androidx.constraintlayout.widget.ConstraintLayout>

Manifest

<uses-permission android:name="android.permission.SEND\_SMS"/>  
<uses-permission android:name="android.permission.READ\_CONTACTS"/>  
<uses-permission android:name="android.permission.WRITE\_CONTACTS"/>