

Start the android project with empty activity XML file

```
<?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="com.example.messagesms.MainActivity">

    <Button
        android:text="Send SMS"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/btnSendSMS"
        app:layout_constraintLeft_toLeftOf="@+id/activity_main"
        app:layout_constraintTop_toTopOf="@+id/activity_main"
        android:layout_marginTop="16dp"
        app:layout_constraintRight_toRightOf="@+id/activity_main"
        app:layout_constraintBottom_toBottomOf="@+id/activity_main"
        android:layout_marginBottom="16dp"
        android:onClick="onClick"
        tools:ignore="UnknownId" />

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

Main activity.java

```
package com.example.messagesms;

import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.core.content.ContextCompat;
import android.Manifest;
import android.content.pm.PackageManager;
import android.os.Bundle;
import android.telephony.SmsManager;
import android.view.View;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    final private int REQUEST_SEND_SMS = 123;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        if (ContextCompat.checkSelfPermission(this,
            Manifest.permission.SEND_SMS)
            != PackageManager.PERMISSION_GRANTED) {
            ActivityCompat.requestPermissions(this,
                new String[]{Manifest.permission.SEND_SMS},
                REQUEST_SEND_SMS);
        }
    }
    @Override
    public void onRequestPermissionsResult(int requestCode,
        String[] permissions, int[]
```

Messaging using telephony services

```
grantResults) {
    switch (requestCode) {
        case REQUEST_SEND_SMS:
            if (grantResults[0] == PackageManager.PERMISSION_GRANTED) {
                Toast.makeText(MainActivity.this,
                    "Permission Granted",
                    Toast.LENGTH_SHORT).show();
            } else {
                Toast.makeText(MainActivity.this,
                    "Permission Denied",
                    Toast.LENGTH_SHORT).show();
            }
            break;
        default:
            super.onRequestPermissionsResult(requestCode,
                permissions, grantResults);
    }
}

public void onClick(View v) {
    //---the "phone number" of your emulator should be 5554---
    sendSMS("5554", "Hello my friends!");
}

//---sends an SMS message---
private void sendSMS(String phoneNumber, String message)
{
    SmsManager sms = SmsManager.getDefault();
    sms.sendTextMessage(phoneNumber, null, message, null, null);
}
}
```

androidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools">
    <uses-permission android:name="android.permission.SEND_SMS"/>
    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:supportsRtl="true"
        android:theme="@style/Theme.Messagesms"
        tools:targetApi="31">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER"
            />
            </intent-filter>
        </activity>
    </application>
</manifest>
```