

Experiment1.6

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1. Aim:

Create an Android-based application and use intent to send SMS.

2. Objective:

To design an android application to send SMS using Intent.

3. Script and Output:

Step:1: First write the code in 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"
    package="com.abhimanyu.sendsms">

    <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:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true" |
        android:theme="@style/Theme.SendSms"
        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>
```

Step:2: Write the designing code in activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    android:gravity="center"
    android:padding="15sp"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/editTextPhone"
        android:hint="Enter Phone Number"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="15sp"
        android:maxLength="10"
        android:inputType="phone"
        android:background="@android:drawable/editbox_background"/>

    <EditText
        android:id="@+id/editTextMessage"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter the Message"
        android:padding="15sp"
        android:inputType="textMultiLine"
        android:lines="5"
        android:background="@android:drawable/editbox_background"
    />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/btnSent"
        android:text="Send SMS"
        android:textAllCaps="false"
        android:layout_marginTop="30dp"
    />

</LinearLayout>
```

Step:3: Write the code in MainActivity.java:

```
import androidx.annotation.NonNull;
import
androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.core.content.ContextCompat;

import android.app.Activity;
import
android.content.pm.PackageManager
;import android.os.Bundle;
import
android.telephony.SmsManager;
import android.view.View;
import
android.widget.Button;
import
android.widget.EditText;
import
android.widget.Toast;

public class MainActivity extends
    AppCompatActivity {EditText
editTextPhone, editTextMessage;
Button btnSent;

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

    editTextPhone =
    findViewById(R.id.editTextPhone);
    editTextMessage =
    findViewById(R.id.editTextMessage); btnSent =
    findViewById(R.id.btnSent);

    btnSent.setOnClickListener(new
        View.OnClickListener() { @Override
        public void onClick(View v) {
            if (ContextCompat.checkSelfPermission(MainActivity.this,
                android.Manifest.permission.SEND_SMS) == PackageManager.PERMISSION_GRANTED
            ){
                sendSMS();
            } else {
                ActivityCompat.requestPermissions(MainActivity.this,
                    new String[] { android.Manifest.permission.SEND_SMS },
                    100);
```

```
}  
@Override  
public void onRequestPermissionsResult(int requestCode, @NonNull String[]  
permissions, @NonNull int[] grantResults) {  
    super.onRequestPermissionsResult(requestCode, permissions,  
    grantResults); if(requestCode==100 && grantResults.length > 0 &&  
    grantResults[0] ==  
PackageManager.PERMISSION_GRANTED){  
        sendSMS();  
    }else{  
        Toast.makeText(this, "Permission Denied!", Toast.LENGTH_SHORT).show();  
    }  
}  
  
private void sendSMS() {  
    String phone =  
    editTextPhone.getText().toString(); String  
    message =  
    editTextMessage.getText().toString();  
  
    if(!phone.isEmpty() && !message.isEmpty()){  
        SmsManager smsManager =  
        SmsManager.getDefault();  
        smsManager.sendTextMessage(phone, null, message, null, null);  
  
        Toast.makeText(this, "SMS Sent Successfully", Toast.LENGTH_SHORT).show();  
    }  
    else{  
        Toast.makeText(this, "Please enter phone and message", Toast.LENGTH_SHORT).show();  
    }  
}  
}
```



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Output:

Message is sent to a particular mobile number with the toast message 'SMS Sent Successfully'



Output for MAD Experiment 6

Send SMS

SMS Sent Successfully

Message received successfully on target number.

