Experiment - 6

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Aim:

To design an android application Send SMS using Intent.

Objective:

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

Code:

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:supportsRtl="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>
```

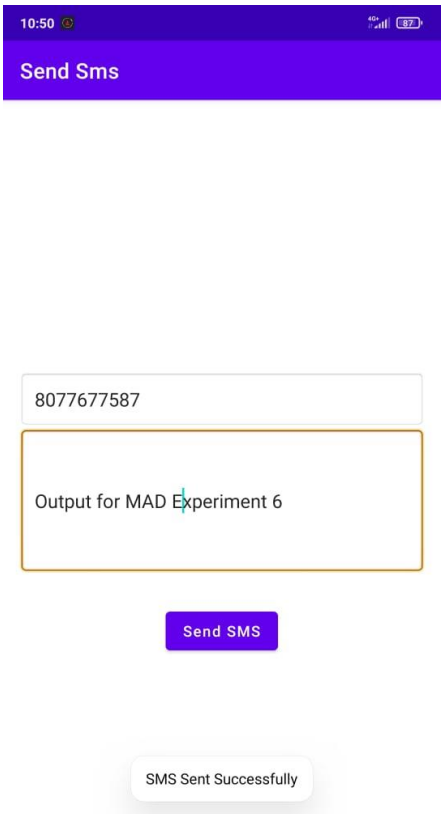
Step:3: Write the code in MainActivity.java:

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

Output:

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



Message received successfully on target number.