# **Experiment 29**

1.

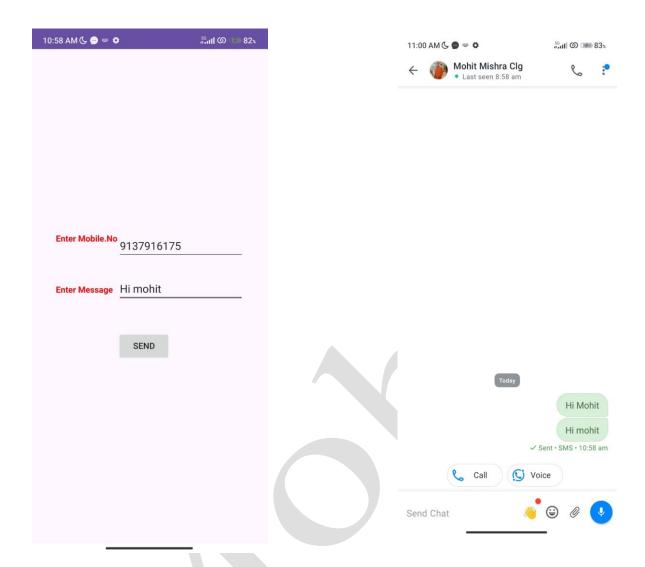
```
AndroidMainfest.xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"</pre>
  package="com.example.exp 29a">
  <uses-feature
    android:name="android.hardware.telephony"
    android:required="false" />
  <uses-permission android:name="android.permission.SEND SMS"/>
  <uses-permission android:name="android.permission.RECEIVE SMS"/>
  <application
    android:allowBackup="true"
    android:icon="@mipmap/ic launcher"
    android:label="@string/app name"
    android:roundIcon="@mipmap/ic launcher round"
    android:supportsRtl="true"
    android:theme="@style/Theme.Exp 29A">
    <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>
activity main.xml:
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
  xmlns:android="http://schemas.android.com/apk/res/android"
  android:orientation="vertical"
  android:layout width="match parent"
  android:gravity="center"
  android:layout height="match parent">
  <RelativeLayout
    android:layout width="match parent"
    android:gravity="center"
    android:layout height="wrap content">
    <TextView
       android:id="@+id/textView1"
       android:layout width="wrap content"
       android:layout height="wrap content"
```

```
android:textColor="#FF0000"
      android:textStyle="bold"
      android:text="Enter Mobile.No" />
    <EditText
    android:id="@+id/editText1"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout toEndOf="@+id/textView1"
    android:ems="10"
    android:layout toRightOf="@+id/textView1"/>
    <TextView
      android:id="@+id/textView2"
      android:layout width="wrap content"
      android:layout height="wrap_content"
      android:textStyle="bold"
      android:textColor="#FF0000"
      android:layout alignBaseline="@+id/editText2"
      android:layout alignLeft="@+id/textView1"
      android:layout alignBottom="@+id/editText2"
      android:text="Enter Message" />
    <EditText
      android:id="@+id/editText2"
      android:layout width="wrap content"
      android:layout height="wrap content"
      android:layout alignLeft="@+id/editText1"
      android:layout below="@+id/editText1"
      android:layout marginTop="26dp"
      android:ems="10"
      android:inputType="textMultiLine" />
    <Button
      android:id="@+id/button1"
      android:layout width="wrap content"
      android:layout height="wrap content"
      android:layout alignLeft="@+id/editText2"
      android:layout below="@+id/editText2"
      android:layout marginTop="48dp"
      android:text="SEND" />
  </RelativeLayout>
</LinearLayout>
MainActivity.java:
package com.example.exp 29a;
```

import android.os.Bundle; import android.app.Activity; import android.app.PendingIntent; import android.content.Intent;

```
import android.telephony.SmsManager;
import android.view.Menu;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
public class MainActivity extends Activity {
  EditText mobileno, message;
  Button sendsms;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity main);
    mobileno=(EditText)findViewById(R.id.editText1);
    message=(EditText)findViewById(R.id.editText2);
    sendsms=(Button)findViewById(R.id.button1);
    sendsms.setOnClickListener(new OnClickListener() {
      @Override
      public void onClick(View arg0) {
         String no=mobileno.getText().toString();
         String msg=message.getText().toString();
         Intent intent=new
              Intent(getApplicationContext(),MainActivity.class);
         PendingIntent
             pi=PendingIntent.getActivity(getApplicationContext(), 0, intent,
PendingIntent.FLAG IMMUTABLE);
         SmsManager.getDefault();
         sms.sendTextMessage(no, null, msg, pi,null);
         Toast.makeText(getApplicationContext(), "Message Sent successfully!",
Toast.LENGTH LONG).show();
```

### **Output:**



## 2.

# AndroidManifest.xml:

```
android:exported="true">
<intent-filter>
<action android:name="android.provider.Telephony.SMS_RECEIVED"/>
</intent-filter>
</receiver>
<activity android:name=".MainActivity">
<intent-filter>
<action android:name="android.intent.action.MAIN" />
<category android:name="android.intent.category.LAUNCHER" />
</intent-filter>
</activity>
</application>
</manifest>
activity main.xml:
<?xml version="1.0" encoding="utf-8"?>
<LinearLayoutxmlns:android="http://schemas.android.com/apk/res/android"</p>
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"
android:padding="10dp">
<ListView
android:layout width="wrap content"
android:layout height="wrap content"
tools:layout editor absoluteX="8dp"
tools:layout editor absoluteY="8dp"
android:id="@+id/SMSList"/>
</LinearLayout>
MainActivity.java:
package com.example.exp29 1;
import android.content.ContentResolver;
import android.content.pm.PackageManager;
import android.database.Cursor;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.core.content.ContextCompat;
```

```
import java.util.ArrayList;
public class MainActivity extends AppCompatActivity {
private static MainActivity inst;
ArrayList<String> smsMessagesList = new ArrayList<String>();
ListView smsListView;
ArrayAdapter arrayAdapter;
public static MainActivity instance() {
return inst;
@Override
public void onStart() {
super.onStart();
inst = this;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity main);
smsListView = (ListView) findViewById(R.id.SMSList);
arrayAdapter = new ArrayAdapter < String > (this,
android.R.layout.simple list item 1, smsMessagesList);
smsListView.setAdapter(arrayAdapter);
// Add SMS Read Permision At Runtime
// Todo : If Permission Is Not GRANTED
if(ContextCompat.checkSelfPermission(getBaseContext(),
"android.permission.READ SMS") == PackageManager.PERMISSION GRANTED) {
// Todo : If Permission Granted Then Show SMS
refreshSmsInbox();
} else {
/ Todo : Then Set Permission
final int REQUEST CODE ASK PERMISSIONS = 123;
ActivityCompat.requestPermissions(MainActivity.this, new
String[]{"android.permission.READ SMS"}, REQUEST CODE ASK PERMISSIONS);
public void refreshSmsInbox() {
ContentResolver contentResolver = getContentResolver();
Cursor smsInboxCursor =
contentResolver.query(Uri.parse("content://sms/inbox"), null, null, null, null);
int indexBody = smsInboxCursor.getColumnIndex("body");
int indexAddress = smsInboxCursor.getColumnIndex("address");
if (indexBody < 0 || !smsInboxCursor.moveToFirst()) return;
arrayAdapter.clear();
do {
String str = "SMS From: " + smsInboxCursor.getString(indexAddress) +
"\n" + smsInboxCursor.getString(indexBody) + "\n";
```

```
arrayAdapter.add(str);
} while (smsInboxCursor.moveToNext());
public void updateList(final String smsMessage) {
arrayAdapter.insert(smsMessage, 0);
arrayAdapter.notifyDataSetChanged();
public void onItemClick(AdapterView<?> parent, View view, int pos, long id) {
String[] smsMessages = smsMessagesList.get(pos).split("\n");
String address = smsMessages[0];
String smsMessage = "";
for (int i = 1; i < smsMessages.length; ++i) {
smsMessage += smsMessages[i];
String smsMessageStr = address + "\n";
smsMessageStr += smsMessage;
Toast.makeText(this, smsMessageStr, Toast.LENGTH SHORT).show();
} catch (Exception e) {
e.printStackTrace();
SMSBReceiver.java:
package com.example.exp29 1;
import android.content.BroadcastReceiver;
import android.content.ContentResolver;
import android.content.Context;
import android.content.Intent;
import android.database.Cursor;
import android.net.Uri;
import android.os.Bundle;
import android.telephony.SmsMessage;
import android.widget.Toast;
class SMSBReceiver extends BroadcastReceiver{
public static final String SMS BUNDLE = "pdus";
public void onReceive(Context context, Intent intent) {
Bundle intentExtras = intent.getExtras();
if (intentExtras != null) {
Object[] sms = (Object[]) intentExtras.get(SMS_BUNDLE);
String smsMessageStr = "":
for (int i = 0; i < sms.length; ++i) {
SmsMessage smsMessage =
SmsMessage.createFromPdu((byte[]) sms[i]);
```

```
String smsBody =
smsMessage.getMessageBody().toString();
String address = smsMessage.getOriginatingAddress();
smsMessageStr += "SMS From: " + address + "\n";
smsMessageStr += smsBody + "\n";
}
Toast.makeText(context, smsMessageStr,
Toast.LENGTH_SHORT).show();
//this will update the UI with message
MainActivity inst = MainActivity.instance();
inst.updateList(smsMessageStr);
}
}
Output:
```

# SMS From: +917208660075 hii SMS From: AD-TRAIND TRAI never sends any message or makes any call for verification/ disconnection/ reporting unlawful activities of mobile numbers. Beware of such messages/calls in the name

call for verification/ disconnection/ reporting unlawful activities of mobile numbers.

Beware of such messages/calls in the name of TRAI. Any call or message claiming to be from TRAI should be considered potentially fraudulent and may be reported to the National Cyber Crime Reporting Portal (www.cybercrime.gov.in) or Cyber Crime Helpline (1930).

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SMS From: AM-AIRTEL

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