MainActivity.java

import android.content.Intent;

import android.os.Bundle;

import android.support.v7.app.ActionBarActivity;

import android.view.View;

public class MainActivity extends ActionBarActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

}

public void goToInbox(View view) {

Intent intent = new Intent(MainActivity.this, ReceiveSmsActivity.class);

startActivity(intent);

}

public void goToCompose(View view) {

Intent intent = new Intent(MainActivity.this, SendSmsActivity.class);

startActivity(intent);

}

}

SendSmsActivity.java

import android.app.Activity;

import android.content.Intent;

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 SendSmsActivity extends Activity {

Button sendSMSBtn;

EditText toPhoneNumberET;

EditText smsMessageET;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_send\_sms);

sendSMSBtn = (Button) findViewById(R.id.btnSendSMS);

toPhoneNumberET = (EditText) findViewById(R.id.editTextPhoneNo);

smsMessageET = (EditText) findViewById(R.id.editTextSMS);

sendSMSBtn.setOnClickListener(new View.OnClickListener() {

public void onClick(View view) {

sendSMS();

}

});

}

protected void sendSMS() {

String toPhoneNumber = toPhoneNumberET.getText().toString();

String smsMessage = smsMessageET.getText().toString();

try {

SmsManager smsManager = SmsManager.getDefault();

smsManager.sendTextMessage(toPhoneNumber, null, smsMessage, null, null);

Toast.makeText(getApplicationContext(), "SMS sent.",

Toast.LENGTH\_LONG).show();

} catch (Exception e) {

Toast.makeText(getApplicationContext(),

"Sending SMS failed.",

Toast.LENGTH\_LONG).show();

e.printStackTrace();

}

}

public void goToInbox(View view) {

Intent intent = new Intent(SendSmsActivity.this, ReceiveSmsActivity.class);

startActivity(intent);

}

}

ReceiveSmsActivity.java

import android.app.Activity;

import android.content.ContentResolver;

import android.content.Intent;

import android.database.Cursor;

import android.net.Uri;

import android.os.Bundle;

import android.view.View;

import android.widget.AdapterView;

import android.widget.AdapterView.OnItemClickListener;

import android.widget.ArrayAdapter;

import android.widget.ListView;

import android.widget.Toast;

import java.text.SimpleDateFormat;

import java.util.ArrayList;

import java.util.Date;

public class ReceiveSmsActivity extends Activity implements OnItemClickListener {

private static ReceiveSmsActivity inst;

ArrayList<String> smsMessagesList = new ArrayList<String>();

ListView smsListView;

ArrayAdapter arrayAdapter;

public static ReceiveSmsActivity instance() {

return inst;

}

@Override

public void onStart() {

super.onStart();

inst = this;

}

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_receive\_sms);

smsListView = (ListView) findViewById(R.id.SMSList);

arrayAdapter = new ArrayAdapter<String>(this, android.R.layout.simple\_list\_item\_1, smsMessagesList);

smsListView.setAdapter(arrayAdapter);

smsListView.setOnItemClickListener(this);

refreshSmsInbox();

}

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");

long timeMillis = smsInboxCursor.getColumnIndex("date");

Date date = new Date(timeMillis);

SimpleDateFormat format = new SimpleDateFormat("dd/MM/yy");

String dateText = format.format(date);

if (indexBody < 0 || !smsInboxCursor.moveToFirst()) return;

arrayAdapter.clear();

do {

String str = smsInboxCursor.getString(indexAddress) +" at "+

"\n" + smsInboxCursor.getString(indexBody) +dateText+ "\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) {

try {

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();

}

}

public void goToCompose(View view) {

Intent intent = new Intent(ReceiveSmsActivity.this, SendSmsActivity.class);

startActivity(intent);

}

}

smsReceiverBroadast.java

import android.content.BroadcastReceiver;

import android.content.Context;

import android.content.Intent;

import android.os.Bundle;

import android.telephony.SmsMessage;

import android.widget.Toast;

import java.text.SimpleDateFormat;

import java.util.Date;

public class SmsBroadcastReceiver 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();

long timeMillis = smsMessage.getTimestampMillis();

Date date = new Date(timeMillis);

SimpleDateFormat format = new SimpleDateFormat("dd/MM/yy");

String dateText = format.format(date);

smsMessageStr += address +" at "+"\t"+ dateText + "\n";

smsMessageStr += smsBody + "\n";

}

Toast.makeText(context, smsMessageStr, Toast.LENGTH\_SHORT).show();

//this will update the UI with message

ReceiveSmsActivity inst = ReceiveSmsActivity.instance();

inst.updateList(smsMessageStr);

}

}

}

Manifest file:

<?xml version="1.0" encoding="utf-8"?>

<manifest xmlns:android="http://schemas.android.com/apk/res/android"

package="com.javapapers.android.androidsmsapp">

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

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

<uses-permission android:name="android.permission.RECEIVE\_SMS" />

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

<application

android:allowBackup="true"

android:icon="@mipmap/ic\_launcher"

android:label="@string/app\_name"

android:theme="@style/AppTheme">

<activity

android:name=".MainActivity"

android:label="@string/app\_name">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

</activity>

<activity

android:name=".ReceiveSmsActivity"

android:label="@string/app\_name"></activity>

<activity

android:name=".SendSmsActivity"

android:label="@string/app\_name"></activity>

<receiver

android:name=".SmsBroadcastReceiver"

android:exported="true">

<intent-filter android:priority="999">

<action android:name="android.provider.Telephony.SMS\_RECEIVED" />

</intent-filter>

</receiver>

</application>

</manifest>