1. **Create an application to send and receive messages using SMS Manager.**

**XML CODE:**

*<?*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:orientation="vertical"  
 android:layout\_marginTop="140dp"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
  
 <EditText  
 android:id="@+id/editText"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:ems="10"  
 android:hint="Enter number"/>  
 <EditText  
 android:id="@+id/editText2"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:ems="10"  
 android:hint="Enter message" />  
  
 <Button  
 android:id="@+id/button"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="20dp"  
 android:layout\_marginLeft="60dp"  
 android:layout\_marginRight="60dp"  
 android:text="SEND" />  
</LinearLayout>

**JAVA CODE:**

package com.example.smswitnnointenet;  
  
import android.Manifest;  
import android.content.pm.PackageManager;  
  
import android.os.Bundle;  
import android.os.Bundle;  
import android.telephony.SmsManager;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.Toast;  
  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.core.app.ActivityCompat;  
import androidx.core.content.ContextCompat;  
  
  
public class MainActivity extends AppCompatActivity {  
 private static final int *REQUEST\_SMS\_PERMISSION* = 1;  
 EditText phonenumber,message;  
 Button send;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 send=findViewById(R.id.*button*);  
 phonenumber=findViewById(R.id.*editText*);  
 message=findViewById(R.id.*editText2*);  
 if (ContextCompat.*checkSelfPermission*(this, Manifest.permission.*SEND\_SMS*) != PackageManager.*PERMISSION\_GRANTED*) {  
 ActivityCompat.*requestPermissions*(this, new String[]{Manifest.permission.*SEND\_SMS*}, *REQUEST\_SMS\_PERMISSION*);  
 }  
 send.setOnClickListener(new View.OnClickListener() {  
  
 public void onClick(View view) {  
 String number=phonenumber.getText().toString();  
 String msg=message.getText().toString();  
 try {  
 SmsManager smsManager=SmsManager.*getDefault*();  
 smsManager.sendTextMessage(number,null,msg,null,null);  
 Toast.*makeText*(getApplicationContext(),"Message Sent",Toast.*LENGTH\_LONG*).show();  
 }  
 catch (Exception e)  
 {  
 e.printStackTrace();  
 Toast.*makeText*(getApplicationContext(), "Some error occurred: " + e.getMessage(), Toast.*LENGTH\_LONG*).show();  
 }  
 }  
 });  
 }  
}

**MANIFESTFILE:**

*<?*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" />

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

<uses-permission android:name="android.permission.READ\_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.MyApplication"

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>

<meta-data

android:name="android.app.lib\_name"

android:value="" />

</activity>

</application>

</manifest>

1. **Create an application to send and receive messages using SMS Manager using Intent.**

**Xml code**

*<?*xml version="1.0" encoding="utf-8"*?>*<RelativeLayout 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=".MainActivity">  
  
 <Button  
 android:id="@+id/sendSmsButton"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_centerInParent="true"  
 android:text="Send SMS" />  
</RelativeLayout>

**Java code:**

package com.example.smswithintent;  
  
import android.os.Bundle;  
import android.app.Activity;  
import android.content.Intent;  
import android.net.Uri;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
  
public class MainActivity extends Activity {  
 private Button sendSmsButton;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 sendSmsButton = findViewById(R.id.*sendSmsButton*);  
  
 sendSmsButton.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 sendSMS("0123456789", "Hello, this is a test message.");  
 }  
 });  
 }  
  
 private void sendSMS(String phoneNumber, String message) {  
 Intent intent = new Intent(Intent.*ACTION\_SENDTO*);  
 intent.setData(Uri.*parse*("smsto:" + phoneNumber));  
 intent.putExtra("sms\_body", message);  
  
 if (intent.resolveActivity(getPackageManager()) != null) {  
 startActivity(intent);  
 }  
 }  
}

**manifest**

*<?*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:roundIcon="@mipmap/ic\_launcher\_round"

android:supportsRtl="true"

android:theme="@style/Theme.MyApplication"

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>

<meta-data

android:name="android.app.lib\_name"

android:value="" />

</activity>

</application>

</manifest>

**4. NOT THERE**

**3.And 5. Create an Android application to send email with an attachment.**

**Xml code**

<?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:padding="4dp"

tools:context=".MainActivity">

<EditText

android:id="@+id/etTo"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_margin="5dp"

android:hint="Receiver's Email Address!"

android:inputType="textEmailAddress"

android:singleLine="true" />

<EditText

android:id="@+id/etSubject"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_margin="5dp"

android:hint="Enter Subject"

android:singleLine="true" />

<EditText

android:id="@+id/etMessage"

android:layout\_width="match\_parent"

android:layout\_height="200dp"

android:layout\_margin="5dp"

android:gravity="top|start"

android:hint="Compose Email"

android:inputType="textMultiLine" />

<RelativeLayout

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content">

<Button

android:id="@+id/btSend"

android:layout\_width="80dp"

android:layout\_height="50dp"

android:layout\_margin="5dp"

android:text="Send" />

<Button

android:id="@+id/btAttachment"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_alignParentEnd="true"

android:text="attachment" />

</RelativeLayout>

<TextView

android:id="@+id/tvAttachment"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:drawableStart="@drawable/ic\_launcher\_background"

android:visibility="gone" />

</LinearLayout>

**Java code**

package com.example.email\_attach;

import androidx.appcompat.app.AppCompatActivity;

import android.annotation.SuppressLint;

import android.app.Activity;

import android.content.Intent;

import android.net.Uri;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import android.widget.Toast;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

EditText etEmail;

EditText etSubject;

EditText etMessage;

Button Send;

Button attachment;

TextView tvAttachment;

String email;

String subject;

String message;

Uri URI = null;

private static final int PICK\_FROM\_GALLERY = 101;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

etEmail = findViewById(R.id.etTo);

etSubject = findViewById(R.id.etSubject);

etMessage = findViewById(R.id.etMessage);

attachment = findViewById(R.id.btAttachment);

tvAttachment = findViewById(R.id.tvAttachment);

Send = findViewById(R.id.btSend);

Send.setOnClickListener(new View.OnClickListener(){

@Override

public void onClick(View v) {

sendEmail();

}

});

attachment.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

openFolder();

}

});

}

@SuppressLint("MissingSuperCall")

protected void onActivityResult(int requestCode, int resultCode, Intent data) {

super.onActivityResult(requestCode, resultCode, data);

if (requestCode == PICK\_FROM\_GALLERY && resultCode == RESULT\_OK) {

URI = data.getData();

tvAttachment.setText(URI.getLastPathSegment());

tvAttachment.setVisibility(View.VISIBLE);

}

}

public void sendEmail() {

try {

email = etEmail.getText().toString();

subject = etSubject.getText().toString();

message = etMessage.getText().toString();

final Intent emailIntent = new Intent(android.content.Intent.ACTION\_SEND);

emailIntent.setType("plain/text");

emailIntent.putExtra(android.content.Intent.EXTRA\_EMAIL, new String[]{email});

emailIntent.putExtra(android.content.Intent.EXTRA\_SUBJECT, subject);

if (URI != null) {

emailIntent.putExtra(Intent.EXTRA\_STREAM, URI);

}

emailIntent.putExtra(android.content.Intent.EXTRA\_TEXT, message);

this.startActivity(Intent.createChooser(emailIntent, "Sending email..."));

} catch (Throwable t) {

Toast.makeText(this, "Request failed try again: "+ t.toString(), Toast.LENGTH\_LONG).show();

}

}

public void openFolder() {

Intent intent = new Intent();

intent.setType("image/\*");

intent.setAction(Intent.ACTION\_GET\_CONTENT);

intent.putExtra("return-data", true);

startActivityForResult(Intent.createChooser(intent, "Complete action using"), PICK\_FROM\_GALLERY);

}

}

**android manifest file**

<uses-permission android:name="android.permission.INTERNET" />

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

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

<uses-permission android:name="android.permission.ACCESS\_NETWORK\_STATE" />

**6. Create an Android application to demonstrate phone call using Implicit Intent.**

**XML Code**

*<?*xml version="1.0" encoding="utf-8"*?>*<RelativeLayout 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=".MainActivity">  
  
 <Button  
 android:id="@+id/callButton"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Make Phone Call"  
 android:onClick="makePhoneCall"  
 android:layout\_centerInParent="true"/>  
  
</RelativeLayout>

**Manifiest file**

*<?*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.CALL\_PHONE"/>  
  
 <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.Phonecallintent"  
 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>  
  
 <meta-data  
 android:name="android.app.lib\_name"  
 android:value="" />  
 </activity>  
 </application>  
  
</manifest>

**Java code**

package com.example.phonecallintent;  
import android.content.Intent;  
import android.net.Uri;  
import android.os.Bundle;  
import android.view.View;  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 }  
 public void makePhoneCall(View view) {  
 *// Replace "phoneNumber" with the actual phone number you want to call.* String phoneNumber = "tel:+1234567890";  
 Intent callIntent = new Intent(Intent.*ACTION\_DIAL*, Uri.*parse*(phoneNumber));  
 startActivity(callIntent);  
 }  
 }