Q5)Create an application to demonstrate few key features of the Android framework. In particular, the application demonstrates how to send SMS text messages. a. How to send SMS text messages. b. How to dial using an in-built dialer c. How to send email

**activitymain.xml:**

<?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="com.example.smsemailphone.MainActivity">  
 <TextView  
 android:id="@+id/textView1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Sending SMS Example"  
 android:layout\_alignParentTop="true"  
 android:layout\_centerHorizontal="true"  
 android:textSize="30dp" />  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Send Sms"  
 android:id="@+id/btnSendSMS"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="48dp" />  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Send Email"  
 android:id="@+id/btnSendEmail"  
 android:layout\_below="@+id/btnSendSMS"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="48dp" />  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Phone"  
 android:id="@+id/btnDialPhone"  
 android:layout\_marginTop="54dp" />  
</RelativeLayout>

**MainActivity:**

package com.example.smsemailphone;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent;  
import android.net.Uri;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.Toast;  
  
public class MainActivity extends AppCompatActivity {  
 private static final int *MY\_PERMISSIONS\_REQUEST\_SEND\_SMS* = 0;  
 Button sendBtn;  
 Button btnSendEmail;  
 Button btnPhone;  
 String phoneNo;  
 String message;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 sendBtn = (Button) findViewById(R.id.*btnSendSMS*);  
 btnSendEmail = (Button) findViewById(R.id.*btnSendEmail*);  
 btnPhone = (Button) findViewById(R.id.*btnDialPhone*);  
 sendBtn.setOnClickListener(new View.OnClickListener() {  
 public void onClick(View view) {  
 sendSMSMessage();  
  
 }  
});  
 btnSendEmail.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 sendEmail();  
 }  
 });  
 btnPhone.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 PhoneDial();  
 }  
 });  
 }  
 protected void sendEmail() {  
 Intent emailIntent = new Intent(Intent.*ACTION\_SEND*);  
 emailIntent.setData(Uri.*parse*("mailto:"));  
 emailIntent.setType("text/plain");  
 emailIntent.putExtra(Intent.*EXTRA\_EMAIL*, new String[]{"ba.mohan@gmail.com"});  
 emailIntent.putExtra(Intent.*EXTRA\_SUBJECT*, "subject Test");  
 emailIntent.putExtra(Intent.*EXTRA\_TEXT*, "Message Body Test");  
 startActivity(emailIntent);  
 }  
 protected void sendSMSMessage() {  
 Intent sendIntent = new Intent(Intent.*ACTION\_VIEW*);  
 sendIntent.putExtra("sms\_body", "default content");  
 sendIntent.setType("vnd.android-dir/mms-sms");  
 startActivity(sendIntent);  
 Toast.*makeText*(getApplicationContext(), "SMS sent.",  
 Toast.*LENGTH\_LONG*).show();  
 }  
 protected void PhoneDial() {  
 Intent intent = new Intent(Intent.*ACTION\_DIAL*);  
 startActivity(intent); }  
}

Output:

