Practical 29

1. Write a Program to send message(SMS).

Xml Code :

```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"
    tools:context=".MainActivity"
    android:orientation="vertical">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textColor="@color/black"
        android:layout_gravity="center"
        android:textSize="30dp"
        android:layout_marginTop="25dp"
        android:text="Program to Send an SMS"/>
    <EditText
        android:layout_width="match_parent"
        android:layout_height="55dp"
        android:layout_marginLeft="20dp"
        android:layout_marginRight="20dp"
        android:layout_marginTop="70dp"
        android:background="@drawable/cstm"
        android:textColor="@color/black"
        android:textSize="23dp"
        android:hint="Enter mobile Number"
        android:id="@+id/txt1"/>
    <EditText
        android:layout_width="match_parent"
        android:layout_height="125dp"
        android:layout_marginLeft="20dp"
        android:layout_marginRight="20dp"
        android:layout_marginTop="30dp"
        android:background="@drawable/cstm"
        android:textColor="@color/black"
        android:textSize="25dp"
        android:gravity="start"
        android:hint="Type Message"
        android:id="@+id/txt2"/>
    <Button
```

```
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Send SMS"
    android:textSize="30dp"
    android:layout_gravity="center"
    android:layout_marginTop="30dp"
    android:backgroundTint="@color/black"
    android:id="@+id/btn"
    />
</LinearLayout>
```

Java Code :

```java
package com.example.exp29;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.core.content.ContextCompat;
import android.Manifest;
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 mob,msg;
    Button sms;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        mob = (EditText) findViewById(R.id.txt1);
        msg = (EditText) findViewById(R.id.txt2);
        sms = (Button) findViewById(R.id.btn);
        sms.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                if(ContextCompat.checkSelfPermission(MainActivity.this, Manifest.permission.SEND_SMS)
                == PackageManager.PERMISSION_GRANTED){
                    sendsms();
                }
                else{
                    ActivityCompat.requestPermissions(MainActivity.this,new
                    String[]{Manifest.permission.SEND_SMS},100);
                }
            }
        });
    }
    public void sendsms(){
        String mobno = mob.getText().toString().trim();
        String mssg = msg.getText().toString().trim();
```

```java
        if(mobno.equals("")){
           Toast.makeText(getApplicationContext(), "Please enter mobile number",
           Toast.LENGTH_SHORT).show();
        }
        else if(mssg.equals("")){
           Toast.makeText(getApplicationContext(), "Please enter Message",
           Toast.LENGTH_SHORT).show();
        }
        else if(mobno.length() != 10){
           Toast.makeText(getApplicationContext(), "Mobile number should be of 10 digits",
           Toast.LENGTH_SHORT).show();
        }
        else {
           SmsManager smsManager = SmsManager.getDefault();
           smsManager.sendTextMessage(mobno,null,mssg,null,null);
           Toast.makeText(getApplicationContext(), "SMS Sent Sucessfully",
           Toast.LENGTH_SHORT).show();
        }
   }
   @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(getApplicationContext(),"Permission Denied!!",Toast.LENGTH_LONG).show();
      }
   }
}
```
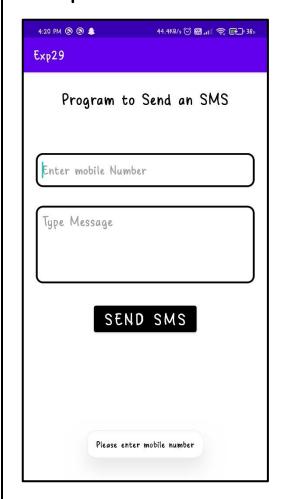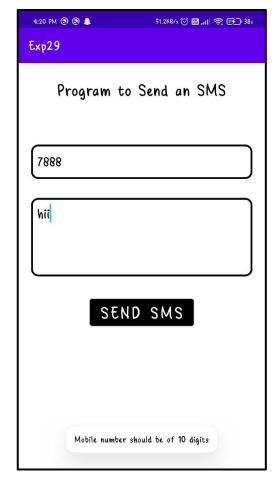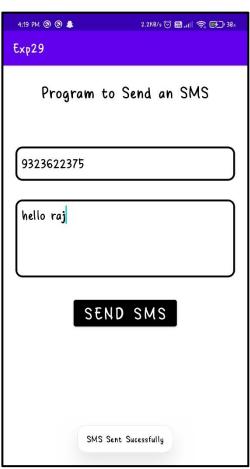
2. Write a Program to demonstrate fragments.

Activity_Main.xml :

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
android:orientation="horizontal"
android:layout_width="match_parent"
android:layout_height="match_parent">
<fragment android:name="com.example.myapplication.Main6Activity"
android:id="@+id/list"
android:layout_weight="2"
android:layout_width="0dp"
android:layout_height="match_parent" />
<fragment android:name="com.example.myapplication.Main7Activity"
android:id="@+id/viewer"
android:layout_weight="2"
android:layout_width="0dp"
android:layout_height="match_parent" />
</LinearLayout>
```

Main_Activity.java :

```java
package com.example.myapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
public class Main5Activity extends AppCompatActivity {
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main5);}}
```

Activity_main2.xml :

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
android:orientation="vertical"
android:layout_width="fill_parent"
android:layout_height="fill_parent"
android:background="#000000">
<TextView
android:layout_width="fill_parent"
android:layout_height="wrap_content"
android:text="Hello Everyone ! Myself    Aashutosh"
android:textColor="#FFFFFF"
android:textSize="30dp" />
</LinearLayout>
```

Main2Activity.java :

```java
package com.example.myapplication;
import androidx.appcompat.app.AppCompatActivity;
import androidx.fragment.app.Fragment;
import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
public class Main6Activity extends Fragment {
@Override
public void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
}
public View onCreateView(LayoutInflater inflater, ViewGroup container,
Bundle savedInstanceState) {
return inflater.inflate(R.layout.activity_main6,container, false);}}
```

Activity_main3.xml :

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
android:orientation="horizontal"
android:layout_width="fill_parent"
android:layout_height="fill_parent"
android:background="#666666">
<TextView
android:layout_width="fill_parent"
android:layout_height="wrap_content"
android:text="Welcome"
android:textColor="#000000"
android:textSize="30dp" />
</LinearLayout>
```

Main3Activity.java :

```java
package com.example.myapplication;
import androidx.appcompat.app.AppCompatActivity;
import androidx.fragment.app.Fragment;
import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
public class Main7Activity extends Fragment {
@Override
public void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);}
public View onCreateView(LayoutInflater inflater, ViewGroup container,
Bundle savedInstanceState) {
return inflater.inflate(R.layout.activity_main7, container, false);}}
```