1. **Widget**

**Main.java**

package com.example.linear;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.annotation.SuppressLint;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.TextView;  
import android.widget.Toast;  
  
public class MainActivity extends AppCompatActivity {  
  
 @SuppressLint("MissingInflatedId")  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 Button add;  
 EditText n1,n2;  
  
 n1 = findViewById(R.id.*n1*);  
 n2 = findViewById(R.id.*n2*);  
  
 add = findViewById(R.id.*add*);  
  
 add.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
  
 String no1 = n1.getText().toString();  
 String no2 = n2.getText().toString();  
  
 int v1 = Integer.*parseInt*(no1);  
 int v2 = Integer.*parseInt*(no2);  
 int sum = v1+v2;  
  
 StringBuilder result = new StringBuilder();  
  
 result.append("sum is ").append(String.*valueOf*(sum));  
  
 Toast.*makeText*(getApplicationContext(),result,Toast.*LENGTH\_LONG*).show();  
 }  
 });  
 }  
}

**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"  
 android:orientation="vertical"  
 tools:context=".MainActivity">  
  
 <EditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="96dp"  
 android:background="@android:color/holo\_blue\_bright"  
 android:gravity="center"  
 android:text="Widget"  
 android:textColor="@color/white"  
 android:textSize="30dp"  
 android:textStyle="bold" />  
  
 <EditText  
 android:layout\_width="290dp"  
 android:layout\_height="96dp"  
 android:id="@+id/n1"  
 android:layout\_marginTop="50dp"  
 android:layout\_marginLeft="50dp"  
 android:gravity="center"  
 android:hint="1st number"  
 android:textSize="20dp" />  
  
 <EditText  
 android:layout\_width="290dp"  
 android:id="@+id/n2"  
 android:layout\_height="96dp"  
 android:layout\_marginLeft="50dp"  
 android:layout\_marginTop="10dp"  
 android:gravity="center"  
 android:hint="2nd number"  
 android:textSize="20dp" />  
  
 <Button  
 android:layout\_width="wrap\_content"  
 android:id="@+id/add"  
 android:layout\_height="wrap\_content"  
 android:text="Add"  
 android:layout\_marginTop="10dp"  
 android:gravity="center"  
 android:layout\_gravity="center"/>  
  
  
</LinearLayout>

1. **Intent**

**Explicit Intent:**

**Xml1**

*<?*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">  
  
 <TextView  
 android:layout\_width="242dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentStart="true"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginStart="92dp"  
 android:layout\_marginEnd="77dp"  
 android:text="Activity 1"  
 android:layout\_marginBottom="566dp" />  
  
 <Button  
 android:layout\_width="wrap\_content"  
 android:id="@+id/b"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="162dp"  
 android:layout\_marginBottom="358dp"  
 android:text="Click" />  
  
</RelativeLayout>

**Xml2**

*<?*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=".MainActivity2">  
  
  
 <TextView  
 android:layout\_width="242dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentStart="true"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginStart="92dp"  
 android:id="@+id/url"  
 android:text="activity 2"  
 android:layout\_marginEnd="77dp"  
 android:layout\_marginBottom="566dp"  
 android:hint="url" />  
  
 <Button  
 android:layout\_width="wrap\_content"  
 android:id="@+id/b2"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="162dp"  
 android:layout\_marginBottom="358dp"  
 android:text="Click" />  
  
</RelativeLayout>

**Main.java1**

package com.example.intent;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.annotation.SuppressLint;  
import android.content.Intent;  
import android.net.Uri;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
  
public class MainActivity extends AppCompatActivity {  
 EditText url;  
 Button b;  
  
 @SuppressLint("MissingInflatedId")  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 url = findViewById(R.id.*url*);  
 b = findViewById(R.id.*b*);  
  
 b.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String u = url.getText().toString();  
*// Intent i = new Intent(Intent.ACTION\_VIEW, Uri.parse(u));* Intent i = new Intent(MainActivity.this,MainActivity2.class);  
 startActivity(i);  
  
 }  
 });  
  
  
 }  
}

**Main.java2**

package com.example.intent;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.annotation.SuppressLint;  
import android.content.Intent;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
  
public class MainActivity2 extends AppCompatActivity {  
  
 Button b;  
  
 @SuppressLint("MissingInflatedId")  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main2*);  
  
 b = findViewById(R.id.*b2*);  
  
 b.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
  
 Intent i = new Intent(MainActivity2.this,MainActivity.class);  
 startActivity(i);  
 }  
 });  
 }  
}

**Implicit Intent**

**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=".MainActivity">  
  
 <EditText  
 android:id="@+id/e"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentStart="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginStart="1dp"  
 android:layout\_marginBottom="563dp"  
 android:hint="url"  
 android:textSize="30dp" />  
  
 <Button  
 android:layout\_width="wrap\_content"  
 android:id="@+id/b"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="162dp"  
 android:layout\_marginBottom="358dp"  
 android:text="Click" />  
  
</RelativeLayout>

**Main.java**

package com.example.myapplicationimp;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.annotation.SuppressLint;  
import android.content.Intent;  
import android.net.Uri;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
  
public class MainActivity extends AppCompatActivity {  
  
 Button b;  
 EditText e;  
  
 @SuppressLint("MissingInflatedId")  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 e = findViewById(R.id.*e*);  
 b = findViewById(R.id.*b*);  
  
 b.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 String url = e.getText().toString().trim();  
 Intent i = new Intent(Intent.*ACTION\_VIEW*, Uri.*parse*(url));  
 startActivity(i);  
 }  
 });  
  
 }  
}

1. **Fragments**

**mainXml**

*<?*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/button1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="158dp"  
 android:layout\_marginBottom="585dp"  
 android:text="Frgment1" />  
  
 <Button  
 android:id="@+id/button2"  
 android:layout\_width="161dp"  
 android:layout\_height="68dp"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="145dp"  
 android:layout\_marginBottom="385dp"  
 android:text="Fragment2"  
 tools:ignore="HardcodedText" />  
  
 <FrameLayout  
 android:layout\_width="369dp"  
 android:layout\_height="216dp"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="26dp"  
 android:id="@+id/fragment\_1"  
 android:layout\_marginBottom="110dp">  
 </FrameLayout>  
  
</RelativeLayout>

**Main.java**

package com.example.frgment;  
  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.fragment.app.Fragment;  
import androidx.fragment.app.FragmentManager;  
import androidx.fragment.app.FragmentTransaction;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
  
public class MainActivity extends AppCompatActivity {  
  
 Button btn1, btn2;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 btn1 = findViewById(R.id.*button1*);  
 btn2 = findViewById(R.id.*button2*);  
  
 btn1.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 repalceFragment(new Fragment1());  
 }  
 });  
  
 btn2.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View v) {  
 repalceFragment(new Fragment2());  
 }  
 });  
  
 }  
  
 private void repalceFragment(Fragment fragment){  
 FragmentManager fragmentManager = getSupportFragmentManager();  
 FragmentTransaction fragmentTransaction= fragmentManager.beginTransaction();  
 fragmentTransaction.replace(R.id.*fragment\_1*,fragment);  
 fragmentTransaction.commit();  
 }  
}