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**SE(6A) | 19F-0916**

Software for Mobile Devices

Assignment 5: Services and Fragments

**Services and Fragments**

**First Activity Java Code:**

**package** com.example.lab\_work\_smd\_section\_bsse\_6a.Fragment\_Service\_Assignment;  
  
**import** androidx.annotation.Nullable;  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.app.Service;  
**import** android.content.Intent;  
**import** android.graphics.Bitmap;  
**import** android.os.Bundle;  
**import** android.os.IBinder;  
**import** android.util.Log;  
**import** android.view.View;  
**import** android.widget.EditText;  
  
**import** com.example.lab\_work\_smd\_section\_bsse\_6a.AsyncTaskExample.AsyncTaskExampleOne;  
**import** com.example.lab\_work\_smd\_section\_bsse\_6a.R;  
  
**import** java.util.concurrent.ExecutionException;  
  
**public class** FirstActivityFragmentService **extends** AppCompatActivity {  
  
 EditText **link1**,**link2**,**link3**,**link4**,**link5**,**link6**;  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_first\_fragment\_service***);  
 **link1** = findViewById(R.id.***txtlink1***);  
 **link2** = findViewById(R.id.***txtlink2***);  
 **link3** = findViewById(R.id.***txtlink3***);  
 **link4** = findViewById(R.id.***txtlink4***);  
 **link5** = findViewById(R.id.***txtlink5***);  
 **link6** = findViewById(R.id.***txtlink6***);  
 }  
  
 **public void** Download\_All\_Images(View view) {  
 Intent intent = **new** Intent (**this**,ServiceForImages.**class**);  
 intent.putExtra(**"K1"**,**link1**.getText().toString());  
 intent.putExtra(**"K2"**,**link2**.getText().toString());  
 intent.putExtra(**"K3"**,**link3**.getText().toString());  
 intent.putExtra(**"K4"**,**link4**.getText().toString());  
 intent.putExtra(**"K5"**,**link5**.getText().toString());  
 intent.putExtra(**"K6"**,**link6**.getText().toString());  
 startService(intent);  
 }  
  
}

**First Activity XML Code:**

*<?***xml version="1.0" encoding="utf-8"***?>*<**androidx.constraintlayout.widget.ConstraintLayout 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:background="#FFC107"  
 tools:context=".Fragment\_Service\_Assignment.FirstActivityFragmentService"**>  
  
 <**EditText  
 android:id="@+id/txtlink6"  
 android:layout\_width="259dp"  
 android:layout\_height="53dp"  
 android:layout\_marginTop="20dp"  
 android:autofillHints=""  
 android:ems="10"  
 android:hint="@string/enter\_link\_6"  
 android:inputType="textPersonName"  
 android:textAlignment="center"  
 android:textColorHint="#546E7A"  
 android:textSize="20sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.186"  
 app:layout\_constraintStart\_toEndOf="@+id/textView14"  
 app:layout\_constraintTop\_toBottomOf="@+id/txtlink5"** />  
  
 <**EditText  
 android:id="@+id/txtlink5"  
 android:layout\_width="259dp"  
 android:layout\_height="53dp"  
 android:layout\_marginTop="20dp"  
 android:autofillHints=""  
 android:ems="10"  
 android:hint="@string/enter\_link\_5"  
 android:inputType="textPersonName"  
 android:textAlignment="center"  
 android:textColorHint="#546E7A"  
 android:textSize="20sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.186"  
 app:layout\_constraintStart\_toEndOf="@+id/textView13"  
 app:layout\_constraintTop\_toBottomOf="@+id/txtlink4"** />  
  
 <**TextView  
 android:id="@+id/textView13"  
 android:layout\_width="82dp"  
 android:layout\_height="38dp"  
 android:layout\_marginTop="32dp"  
 android:text="@string/link\_5"  
 android:textAlignment="center"  
 android:textSize="20sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.082"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView12"** />  
  
 <**EditText  
 android:id="@+id/txtlink4"  
 android:layout\_width="259dp"  
 android:layout\_height="53dp"  
 android:layout\_marginTop="20dp"  
 android:autofillHints=""  
 android:ems="10"  
 android:hint="@string/enter\_link\_4"  
 android:inputType="textPersonName"  
 android:textAlignment="center"  
 android:textColorHint="#546E7A"  
 android:textSize="20sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.186"  
 app:layout\_constraintStart\_toEndOf="@+id/textView12"  
 app:layout\_constraintTop\_toBottomOf="@+id/txtlink3"** />  
  
 <**TextView  
 android:id="@+id/textView12"  
 android:layout\_width="82dp"  
 android:layout\_height="38dp"  
 android:layout\_marginTop="36dp"  
 android:text="@string/link\_4"  
 android:textAlignment="center"  
 android:textSize="20sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.082"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView11"** />  
  
 <**EditText  
 android:id="@+id/txtlink3"  
 android:layout\_width="259dp"  
 android:layout\_height="53dp"  
 android:layout\_marginTop="20dp"  
 android:autofillHints=""  
 android:ems="10"  
 android:hint="@string/enter\_link\_3"  
 android:inputType="textPersonName"  
 android:textAlignment="center"  
 android:textColorHint="#546E7A"  
 android:textSize="20sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.186"  
 app:layout\_constraintStart\_toEndOf="@+id/textView11"  
 app:layout\_constraintTop\_toBottomOf="@+id/txtlink2"** />  
  
 <**TextView  
 android:id="@+id/textView11"  
 android:layout\_width="82dp"  
 android:layout\_height="38dp"  
 android:layout\_marginTop="36dp"  
 android:text="@string/link\_3"  
 android:textAlignment="center"  
 android:textSize="20sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.082"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView10"** />  
  
 <**EditText  
 android:id="@+id/txtlink2"  
 android:layout\_width="259dp"  
 android:layout\_height="53dp"  
 android:layout\_marginTop="20dp"  
 android:autofillHints=""  
 android:ems="10"  
 android:hint="@string/enter\_link\_2"  
 android:inputType="textPersonName"  
 android:textAlignment="center"  
 android:textColorHint="#546E7A"  
 android:textSize="20sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.186"  
 app:layout\_constraintStart\_toEndOf="@+id/textView10"  
 app:layout\_constraintTop\_toBottomOf="@+id/txtlink1"** />  
  
 <**TextView  
 android:id="@+id/textView10"  
 android:layout\_width="82dp"  
 android:layout\_height="38dp"  
 android:layout\_marginTop="32dp"  
 android:text="@string/link\_2"  
 android:textAlignment="center"  
 android:textSize="20sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.082"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView9"** />  
  
 <**EditText  
 android:id="@+id/txtlink1"  
 android:layout\_width="259dp"  
 android:layout\_height="53dp"  
 android:layout\_marginTop="88dp"  
 android:autofillHints=""  
 android:ems="10"  
 android:hint="@string/enter\_link\_1"  
 android:inputType="textPersonName"  
 android:textAlignment="center"  
 android:textColorHint="#546E7A"  
 android:textSize="20sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.186"  
 app:layout\_constraintStart\_toEndOf="@+id/textView9"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
 <**TextView  
 android:id="@+id/textView9"  
 android:layout\_width="82dp"  
 android:layout\_height="38dp"  
 android:layout\_marginTop="100dp"  
 android:text="@string/link\_1"  
 android:textAlignment="center"  
 android:textSize="20sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.082"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
 <**TextView  
 android:id="@+id/textView14"  
 android:layout\_width="82dp"  
 android:layout\_height="38dp"  
 android:layout\_marginTop="36dp"  
 android:text="@string/link\_6"  
 android:textAlignment="center"  
 android:textSize="20sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.082"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView13"** />  
  
 <**Button  
 android:id="@+id/button19"  
 android:layout\_width="227dp"  
 android:layout\_height="64dp"  
 android:layout\_marginTop="32dp"  
 android:backgroundTint="#F13C02"  
 android:onClick="Download\_All\_Images"  
 android:text="@string/download\_images"  
 android:textColor="#000004"  
 android:textSize="20sp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/txtlink6"** />  
  
</**androidx.constraintlayout.widget.ConstraintLayout**>

**XML Design for First Activity:**

**Chart

Description automatically generated**

**Running First Activity:**

**Graphical user interface, application

Description automatically generated**

**Services Class Code:**

**package** com.example.lab\_work\_smd\_section\_bsse\_6a.Fragment\_Service\_Assignment;  
  
**import** android.app.Service;  
**import** android.content.Intent;  
**import** android.graphics.Bitmap;  
**import** android.graphics.BitmapFactory;  
**import** android.os.IBinder;  
**import** android.util.Log;  
  
**import** androidx.annotation.Nullable;  
  
**import** java.io.IOException;  
**import** java.io.InputStream;  
**import** java.net.HttpURLConnection;  
**import** java.net.MalformedURLException;  
**import** java.net.URL;  
  
**public class** ServiceForImages **extends** Service {  
 @Nullable  
 @Override  
 **public** IBinder onBind(Intent intent) {  
 **return null**;  
 }  
  
 @Override  
 **public int** onStartCommand(Intent intent, **int** flags, **int** startId) {  
 **try** {  
 URL url1 = **new** URL(intent.getStringExtra(**"K1"**));  
 URL url2 = **new** URL(intent.getStringExtra(**"K2"**));  
 URL url3 = **new** URL(intent.getStringExtra(**"K3"**));  
 URL url4 = **new** URL(intent.getStringExtra(**"K4"**));  
 URL url5 = **new** URL(intent.getStringExtra(**"K5"**));  
 URL url6 = **new** URL(intent.getStringExtra(**"K6"**));  
 *//String Url = String.valueOf(url1);* **try** {  
 HttpURLConnection connection1 = (HttpURLConnection) url1.openConnection();  
 HttpURLConnection connection2 = (HttpURLConnection) url2.openConnection();  
 HttpURLConnection connection3 = (HttpURLConnection) url3.openConnection();  
 HttpURLConnection connection4 = (HttpURLConnection) url4.openConnection();  
 HttpURLConnection connection5 = (HttpURLConnection) url5.openConnection();  
 HttpURLConnection connection6 = (HttpURLConnection) url6.openConnection();  
  
 connection1.connect();  
 connection2.connect();  
 connection3.connect();  
 connection4.connect();  
 connection5.connect();  
 connection6.connect();  
  
 *// InputStream inputStream = new java.net.URL(Url).openStream();* InputStream inputStream1 = connection1.getInputStream();  
 InputStream inputStream2 = connection2.getInputStream();  
 InputStream inputStream3 = connection3.getInputStream();  
 InputStream inputStream4 = connection4.getInputStream();  
 InputStream inputStream5 = connection5.getInputStream();  
 InputStream inputStream6 = connection6.getInputStream();  
  
 String[] images = {String.*valueOf*(BitmapFactory.*decodeStream*(inputStream1)),String.*valueOf*(BitmapFactory.*decodeStream*(inputStream2)),  
 String.*valueOf*(BitmapFactory.*decodeStream*(inputStream3)),String.*valueOf*(BitmapFactory.*decodeStream*(inputStream4)),  
 String.*valueOf*(BitmapFactory.*decodeStream*(inputStream5)),String.*valueOf*(BitmapFactory.*decodeStream*(inputStream6))};  
  
 *// int pic1 = Integer.parseInt(BitmapFactory.decodeStream(inputStream1).toString());  
 //int pic2 = BitmapFactory.decodeStream(inputStream2);* Intent intentSecond = **new** Intent(**this**,SecondActivityFragmentService.**class**);  
 intentSecond.putExtra(**"k1"**,images);  
 startActivity(intentSecond);  
  
 Log.*d*(**"TAG"**,**"Service in Progress"**);  
 } **catch** (IOException e) {  
 e.printStackTrace();  
 }  
  
 } **catch** (MalformedURLException e) {  
 e.printStackTrace();  
 }  
 **return *START\_STICKY***;  
 }  
}

**Second Activity Java Code:**

**package** com.example.lab\_work\_smd\_section\_bsse\_6a.Fragment\_Service\_Assignment;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.content.Intent;  
**import** android.os.Bundle;  
  
**import** com.example.lab\_work\_smd\_section\_bsse\_6a.R;  
  
**public class** SecondActivityFragmentService **extends** AppCompatActivity {  
  
 FragmentClass1 **fragmentClass1**;  
 FragmentClass2 **fragmentClass2**;  
 FragmentClass3 **fragmentClass3**;  
 FragmentClass4 **fragmentClass4**;  
 FragmentClass5 **fragmentClass5**;  
 FragmentClass6 **fragmentClass6**;  
 String[] **images**;  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_second\_fragment\_service***);  
 Intent intent = getIntent();  
 **images** = intent.getStringArrayExtra(**"k1"**);  
  
 **fragmentClass1** = **new** FragmentClass1(**this**);  
 **fragmentClass1** = (FragmentClass1) getSupportFragmentManager().findFragmentById(R.id.***imgfrag1***);  
  
 **fragmentClass2** = **new** FragmentClass2(**this**);  
 **fragmentClass2** = (FragmentClass2) getSupportFragmentManager().findFragmentById(R.id.***imgfrag2***);  
  
 **fragmentClass3** = **new** FragmentClass3(**this**);  
 **fragmentClass3** = (FragmentClass3) getSupportFragmentManager().findFragmentById(R.id.***imgfrag3***);  
  
 **fragmentClass4** = **new** FragmentClass4(**this**);  
 **fragmentClass4** = (FragmentClass4) getSupportFragmentManager().findFragmentById(R.id.***imgfrag4***);  
  
 **fragmentClass5** = **new** FragmentClass5(**this**);  
 **fragmentClass5** = (FragmentClass5) getSupportFragmentManager().findFragmentById(R.id.***imgfrag5***);  
  
 **fragmentClass6** = **new** FragmentClass6(**this**);  
 **fragmentClass6** = (FragmentClass6) getSupportFragmentManager().findFragmentById(R.id.***imgfrag6***);  
  
 }  
  
 **public void** setImages1(){  
 **fragmentClass1**.setImage(**images**[0]);  
 }  
  
 **public void** setImages2(){  
 **fragmentClass1**.setImage(**images**[1]);  
 }  
  
 **public void** setImages3(){  
 **fragmentClass1**.setImage(**images**[2]);  
 }  
  
 **public void** setImages4(){  
 **fragmentClass1**.setImage(**images**[3]);  
 }  
  
 **public void** setImages5(){  
 **fragmentClass1**.setImage(**images**[4]);  
 }  
  
 **public void** setImages6(){  
 **fragmentClass1**.setImage(**images**[5]);  
 }  
}

**Second Activity XML Code:**

*<?***xml version="1.0" encoding="utf-8"***?>*<**androidx.constraintlayout.widget.ConstraintLayout 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:background="#00BCD4"  
 tools:context=".Fragment\_Service\_Assignment.SecondActivityFragmentService"**>  
  
 <**fragment  
 android:id="@+id/imgfrag1"  
 class="com.example.lab\_work\_smd\_section\_bsse\_6a.Fragment\_Service\_Assignment.FragmentClass1"  
 android:layout\_width="142dp"  
 android:layout\_height="129dp"  
 android:layout\_marginTop="116dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.171"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
 <**fragment  
 android:id="@+id/imgfrag2"  
 class="com.example.lab\_work\_smd\_section\_bsse\_6a.Fragment\_Service\_Assignment.FragmentClass1"  
 android:layout\_width="142dp"  
 android:layout\_height="129dp"  
 android:layout\_marginTop="116dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.444"  
 app:layout\_constraintStart\_toEndOf="@+id/imgfrag1"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
 <**fragment  
 android:id="@+id/imgfrag3"  
 class="com.example.lab\_work\_smd\_section\_bsse\_6a.Fragment\_Service\_Assignment.FragmentClass1"  
 android:layout\_width="142dp"  
 android:layout\_height="129dp"  
 android:layout\_marginTop="56dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.171"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/imgfrag1"** />  
  
 <**fragment  
 android:id="@+id/imgfrag4"  
 class="com.example.lab\_work\_smd\_section\_bsse\_6a.Fragment\_Service\_Assignment.FragmentClass1"  
 android:layout\_width="142dp"  
 android:layout\_height="129dp"  
 android:layout\_marginTop="56dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.444"  
 app:layout\_constraintStart\_toEndOf="@+id/imgfrag3"  
 app:layout\_constraintTop\_toBottomOf="@+id/imgfrag2"** />  
  
 <**fragment  
 android:id="@+id/imgfrag5"  
 class="com.example.lab\_work\_smd\_section\_bsse\_6a.Fragment\_Service\_Assignment.FragmentClass1"  
 android:layout\_width="142dp"  
 android:layout\_height="129dp"  
 android:layout\_marginTop="56dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.171"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/imgfrag3"** />  
  
 <**fragment  
 android:id="@+id/imgfrag6"  
 class="com.example.lab\_work\_smd\_section\_bsse\_6a.Fragment\_Service\_Assignment.FragmentClass1"  
 android:layout\_width="142dp"  
 android:layout\_height="129dp"  
 android:layout\_marginTop="56dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.444"  
 app:layout\_constraintStart\_toEndOf="@+id/imgfrag5"  
 app:layout\_constraintTop\_toBottomOf="@+id/imgfrag4"** />  
  
</**androidx.constraintlayout.widget.ConstraintLayout**>

**Running First Activity:**

**XML Design for Second Activity:**

**A picture containing text, businesscard

Description automatically generatedA picture containing shape

Description automatically generated**

**First Fragment Class Code:**

**package** com.example.lab\_work\_smd\_section\_bsse\_6a.Fragment\_Service\_Assignment;  
  
**import** android.app.Activity;  
**import** android.content.Context;  
**import** android.content.Intent;  
**import** android.os.Bundle;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
**import** android.widget.Button;  
**import** android.widget.ImageView;  
  
**import** androidx.annotation.NonNull;  
**import** androidx.annotation.Nullable;  
**import** androidx.fragment.app.Fragment;  
  
**import** com.example.lab\_work\_smd\_section\_bsse\_6a.R;  
  
**public class** FragmentClass1 **extends** Fragment **implements** View.OnClickListener {  
 String **incomingImage**;  
 ImageView **img**;  
 SecondActivityFragmentService **secondActivityFragmentService**;  
 **boolean check** = **false**;  
  
 @Override  
 **public void** onClick(View view) {  
 **if**(**check**==**false**){  
 **secondActivityFragmentService**.setImages1();  
 **check**=**true**;  
 }**else**{  
 **img**.setImageBitmap(**null**);  
 **check**=**false**;  
 }  
   
 }  
  
 **public** FragmentClass1(Activity view) {  
 **secondActivityFragmentService** = (SecondActivityFragmentService) view;  
 }  
  
 **public** FragmentClass1() {  
 }  
  
 @Nullable  
 @Override  
 **public** View onCreateView(@NonNull LayoutInflater inflater, @Nullable ViewGroup container, @Nullable Bundle savedInstanceState) {  
 **return** inflater.inflate(R.layout.***fragmentforimages***,container,**false**);  
 }  
  
 @Override  
 **public void** onActivityCreated(@Nullable Bundle savedInstanceState) {  
 **super**.onActivityCreated(savedInstanceState);  
 **img** = getActivity().findViewById(R.id.***fragmentimg***);  
 }  
  
 **public void** setImage(String image){  
 **img**.setImageResource(Integer.*parseInt*(image));  
 }  
  
}

**Second Fragment Class Code:**

**package** com.example.lab\_work\_smd\_section\_bsse\_6a.Fragment\_Service\_Assignment;  
  
**import** android.app.Activity;  
**import** android.os.Bundle;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
**import** android.widget.ImageView;  
  
**import** androidx.annotation.NonNull;  
**import** androidx.annotation.Nullable;  
**import** androidx.fragment.app.Fragment;  
  
**import** com.example.lab\_work\_smd\_section\_bsse\_6a.R;  
  
**public class** FragmentClass2 **extends** Fragment **implements** View.OnClickListener {  
  
 String **incomingImage**;  
 ImageView **img**;  
 SecondActivityFragmentService **secondActivityFragmentService**;  
 **boolean check** = **false**;  
  
 @Override  
 **public void** onClick(View view) {  
 **if**(**check**==**false**){  
 **secondActivityFragmentService**.setImages2();  
 **check**=**true**;  
 }**else**{  
 **img**.setImageBitmap(**null**);  
 **check**=**false**;  
 }  
 }  
  
 **public** FragmentClass2(Activity view) {  
 **secondActivityFragmentService** = (SecondActivityFragmentService) view;  
 }  
  
 **public** FragmentClass2() {  
 }  
  
 @Nullable  
 @Override  
 **public** View onCreateView(@NonNull LayoutInflater inflater, @Nullable ViewGroup container, @Nullable Bundle savedInstanceState) {  
 **return** inflater.inflate(R.layout.***fragmentforimages***,container,**false**);  
 }  
  
 @Override  
 **public void** onActivityCreated(@Nullable Bundle savedInstanceState) {  
 **super**.onActivityCreated(savedInstanceState);  
 **img** = getActivity().findViewById(R.id.***fragmentimg***);  
 }  
  
 **public void** setImage(String image){  
 **img**.setImageResource(Integer.*parseInt*(image));  
 }  
}

**Third Fragment Class Code:**

**package** com.example.lab\_work\_smd\_section\_bsse\_6a.Fragment\_Service\_Assignment;  
  
**import** android.app.Activity;  
**import** android.os.Bundle;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
**import** android.widget.ImageView;  
  
**import** androidx.annotation.NonNull;  
**import** androidx.annotation.Nullable;  
**import** androidx.fragment.app.Fragment;  
  
**import** com.example.lab\_work\_smd\_section\_bsse\_6a.R;  
  
**public class** FragmentClass3 **extends** Fragment **implements** View.OnClickListener{  
 String **incomingImage**;  
 ImageView **img**;  
 SecondActivityFragmentService **secondActivityFragmentService**;  
 **boolean check** = **false**;  
  
 @Override  
 **public void** onClick(View view) {  
 **if**(**check**==**false**){  
 **secondActivityFragmentService**.setImages3();  
 **check**=**true**;  
 }**else**{  
 **img**.setImageBitmap(**null**);  
 **check**=**false**;  
 }  
 }  
  
 **public** FragmentClass3(Activity view) {  
 **secondActivityFragmentService** = (SecondActivityFragmentService) view;  
 }  
  
 **public** FragmentClass3() {  
 }  
  
 @Nullable  
 @Override  
 **public** View onCreateView(@NonNull LayoutInflater inflater, @Nullable ViewGroup container, @Nullable Bundle savedInstanceState) {  
 **return** inflater.inflate(R.layout.***fragmentforimages***,container,**false**);  
 }  
  
 @Override  
 **public void** onActivityCreated(@Nullable Bundle savedInstanceState) {  
 **super**.onActivityCreated(savedInstanceState);  
 **img** = getActivity().findViewById(R.id.***fragmentimg***);  
 }  
  
 **public void** setImage(String image){  
 **img**.setImageResource(Integer.*parseInt*(image));  
 }  
}

**Forth Fragment Class Code:**

**package** com.example.lab\_work\_smd\_section\_bsse\_6a.Fragment\_Service\_Assignment;  
  
**import** android.app.Activity;  
**import** android.os.Bundle;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
**import** android.widget.ImageView;  
  
**import** androidx.annotation.NonNull;  
**import** androidx.annotation.Nullable;  
**import** androidx.fragment.app.Fragment;  
  
**import** com.example.lab\_work\_smd\_section\_bsse\_6a.R;  
  
**public class** FragmentClass4 **extends** Fragment **implements** View.OnClickListener{  
  
 String **incomingImage**;  
 ImageView **img**;  
 SecondActivityFragmentService **secondActivityFragmentService**;  
 **boolean check** = **false**;  
  
 @Override  
 **public void** onClick(View view) {  
 **if**(**check**==**false**){  
 **secondActivityFragmentService**.setImages4();  
 **check**=**true**;  
 }**else**{  
 **img**.setImageBitmap(**null**);  
 **check**=**false**;  
 }  
 }  
  
 **public** FragmentClass4(Activity view) {  
 **secondActivityFragmentService** = (SecondActivityFragmentService) view;  
 }  
  
 **public** FragmentClass4() {  
 }  
  
 @Nullable  
 @Override  
 **public** View onCreateView(@NonNull LayoutInflater inflater, @Nullable ViewGroup container, @Nullable Bundle savedInstanceState) {  
 **return** inflater.inflate(R.layout.***fragmentforimages***,container,**false**);  
 }  
  
 @Override  
 **public void** onActivityCreated(@Nullable Bundle savedInstanceState) {  
 **super**.onActivityCreated(savedInstanceState);  
 **img** = getActivity().findViewById(R.id.***fragmentimg***);  
 }  
  
 **public void** setImage(String image){  
 **img**.setImageResource(Integer.*parseInt*(image));  
 }  
}

**Fifth Fragment Class Code:**

**package** com.example.lab\_work\_smd\_section\_bsse\_6a.Fragment\_Service\_Assignment;  
  
**import** android.app.Activity;  
**import** android.os.Bundle;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
**import** android.widget.ImageView;  
  
**import** androidx.annotation.NonNull;  
**import** androidx.annotation.Nullable;  
**import** androidx.fragment.app.Fragment;  
  
**import** com.example.lab\_work\_smd\_section\_bsse\_6a.R;  
  
**public class** FragmentClass5 **extends** Fragment **implements** View.OnClickListener{  
 String **incomingImage**;  
 ImageView **img**;  
 SecondActivityFragmentService **secondActivityFragmentService**;  
 **boolean check** = **false**;  
  
 @Override  
 **public void** onClick(View view) {  
 **if**(**check**==**false**){  
 **secondActivityFragmentService**.setImages5();  
 **check**=**true**;  
 }**else**{  
 **img**.setImageBitmap(**null**);  
 **check**=**false**;  
 }  
 }  
  
 **public** FragmentClass5(Activity view) {  
 **secondActivityFragmentService** = (SecondActivityFragmentService) view;  
 }  
  
 **public** FragmentClass5() {  
 }  
  
 @Nullable  
 @Override  
 **public** View onCreateView(@NonNull LayoutInflater inflater, @Nullable ViewGroup container, @Nullable Bundle savedInstanceState) {  
 **return** inflater.inflate(R.layout.***fragmentforimages***,container,**false**);  
 }  
  
 @Override  
 **public void** onActivityCreated(@Nullable Bundle savedInstanceState) {  
 **super**.onActivityCreated(savedInstanceState);  
 **img** = getActivity().findViewById(R.id.***fragmentimg***);  
 }  
  
 **public void** setImage(String image){  
 **img**.setImageResource(Integer.*parseInt*(image));  
 }  
}

**Sixth Fragment Class Code:**

**package** com.example.lab\_work\_smd\_section\_bsse\_6a.Fragment\_Service\_Assignment;  
  
**import** android.app.Activity;  
**import** android.os.Bundle;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
**import** android.widget.ImageView;  
  
**import** androidx.annotation.NonNull;  
**import** androidx.annotation.Nullable;  
**import** androidx.fragment.app.Fragment;  
  
**import** com.example.lab\_work\_smd\_section\_bsse\_6a.R;  
  
**public class** FragmentClass6 **extends** Fragment **implements** View.OnClickListener{  
  
 String **incomingImage**;  
 ImageView **img**;  
 SecondActivityFragmentService **secondActivityFragmentService**;  
 **boolean check** = **false**;  
  
 @Override  
 **public void** onClick(View view) {  
 **if**(**check**==**false**){  
 **secondActivityFragmentService**.setImages6();  
 **check**=**true**;  
 }**else**{  
 **img**.setImageBitmap(**null**);  
 **check**=**false**;  
 }  
 }  
  
 **public** FragmentClass6(Activity view) {  
 **secondActivityFragmentService** = (SecondActivityFragmentService) view;  
 }  
  
 **public** FragmentClass6() {  
 }  
  
 @Nullable  
 @Override  
 **public** View onCreateView(@NonNull LayoutInflater inflater, @Nullable ViewGroup container, @Nullable Bundle savedInstanceState) {  
 **return** inflater.inflate(R.layout.***fragmentforimages***,container,**false**);  
 }  
  
 @Override  
 **public void** onActivityCreated(@Nullable Bundle savedInstanceState) {  
 **super**.onActivityCreated(savedInstanceState);  
 **img** = getActivity().findViewById(R.id.***fragmentimg***);  
 }  
  
 **public void** setImage(String image){  
 **img**.setImageResource(Integer.*parseInt*(image));  
 }  
}

**Fragment XML Resource File:**

*<?***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"** >  
  
 <**ImageView  
 android:id="@+id/fragmentimg"  
 android:layout\_width="0dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_weight="1"  
 tools:ignore="ImageContrastCheck"  
 tools:srcCompat="@tools:sample/avatars"  
 android:contentDescription="@string/todoooooto"** />  
</**LinearLayout**>

**XML Design for Fragment:**

**Graphical user interface, application, Word

Description automatically generated**

**Extras:**

**Permission for the Internet:**

**Text

Description automatically generated**

**Adding Service in Manifest File:**

**Graphical user interface, text, application

Description automatically generated**