Appendix\_C

**Source code**

FirstFragment.java

**package** com.isb.mateoceballos.computerscienceinternalassesment;  
  
**import** android.app.Fragment;  
**import** android.content.Context;  
**import** android.os.Bundle;  
**import** android.support.annotation.Nullable;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
**import** android.widget.TextView;  
**import** android.widget.Button;  
**import** android.widget.Toast;  
  
**import** java.io.BufferedReader;  
**import** java.io.FileInputStream;  
**import** java.io.FileNotFoundException;  
**import** java.io.FileOutputStream;  
**import** java.io.IOException;  
**import** java.io.InputStreamReader;  
*//import android.content.Context;***public class** FirstFragment **extends** Fragment{  
 View myView;  
  
 Button plusbtn1, minusbtn1, plusbtn2, minusbtn2, savebtn, loadbtn;  
 TextView textView1, textView2, displayVals;  
  
 **static int** Item1;  
 **static int** Item2;  
  
 String FileName;  
 String it1;  
 String it2;  
  
 @Nullable  
 @Override  
 **public** View onCreateView(LayoutInflater inflater, ViewGroup container, Bundle savedInstanceState) {  
 myView = inflater.inflate(R.layout.first\_objective, container, **false**);  
  
 plusbtn1 = (Button)myView.findViewById(R.id.plsubtn1);  
 plusbtn2 = (Button)myView.findViewById(R.id.plusbtn1);  
 minusbtn1 = (Button)myView.findViewById(R.id.minusbtn1);  
 minusbtn2 = (Button)myView.findViewById(R.id.minusbtn2);  
  
 savebtn = (Button)myView.findViewById(R.id.savebtn);  
 loadbtn = (Button)myView.findViewById(R.id.loadbtn);  
  
 textView1 = (TextView)myView.findViewById(R.id.textView1);  
 textView2 = (TextView)myView.findViewById(R.id.textView2);  
  
 displayVals = (TextView)myView.findViewById(R.id.displayVals);  
  
  
 Item1 = 0;  
 Item2 = 0;  
  
 plusbtn1.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 Item1++;  
 textView1.setText(Integer.toString(Item1));  
 }  
 });  
 plusbtn2.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 Item2++;  
 textView2.setText(Integer.toString(Item2));  
  
 }  
 });  
 minusbtn1.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 **if**(Item1 <= 0) {  
 Item1 = 0;  
 textView1.setText(Integer.toString(Item1));  
 } **else** {  
 Item1--;  
 textView1.setText(Integer.toString(Item1));  
 }  
 }  
 });  
 minusbtn2.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 **if**(Item2 <= 0) {  
 Item2 = 0;  
 textView2.setText(Integer.toString(Item2));  
 } **else** {  
 Item2--;  
 textView2.setText(Integer.toString(Item2));  
 }  
  
 }  
 });  
 savebtn.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 FileName = **"Obj1vals"**;  
 it1 = textView1.getText().toString()+**"\n"**;  
 it2 = textView2.getText().toString()+**"\n"**;  
 **try** {  
 FileOutputStream fileOutputStream = getActivity().openFileOutput(FileName, Context.MODE\_PRIVATE);;  
 fileOutputStream.write(it1.getBytes());  
 fileOutputStream.write(it2.getBytes());  
 fileOutputStream.close();  
 Toast.makeText(getActivity(), **"Text saved to "** + FileName, Toast.LENGTH\_LONG).show();  
  
 textView1.setText(**"0"**);  
 textView2.setText(**"0"**);  
  
 } **catch** (FileNotFoundException e) {  
 e.printStackTrace();  
 } **catch** (IOException e) {  
 e.printStackTrace();  
 }  
 }  
 });  
  
 loadbtn.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 String Message;  
 **try** {  
 FileInputStream fileInputStream = getActivity().openFileInput(FileName);  
 InputStreamReader inputStreamReader = **new** InputStreamReader(fileInputStream);  
 BufferedReader bufferedReader = **new** BufferedReader(inputStreamReader);  
 StringBuffer stringBuffer = **new** StringBuffer();  
 **while**((Message=bufferedReader.readLine()) !=**null** ){  
 stringBuffer.append(Message + **"\n"**);  
 }  
 displayVals.setText(stringBuffer.toString());  
 } **catch** (FileNotFoundException e) {  
 e.printStackTrace();  
 } **catch** (IOException e) {  
 e.printStackTrace();  
 }  
 }  
 });  
  
  
  
 **return** myView;  
  
  
 }  
}

SecondFragment.java

**package** com.isb.mateoceballos.computerscienceinternalassesment;  
  
**import** android.app.Fragment;  
**import** android.os.Bundle;  
**import** android.support.annotation.Nullable;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
  
*/\*\*  
 \* Created by miguelceballosoldmac on 26/05/16.  
 \*/***public class** SecondFragment **extends** Fragment {  
  
 View myView;  
  
 @Nullable  
 @Override  
 **public** View onCreateView(LayoutInflater inflater, ViewGroup container, Bundle savedInstanceState) {  
 myView = inflater.inflate(R.layout.second\_objective, container, **false**);  
 **return** myView;  
 }  
  
}

ThirdFragment.java

**package** com.isb.mateoceballos.computerscienceinternalassesment;  
  
**import** android.app.Fragment;  
**import** android.os.Bundle;  
**import** android.support.annotation.Nullable;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
  
*/\*\*  
 \* Created by miguelceballosoldmac on 26/05/16.  
 \*/***public class** ThirdFragment **extends** Fragment {  
  
 View myView;  
  
 @Nullable  
 @Override  
 **public** View onCreateView(LayoutInflater inflater, ViewGroup container, Bundle savedInstanceState) {  
 myView = inflater.inflate(R.layout.third\_objective, container, **false**);  
 **return** myView;  
 }  
  
}

FirstObjective.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent" android:layout\_height="match\_parent"**>  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textAppearance="?android:attr/textAppearanceLarge"  
 android:text="ITEM1"  
 android:id="@+id/textView3"  
 android:layout\_marginTop="77dp"  
 android:layout\_marginLeft="26dp"  
 android:layout\_marginStart="26dp"  
 android:layout\_alignParentTop="true"  
 android:layout\_alignParentLeft="true"  
 android:layout\_alignParentStart="true"** />  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textAppearance="?android:attr/textAppearanceLarge"  
 android:text="ITEM2"  
 android:id="@+id/textView4"  
 android:layout\_below="@+id/textView3"  
 android:layout\_alignLeft="@+id/textView3"  
 android:layout\_alignStart="@+id/textView3"  
 android:layout\_marginTop="40dp"** />  
  
 <**Button  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="+"  
 android:id="@+id/plsubtn1"  
 android:layout\_above="@+id/textView4"  
 android:layout\_centerHorizontal="true"** />  
  
 <**Button  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="-"  
 android:id="@+id/minusbtn1"  
 android:layout\_alignTop="@+id/plsubtn1"  
 android:layout\_toRightOf="@+id/plsubtn1"  
 android:layout\_toEndOf="@+id/plsubtn1"** />  
  
 <**Button  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="+"  
 android:id="@+id/plusbtn1"  
 android:layout\_alignBottom="@+id/textView4"  
 android:layout\_centerHorizontal="true"** />  
  
 <**Button  
 style="?android:attr/buttonStyleSmall"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="-"  
 android:id="@+id/minusbtn2"  
 android:layout\_alignTop="@+id/plusbtn1"  
 android:layout\_alignLeft="@+id/minusbtn1"  
 android:layout\_alignStart="@+id/minusbtn1"** />  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textAppearance="?android:attr/textAppearanceLarge"  
 android:text="0"  
 android:id="@+id/textView2"  
 android:layout\_marginRight="38dp"  
 android:layout\_marginEnd="38dp"  
 android:layout\_alignBottom="@+id/minusbtn2"  
 android:layout\_alignParentRight="true"  
 android:layout\_alignParentEnd="true"** />  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textAppearance="?android:attr/textAppearanceLarge"  
 android:text="0"  
 android:id="@+id/textView1"  
 android:layout\_alignBottom="@+id/minusbtn1"  
 android:layout\_alignLeft="@+id/textView2"  
 android:layout\_alignStart="@+id/textView2"** />  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textAppearance="?android:attr/textAppearanceLarge"  
 android:text="Values appear here"  
 android:id="@+id/displayVals"  
 android:layout\_alignParentLeft="true"  
 android:layout\_alignParentStart="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_alignParentRight="true"  
 android:layout\_alignParentEnd="true"  
 android:layout\_below="@+id/savebtn"** />  
  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Save"  
 android:id="@+id/savebtn"  
 android:layout\_alignTop="@+id/loadbtn"  
 android:layout\_toRightOf="@+id/textView4"  
 android:layout\_toEndOf="@+id/textView4"** />  
  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Load"  
 android:id="@+id/loadbtn"  
 android:layout\_centerVertical="true"  
 android:layout\_toRightOf="@+id/savebtn"  
 android:layout\_toEndOf="@+id/savebtn"** />  
  
</**RelativeLayout**>

SecondObjective.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent" android:layout\_height="match\_parent"**>  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textAppearance="?android:attr/textAppearanceLarge"  
 android:text="Second Layout"  
 android:id="@+id/textView2"  
 android:layout\_alignParentTop="true"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="171dp"** />  
</**RelativeLayout**>

ThirdObjective.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent" android:layout\_height="match\_parent"**>  
  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textAppearance="?android:attr/textAppearanceLarge"  
 android:text="Third Layout"  
 android:id="@+id/textView2"  
 android:layout\_alignParentTop="true"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="171dp"** />  
</**RelativeLayout**>

Activity\_main\_drawer.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**menu xmlns:android="http://schemas.android.com/apk/res/android"**>  
  
 <**group android:checkableBehavior="single"**>  
 <**item  
 android:id="@+id/nav\_first\_objective"  
 android:title="First Objective"** />  
 <**item  
 android:id="@+id/nav\_second\_objective"  
 android:title="Second Objective"** />  
 <**item  
 android:id="@+id/nav\_third\_objective"  
 android:title="Third Objective"** />  
 </**group**>  
  
</**menu**>