Fragments

Fragments are the sub-activity that can be reused bay any of the activity

Pre-Requisties:

1. Create three layouts, First is the Main Activity which holds two fragments and other two fragments that services specific purpose
2. Main Layout – students.xml
3. *<?***xml version="1.0" encoding="utf-8"***?>*<**LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
    xmlns:tools="http://schemas.android.com/tools"  
    android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent"  
    android:orientation="horizontal"  
    tools:context=".students.Students"**>  
     
    <**fragment  
    android:layout\_height="match\_parent"  
    android:layout\_width="200px"  
    class="com.demo.students.StudentList"  
    android:id="@+id/fragment"**/>  
    <**fragment  
    android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent"  
    class="com.demo.students.StudentDetails"  
    android:id="@+id/fragment2"**/>  
   </**LinearLayout**>
4. Fragment 1 – Define the layout for Student Information – student\_list.xml
5. *<?***xml version="1.0" encoding="utf-8"***?>*<**LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
    android:orientation="vertical" android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent"**>  
    <**ListView  
    android:layout\_width="match\_parent"  
    android:layout\_height="wrap\_content"  
    android:id="@android:id/list"** />  
   </**LinearLayout**>
6. Fragment – 2 – Defines the layout for student Details – student\_details.xml
7. *<?***xml version="1.0" encoding="utf-8"***?>*<**LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
    android:orientation="vertical" android:layout\_width="match\_parent"  
    android:layout\_height="match\_parent"  
    android:background="#0079D6"**>  
    <**TextView  
    android:layout\_width="wrap\_content"  
    android:layout\_height="wrap\_content"  
    android:textColor="#ffffff"  
    android:layout\_marginTop="200px"  
    android:layout\_marginLeft="10px"  
    android:id="@+id/Name"**/>  
    <**TextView  
    android:layout\_width="wrap\_content"  
    android:layout\_height="wrap\_content"  
    android:layout\_marginLeft="10px"  
    android:textColor="#ffffff"  
    android:id="@+id/Location"**/>  
   </**LinearLayout**>
8. Create three class files to perform the fragment operations
9. Main Class – To Call the functionalities of the Fragments class -
10. Fragment 1 – StudentDetails.java

**import** android.os.Bundle;  
**import** android.support.v4.app.Fragment;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
**import** android.widget.TextView;   
  
**public class** StudentDetails **extends** Fragment {  
 TextView **name**,**location**;  
 @Override  
 **public** View onCreateView(LayoutInflater inflater,  
 ViewGroup container,  
 Bundle savedInstanceState) {  
 View view = inflater.inflate(R.layout.***student\_details***,  
 container, **false**);  
 **name** = (TextView)view.findViewById(R.id.***Name***);  
 **location** = (TextView)view.findViewById(R.id.***Location***);  
 **return** view;  
 }  
 **public void** change(String uname, String ulocation){  
 **name**.setText(uname);  
 **location**.setText(ulocation);  
 }  
}

1. Fragment – 2 : StudentList.java

**import** android.os.Bundle;  
**import** android.support.v4.app.ListFragment;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
**import** android.widget.ArrayAdapter;  
**import** android.widget.ListView;   
  
**public class** StudentList **extends** ListFragment {  
  
 String[] **users** = **new** String[] { **"Suresh"**,**"Ramesh"**,**"Suma"**,**"Praveen"**,**"Kiran"**,**"Madhav"** };  
 String[] **location** = **new** String[]{**"Hubballi"**,**"Dharwad"**,**"Bangalore"**,**"Bangalore"**,**"Belgaum"**,**"Gadag"**};  
 @Override  
 **public** View onCreateView(LayoutInflater inflater,  
 ViewGroup container,  
 Bundle savedInstanceState) {  
 View view =inflater.inflate(R.layout.***student\_list***,  
 container, **false**);  
 ArrayAdapter<String> adapter = **new** ArrayAdapter<String>(  
 getActivity(),  
 android.R.layout.***simple\_list\_item\_1***, **users**);  
 setListAdapter(adapter);  
 **return** view;  
 }  
 @Override  
 **public void** onListItemClick(ListView l,  
 View v,  
 **int** position,  
 **long** id) {  
 StudentDetails txt = (StudentDetails)getFragmentManager().findFragmentById(R.id.***fragment2***);  
 txt.change(**"Name: "**+ **users**[position],**"Location : "**+ **location**[position]);  
 getListView().setSelector(android.R.color.***holo\_blue\_dark***);  
 }  
}

1. Main Class – Students.java

**import** android.os.Bundle;  
**import** android.support.v7.app.AppCompatActivity;  
  
**import** com.demo.R;  
  
**public class** Students **extends** AppCompatActivity{  
  
 **protected void** onCreate(Bundle savedState){  
 **super**.onCreate(savedState);  
 setContentView(R.layout.***students***);  
 }  
}