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Software for Mobile Devices

Assignment 6 Fragment task 2

**Fragment Task 2**

**Main Activity Code:**

**package** com.example.lab\_work\_smd\_section\_bsse\_6a.FragmentAssignment2;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
**import** androidx.fragment.app.FragmentManager;  
**import** androidx.fragment.app.FragmentTransaction;  
**import** androidx.recyclerview.widget.DefaultItemAnimator;  
**import** androidx.recyclerview.widget.LinearLayoutManager;  
**import** androidx.recyclerview.widget.RecyclerView;  
  
**import** android.os.Bundle;  
**import** android.view.View;  
  
**import** com.example.lab\_work\_smd\_section\_bsse\_6a.CardViewExample.MyCardViewAdapter;  
**import** com.example.lab\_work\_smd\_section\_bsse\_6a.CardViewExample.My\_Model\_CardView;  
**import** com.example.lab\_work\_smd\_section\_bsse\_6a.FragmentExample.PM\_Fragment;  
**import** com.example.lab\_work\_smd\_section\_bsse\_6a.R;  
**import** com.example.lab\_work\_smd\_section\_bsse\_6a.databinding.ActivityScrollingBinding;  
  
**import** java.util.ArrayList;  
**import** java.util.List;  
  
**public class** FragmentTask2 **extends** AppCompatActivity {  
  
 **public** List<WeatherClassModel> **modelList**;  
 **public** WeatherCardViewAdapter **adapter**;  
 **public** RecyclerView **recyclerView**;  
 **public** RecyclerView.LayoutManager **layoutManager**;  
  
 **private** ActivityScrollingBinding **binding**;  
  
 FragmentManager **FM**;  
 FragmentTransaction **FT**;  
  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_fragment\_task2***);  
 **FM** = getSupportFragmentManager();  
 **FT** = **FM**.beginTransaction();  
  
 **recyclerView** = findViewById(R.id.***weatherrecyclerview***);  
  
 **modelList** = **new** ArrayList<>();  
 **adapter** = **new** WeatherCardViewAdapter(**this**,**modelList**);  
  
 **layoutManager** = **new** LinearLayoutManager(getApplicationContext());  
 **recyclerView**.setLayoutManager(**layoutManager**);  
 **recyclerView**.setItemAnimator(**new** DefaultItemAnimator());  
  
 **recyclerView**.setAdapter(**adapter**);  
 insert();  
  
  
 }  
  
 **public void** insert(){  
 **int**[] myImages = **new int**[]  
 {  
 R.drawable.***p1***,R.drawable.***p2***,R.drawable.***p3***,R.drawable.***p4*** };  
 WeatherClassModel myModel = **new** WeatherClassModel(**"Lahore"**,100,myImages[0]);  
 **modelList**.add(myModel);  
 myModel = **new** WeatherClassModel(**"Lahore"**,200,myImages[1]);  
 **modelList**.add(myModel);  
 myModel = **new** WeatherClassModel(**"Lahore"**,300,myImages[2]);  
 **modelList**.add(myModel);  
 myModel = **new** WeatherClassModel(**"Lahore"**,400,myImages[3]);  
 **modelList**.add(myModel);  
 }  
  
 **public void** Weather\_Fragment(View view) {  
 WeatherFragment weatherFragment = **new** WeatherFragment();  
 **FT**.replace(android.R.id.***content***,weatherFragment);  
 **FT**.commit();  
  
 }  
  
 **public void** Home\_Fragment(View view) {  
 HomeFragment homeFragment = **new** HomeFragment();  
 **FT**.replace(android.R.id.***content***,homeFragment);  
 **FT**.commit();  
  
 }  
  
 **public void** Empty\_Fragment(View view) {  
 EmptyFragment emptyFragment = **new** EmptyFragment();  
 **FT**.replace(android.R.id.***content***,emptyFragment);  
 **FT**.commit();  
 }  
}

**Main 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"  
 tools:context=".FragmentAssignment2.FragmentTask2"**>  
  
 <**Button  
 android:id="@+id/weatherbutton"  
 android:layout\_width="135dp"  
 android:layout\_height="57dp"  
 android:onClick="Weather\_Fragment"  
 android:text="Weather"  
 android:textSize="19sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.003"  
 app:layout\_constraintStart\_toStartOf="parent"** />  
  
 <**Button  
 android:id="@+id/homebutton"  
 android:layout\_width="135dp"  
 android:onClick="Home\_Fragment"  
 android:layout\_height="57dp"  
 android:text="Home"  
 android:textSize="20sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.014"  
 app:layout\_constraintStart\_toEndOf="@+id/weatherbutton"** />  
  
 <**Button  
 android:id="@+id/emptybutton"  
 android:layout\_width="135dp"  
 android:layout\_height="57dp"  
 android:text="Empty"  
 android:onClick="Empty\_Fragment"  
 android:textSize="20sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="1.0"  
 app:layout\_constraintStart\_toEndOf="@+id/homebutton"** />  
  
 <**fragment  
 android:id="@+id/weatherfragment"  
 class="com.example.lab\_work\_smd\_section\_bsse\_6a.FragmentAssignment2.WeatherFragment"  
 android:layout\_width="410dp"  
 android:layout\_height="672dp"  
 android:layout\_marginTop="4dp"  
 app:layout\_constraintBottom\_toTopOf="@+id/homebutton"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.333"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
 <**fragment  
 android:id="@+id/homefragment"  
 class="com.example.lab\_work\_smd\_section\_bsse\_6a.FragmentAssignment2.HomeFragment"  
 android:layout\_width="410dp"  
 android:layout\_height="672dp"  
 android:layout\_marginTop="4dp"  
 app:layout\_constraintBottom\_toTopOf="@+id/homebutton"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.333"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
 <**fragment  
 android:id="@+id/emptyfragment"  
 android:layout\_width="410dp"  
 class="com.example.lab\_work\_smd\_section\_bsse\_6a.FragmentAssignment2.EmptyFragment"  
 android:layout\_height="672dp"  
 android:layout\_marginTop="4dp"  
 app:layout\_constraintBottom\_toTopOf="@+id/homebutton"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.333"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
</**androidx.constraintlayout.widget.ConstraintLayout**>

**Main Activity Layout with Fragments:**

A picture containing text

Description automatically generated

**Weather Fragment Layout 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:background="#FAF1B8"  
 android:layout\_height="match\_parent"**>  
  
 <**TextView  
 android:id="@+id/textView15"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="76dp"  
 android:text="@string/weather\_fragment"  
 android:textSize="24sp"  
 android:textStyle="bold"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
 <**TextView  
 android:id="@+id/textView16"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="24dp"  
 android:text="@string/recycler\_view"  
 android:textSize="24sp"  
 android:textStyle="bold"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView15"** />  
  
 <**include  
 android:id="@+id/weatherrecyclerview"  
 layout="@layout/content\_scrolling"  
 android:layout\_width="409dp"  
 android:layout\_height="463dp"  
 android:layout\_marginTop="24dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView16"  
 app:layout\_constraintVertical\_bias="0.089"** />  
  
</**androidx.constraintlayout.widget.ConstraintLayout**>

**Weather Fragment Layout XML Design:**

A picture containing text

Description automatically generated

**Weather Fragment Card View XML Code:**

*<?***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:orientation="vertical"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"**>  
  
 <**androidx.cardview.widget.CardView  
 android:layout\_width="match\_parent"  
 android:elevation="10dp"  
 android:layout\_margin="20dp"  
 android:layout\_gravity="center"  
 android:layout\_height="match\_parent"** >  
  
 <**RelativeLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"**>  
  
 <**ImageView  
 android:id="@+id/weatherlogo"  
 android:layout\_width="65dp"  
 android:layout\_height="69dp"  
 android:layout\_alignParentStart="true"  
 android:layout\_alignParentTop="true"  
 android:layout\_marginStart="-2dp"  
 android:layout\_marginTop="2dp"  
 android:clickable="true"  
 android:contentDescription="@string/todoodot"  
 android:scaleType="fitXY"  
 app:srcCompat="@color/black"  
 tools:ignore="ImageContrastCheck"** />  
  
 <**TextView  
 android:id="@+id/weatherlocation"  
 android:layout\_width="308dp"  
 android:layout\_height="49dp"  
 android:layout\_alignParentTop="true"  
 android:layout\_marginStart="-1dp"  
 android:layout\_marginTop="10dp"  
 android:layout\_toEndOf="@+id/weatherlogo"  
 android:paddingLeft="10dp"  
 android:paddingTop="10dp"  
 android:paddingRight="10dp"  
 android:textColor="@color/design\_default\_color\_primary\_dark"  
 android:textSize="17sp"**></**TextView**>  
  
 <**TextView  
 android:id="@+id/weathertemperature"  
 android:layout\_width="50dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentTop="true"  
 android:layout\_alignParentEnd="true"  
 android:layout\_marginStart="255dp"  
 android:layout\_marginTop="17dp"  
 android:layout\_marginEnd="2dp"  
 android:layout\_toEndOf="@+id/weatherlogo"  
 android:paddingLeft="10dp"  
 android:paddingTop="10dp"  
 android:paddingRight="10dp"  
 android:textColor="#D67016"  
 android:textSize="17sp"**></**TextView**>  
  
 </**RelativeLayout**>  
 </**androidx.cardview.widget.CardView**>  
  
</**LinearLayout**>

**Weather Fragment Card View XML Design:**

Graphical user interface, application, Word

Description automatically generated

**Weather Fragment Model Class Code:**

**package** com.example.lab\_work\_smd\_section\_bsse\_6a.FragmentAssignment2;  
  
**public class** WeatherClassModel {  
  
 **public** String **Name**;  
 **public int temperature**;  
 **public int thumbnails**;  
  
 **public** WeatherClassModel() {  
  
 }  
  
 **public** WeatherClassModel(String name, **int** temperature, **int** thumbnails) {  
 **Name** = name;  
 **this**.**temperature** = temperature;  
 **this**.**thumbnails** = thumbnails;  
 }  
  
 **public** String getName() {  
 **return Name**;  
 }  
  
 **public void** setName(String name) {  
 **Name** = name;  
 }  
  
 **public int** getTemperature() {  
 **return temperature**;  
 }  
  
 **public void** setTemperature(**int** temperature) {  
 **this**.**temperature** = temperature;  
 }  
  
 **public int** getThumbnails() {  
 **return thumbnails**;  
 }  
  
 **public void** setThumbnails(**int** thumbnails) {  
 **this**.**thumbnails** = thumbnails;  
 }  
}

**Weather Fragment Adapter Class Code:**

**package** com.example.lab\_work\_smd\_section\_bsse\_6a.FragmentAssignment2;  
  
**import** android.content.Context;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
**import** android.widget.ImageView;  
**import** android.widget.TextView;  
  
**import** androidx.annotation.NonNull;  
**import** androidx.recyclerview.widget.RecyclerView;  
  
**import** com.bumptech.glide.Glide;  
**import** com.example.lab\_work\_smd\_section\_bsse\_6a.R;  
  
**import** java.util.List;  
  
**public class** WeatherCardViewAdapter **extends** RecyclerView.Adapter<WeatherCardViewAdapter.My\_WeatherCardViewAdapter>{  
  
 **public** Context **context**;  
 **public** List<WeatherClassModel> **modelList**;  
  
 **public** WeatherCardViewAdapter(Context context, List<WeatherClassModel> modelList) {  
 **this**.**context** = context;  
 **this**.**modelList** = modelList;  
 }  
  
 @NonNull  
 @Override  
 **public** My\_WeatherCardViewAdapter onCreateViewHolder(@NonNull ViewGroup parent, **int** viewType) {  
 View view = LayoutInflater.*from*(parent.getContext()).inflate(R.layout.***myweathercardviewlayout***,parent,**false**);  
 **return new** My\_WeatherCardViewAdapter(view);  
 }  
  
 @Override  
 **public void** onBindViewHolder(@NonNull My\_WeatherCardViewAdapter holder, **int** position) {  
 WeatherClassModel weatherClassModel = **modelList**.get(position);  
 holder.**title**.setText(weatherClassModel.getName());  
 holder.**count**.setText(String.*valueOf*(weatherClassModel.getTemperature()));  
 Glide.*with*(**context**).load(weatherClassModel.getThumbnails()).into(holder.**thumbnail**);  
  
  
 }  
  
 @Override  
 **public int** getItemCount() {  
 **return modelList**.size();  
 }  
  
 **public class** My\_WeatherCardViewAdapter **extends** RecyclerView.ViewHolder {  
 TextView **title**,**count**;  
 ImageView **thumbnail**;  
 **public** My\_WeatherCardViewAdapter(@NonNull View itemView) {  
 **super**(itemView);  
 **title** = itemView.findViewById(R.id.***weatherlocation***);  
 **count** = itemView.findViewById(R.id.***weathertemperature***);  
 **thumbnail** = itemView.findViewById(R.id.***weatherlogo***);  
 }  
 }  
  
}

**Weather Fragment Code:**

**package** com.example.lab\_work\_smd\_section\_bsse\_6a.FragmentAssignment2;  
  
**import** android.os.Bundle;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
  
**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** WeatherFragment **extends** Fragment {  
 @Nullable  
 @Override  
 **public** View onCreateView(@NonNull LayoutInflater inflater, @Nullable ViewGroup container, @Nullable Bundle savedInstanceState) {  
 **return** inflater.inflate(R.layout.***weatherfragmentlayout***,container,**false**);  
 }  
}

**Home Fragment Layout 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:background="#FAF1B8"  
 android:layout\_height="match\_parent"**>  
  
  
 <**TextView  
 android:id="@+id/textView17"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="68dp"  
 android:text="@string/home\_fragment"  
 android:textSize="24sp"  
 android:textStyle="bold"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.497"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
 <**TextView  
 android:id="@+id/textView18"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="56dp"  
 android:text="@string/my\_name\_m\_abdullah"  
 android:textSize="24sp"  
 android:textStyle="bold"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.497"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/imageView2"** />  
  
 <**TextView  
 android:id="@+id/textView19"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="32dp"  
 android:text="@string/my\_roll\_19f\_0916"  
 android:textSize="24sp"  
 android:textStyle="bold"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView18"** />  
  
 <**ImageView  
 android:id="@+id/imageView2"  
 android:layout\_width="269dp"  
 android:layout\_height="231dp"  
 android:layout\_marginTop="40dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView17"  
 app:srcCompat="@drawable/aa2"  
 android:contentDescription="@string/todonotodo"** />  
</**androidx.constraintlayout.widget.ConstraintLayout**>

**Home Fragment Layout XML Design:**

Graphical user interface, application

Description automatically generated

**Empty Fragment Layout 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:background="#FAF1B8"  
 android:layout\_height="match\_parent"**>  
  
 <**TextView  
 android:id="@+id/textView20"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="112dp"  
 android:text="@string/empty\_fragment"  
 android:textSize="24sp"  
 android:textStyle="bold"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.497"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
  
 <**TextView  
 android:id="@+id/textView21"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="188dp"  
 android:text="@string/bonjour\_i\_m\_empty\_fragment"  
 android:textSize="24sp"  
 android:textStyle="bold"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView20"** />  
</**androidx.constraintlayout.widget.ConstraintLayout**>

**Empty Fragment Layout XML Design:**

Graphical user interface, text, application

Description automatically generated

**Home Fragment Code:**

**package** com.example.lab\_work\_smd\_section\_bsse\_6a.FragmentAssignment2;  
  
**import** android.os.Bundle;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
  
**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** HomeFragment **extends** Fragment {  
  
 @Nullable  
 @Override  
 **public** View onCreateView(@NonNull LayoutInflater inflater, @Nullable ViewGroup container, @Nullable Bundle savedInstanceState) {  
 **return** inflater.inflate(R.layout.***homefragmentlayout***,container,**false**);  
 }  
}

**Empty Fragment Code:**

**package** com.example.lab\_work\_smd\_section\_bsse\_6a.FragmentAssignment2;  
  
**import** android.os.Bundle;  
**import** android.view.LayoutInflater;  
**import** android.view.View;  
**import** android.view.ViewGroup;  
  
**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** EmptyFragment **extends** Fragment {  
  
 @Nullable  
 @Override  
 **public** View onCreateView(@NonNull LayoutInflater inflater, @Nullable ViewGroup container, @Nullable Bundle savedInstanceState) {  
 **return** inflater.inflate(R.layout.***emptyfragmentlayout***,container,**false**);  
 }  
}