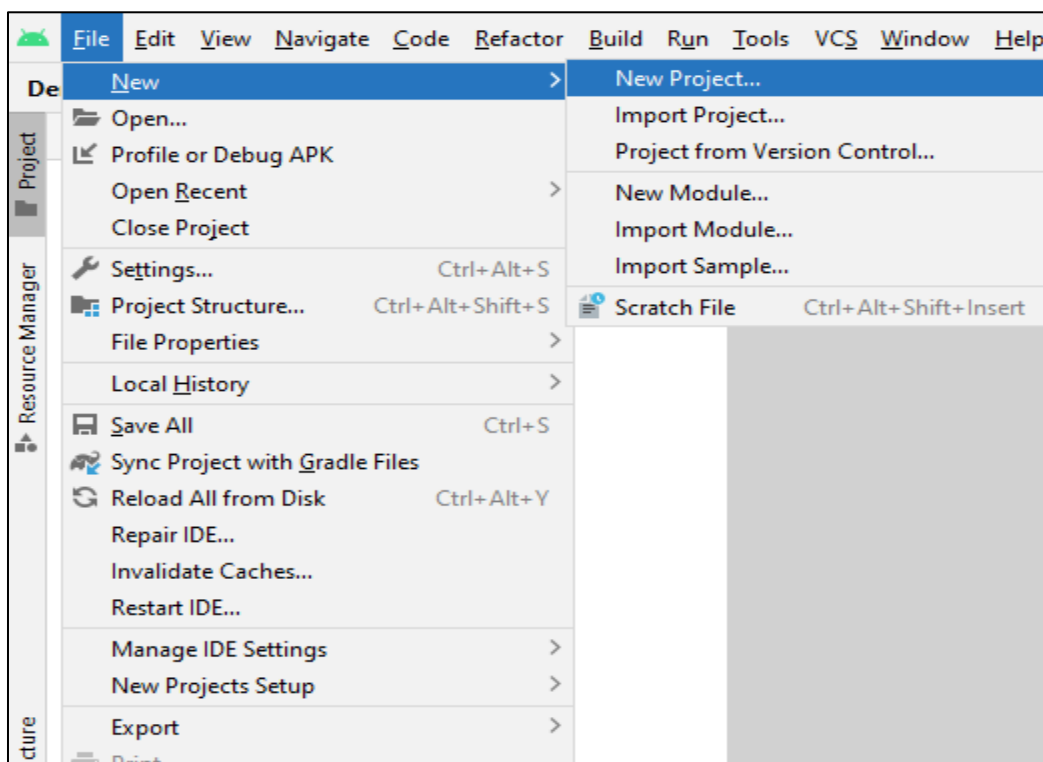# Extra Ex 4: Working with Frame Layout

Introduction
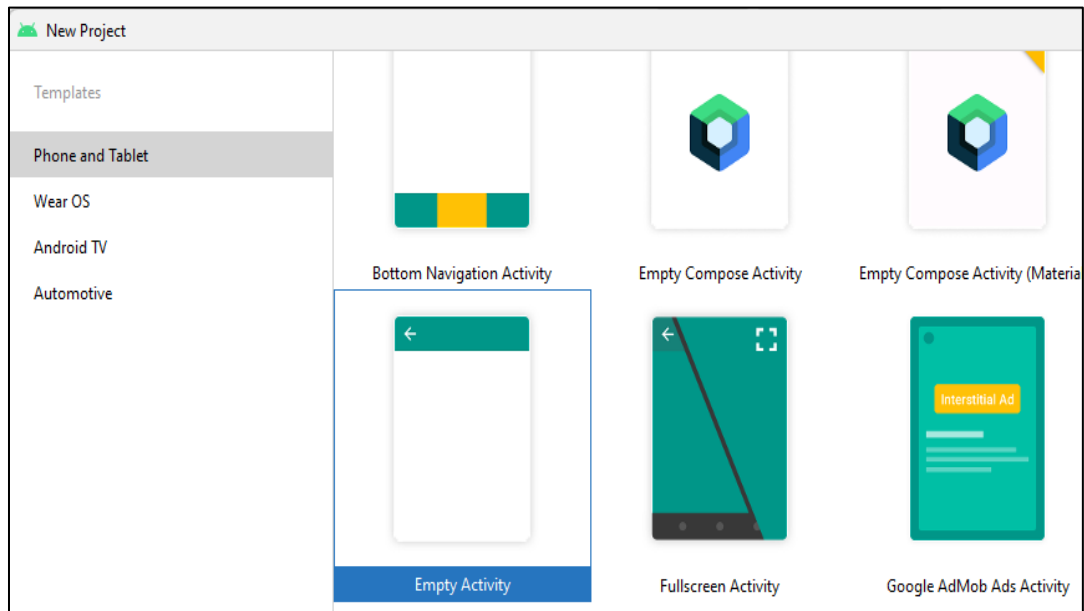
In this exercise we will work on android Frame Layout.

Let's get Started:

Step 1: Create a New Project in Android Studio as shown below

Step 2: Select Empty Activity as shown below

Step 3: Provide a Project Name as shown below

Step 4: Update MainActivity.java as per the code given below

```java
package com.example.demofragment;
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,btn3;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        btn1=findViewById(R.id.btn1);
        btn2=findViewById(R.id.btn2);
        btn3=findViewById(R.id.btn3);
        loadFragment(new BFragment(), 0);
        btn1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
            loadFragment(new AFragment(),1);
            }
        });
        btn2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                loadFragment(new BFragment(),1);
            }
        });
        btn3.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                loadFragment(new CFragment(),1);
            }
        });
    }
    public void loadFragment(Fragment fragment, int flag)

    {
        FragmentManager fm = getSupportFragmentManager();
        FragmentTransaction ft = fm.beginTransaction();
        if(flag==0)
            ft.add(R.id.container,fragment);
        else
            ft.replace(R.id.container,fragment);
        ft.commit();
    }
}

}
}
```

Step 5: Update activity_main.xml for Main Activity as per the code given below

```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:orientation="vertical"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content">

    <Button
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:layout_margin="10dp"
        android:text="Frag 1"
        android:id="@+id/btn1"/>
    <Button
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="Frag 2"
        android:layout_margin="10dp"
        android:id="@+id/btn2"/>
    <Button
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:layout_margin="10dp"
        android:text="Frag 3"
        android:id="@+id/btn3"/>


</LinearLayout>
    <FrameLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:id="@+id/container"/>

<!--<fragment
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    android:id="@+id/frag1"
    android:name="com.example.demofragment.AFragment"
    />
    <fragment
        android:layout_width="match_parent"
```

```xml
        android:layout_height="wrap_content"
        android:name="com.example.demofragment.BFragment"
        android:layout_weight="1"
        android:id="@+id/frag2"
        />-->

</LinearLayout>
```

Step 6: Create ABragment.java, BFragment.java, CFragrment.java files for Three Fragments.

Step 7: Corresponding Layout Files will be created for each Fragment

1. **fragment_a.xml**

```xml
<?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:background="#FFC107"
    tools:context=".AFragment">

    <!-- TODO: Update blank fragment layout -->
    <TextView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:text="@string/hello_blank_fragment"
        android:id="@+id/txtFragA"/>
</LinearLayout>
```

2. **fragment_b.xml**

```xml
<?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:background="#673AB7"
    tools:context=".BFragment">

    <!-- TODO: Update blank fragment layout -->
    <TextView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:text="@string/hello_blank_fragment"
        android:id="@+id/txtFragB"/>
</LinearLayout>
```
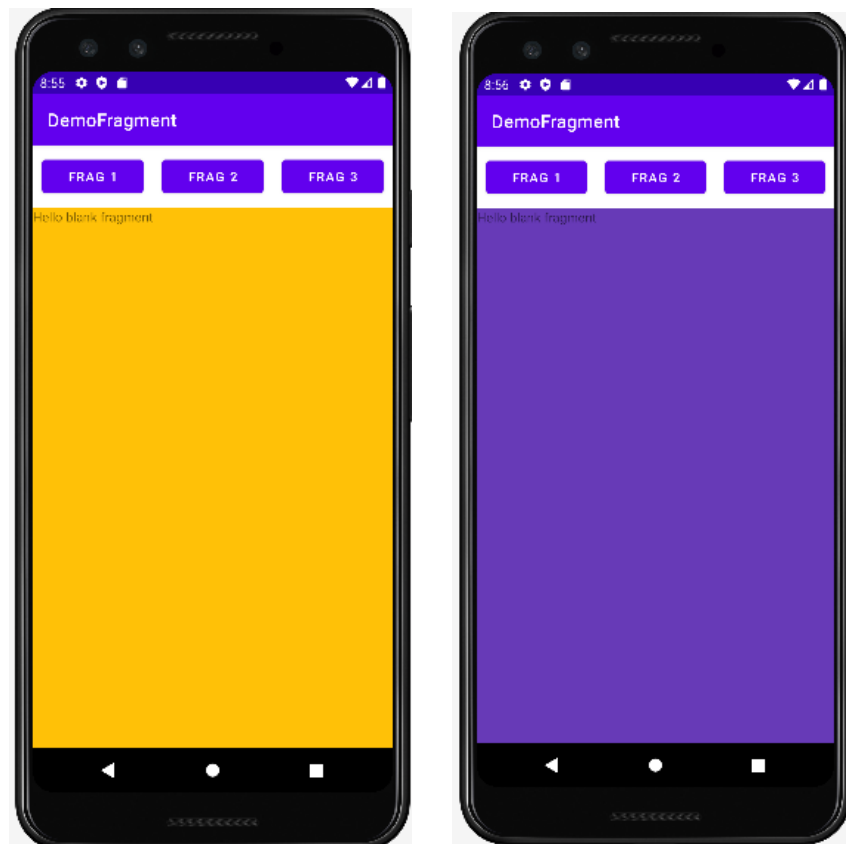
3. **fragment_c.xml**

```xml
<?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:background="#4CAF50"
    tools:context=".CFragment">
    <!-- TODO: Update blank fragment layout -->
    <TextView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:text="@string/hello_blank_fragment" />
</LinearLayout>
```

Step 8: Check Output on Android Emulator and it should look like as given below

Voila!! We have successfully completed this lab.