

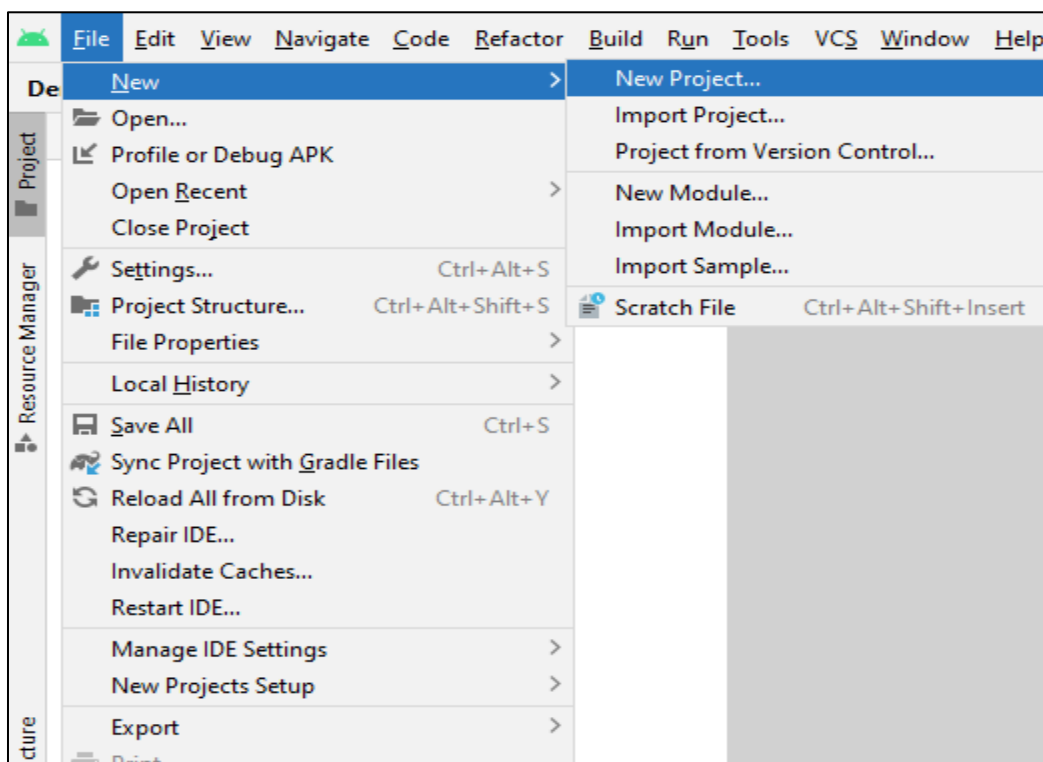
# Extra Ex 4: Working with Frame Layout

## Introduction

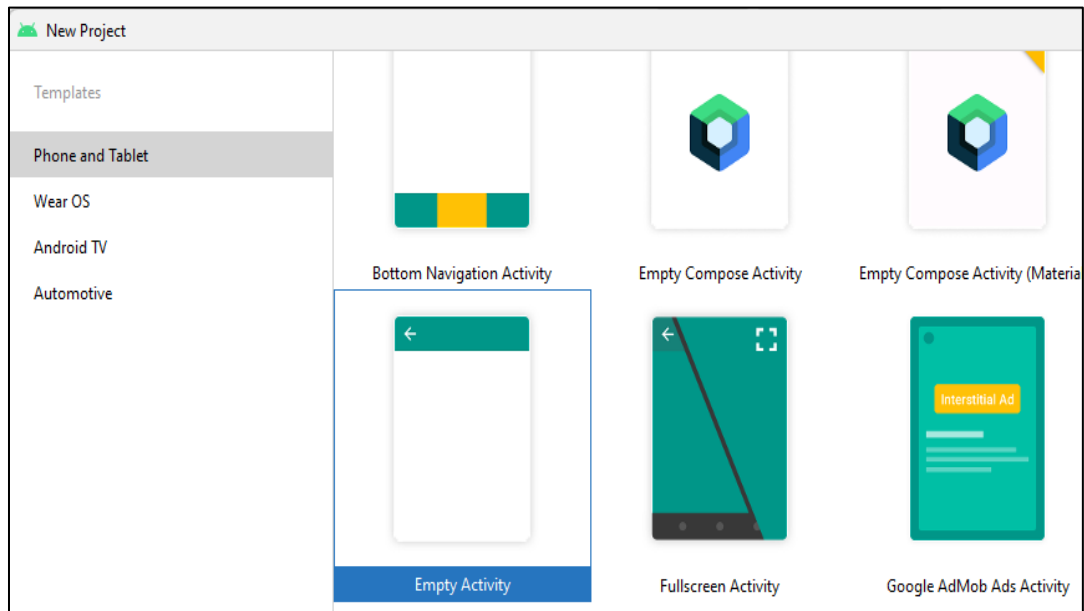
In this exercise we will work on android Frame Layout.

## 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

The screenshot shows the 'Empty Activity' configuration screen. At the top, it says 'Empty Activity' and 'Creates a new empty activity'. Below this are several input fields: 'Name' (containing 'DemoFrameLayout'), 'Package name' (containing 'com.example.demoframelayout'), 'Save location' (containing 'C:\Users\hksharma\AndroidStudioProjects\DemoFrameLayout2'), 'Language' (set to 'Java'), and 'Minimum SDK' (set to 'API 26: Android 8.0 (Oreo)'). There is an information icon and text stating 'Your app will run on approximately 88.2% of devices.' with a link 'Help me choose'. A checkbox 'Use legacy android.support libraries' is unchecked, with a note that using legacy libraries prevents the use of the latest Play Services and Jetpack libraries. At the bottom right, there are four buttons: 'Previous', 'Next', 'Cancel', and 'Finish'.

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

```
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 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"
```

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

</LinearLayout>

**Step 6: Create AFragment.java, BFragment.java, CFragment.java files for Three Fragments.**

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

### 1. fragment\_a.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 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>
```

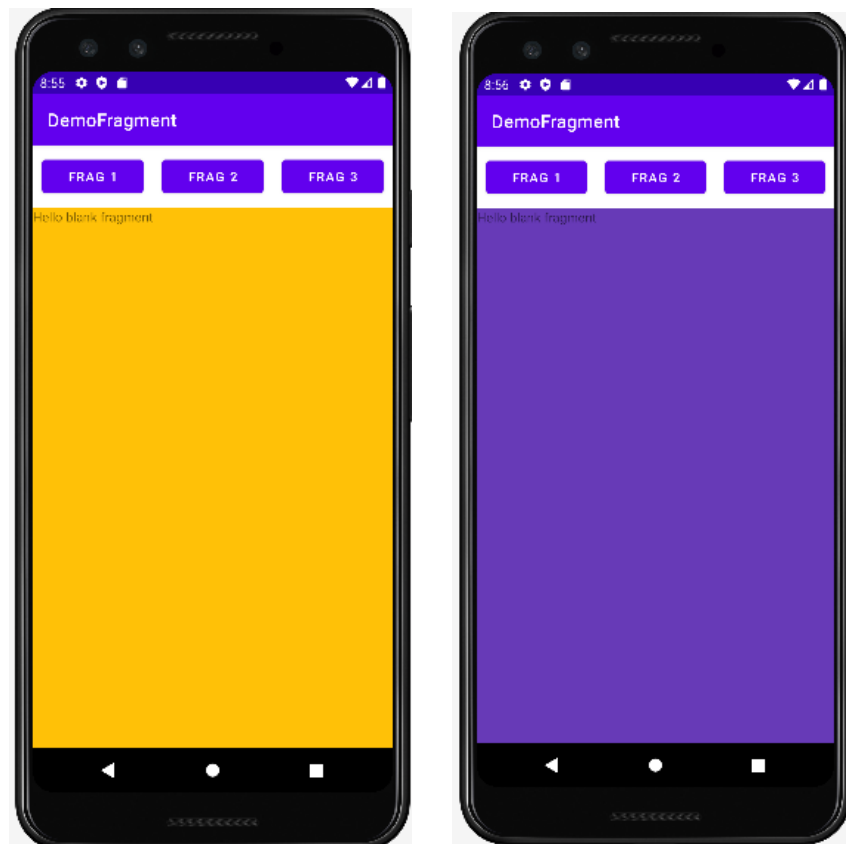
### 3. fragment\_c.xml

```

<?xml 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.