**Problem Statement:** Create an application using 2 Fragments in a Single Activity and pass data from one fragment to another.

**AndroidManifest.xml Manifest File:**

<?xml version="1.0" encoding="utf-8"?>

<manifest xmlns:android="http://schemas.android.com/apk/res/android"

xmlns:tools="http://schemas.android.com/tools">

<application

android:allowBackup="true"

android:dataExtractionRules="@xml/data\_extraction\_rules"

android:fullBackupContent="@xml/backup\_rules"

android:icon="@mipmap/ic\_launcher"

android:label="@string/app\_name"

android:roundIcon="@mipmap/ic\_launcher\_round"

android:supportsRtl="true"

android:theme="@style/Theme.Pract2\_Fragments"

tools:targetApi="31">

<activity

android:name=".MainActivity"

android:exported="true">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

<category android:name="android.intent.category.LAUNCHER" />

</intent-filter>

<meta-data

android:name="android.app.lib\_name"

android:value="" />

</activity>

</application>

</manifest>

**activity\_main.xml Layout Resource File:**

<?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=".MainActivity">

<FrameLayout

android:id="@+id/fragment\_container"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

**fragment\_one.xml Values Resource File:**

<?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=".FragmentOne">

<EditText

android:id="@+id/edit\_txt"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:ems="10"

android:inputType="textPersonName"

android:minHeight="48dp"

android:text=""

app:layout\_constraintBottom\_toTopOf="@+id/btn\_submit"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.497"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.912" />

<Button

android:id="@+id/btn\_submit"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginBottom="240dp"

android:text="Submit"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.498"

app:layout\_constraintStart\_toStartOf="parent" />

<TextView

android:id="@+id/textView2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="This is First Fragment"

android:textSize="26sp"

app:layout\_constraintBottom\_toTopOf="@+id/edit\_txt"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.705" />

</androidx.constraintlayout.widget.ConstraintLayout>

**fragment\_two.xml Layout Resource File:**

<?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=".FragmentTwo">

<TextView

android:id="@+id/textView"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginVertical="50dp"

android:ems="10"

android:text="TextView"

android:textAlignment="center"

android:textSize="25sp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<TextView

android:id="@+id/textView3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="This is Second Fragment"

android:textSize="26sp"

app:layout\_constraintBottom\_toTopOf="@+id/textView"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

**colors.xml Values Resource File:**

<?xml version="1.0" encoding="utf-8"?>

<resources>

<color name="purple\_200">#FFBB86FC</color>

<color name="purple\_500">#FF6200EE</color>

<color name="purple\_700">#FF3700B3</color>

<color name="teal\_200">#FF03DAC5</color>

<color name="teal\_700">#FF018786</color>

<color name="black">#FF000000</color>

<color name="white">#FFFFFFFF</color>

</resources>

**strings.xml Values Resource File:**

<resources>

<string name="app\_name">Pract2\_Fragments</string>

<!-- TODO: Remove or change this placeholder text -->

<string name="hello\_blank\_fragment">Hello blank fragment</string>

</resources>

**MainActivity.java JAVA File:**

package com.example.pract2\_fragments;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

if (savedInstanceState == null) {

getSupportFragmentManager().beginTransaction()

.replace(R.id.fragment\_container, new FragmentOne())

.commit();

}

}

}

**FragmentOne.java JAVA File:**

package com.example.pract2\_fragments;

import android.os.Bundle;

import androidx.fragment.app.Fragment;

import androidx.fragment.app.FragmentTransaction;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

import android.widget.Button;

import android.widget.EditText;

public class FragmentOne extends Fragment {

@Override

public void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

}

@Override

public View onCreateView(LayoutInflater inflater, ViewGroup container,

Bundle savedInstanceState) {

// Inflate the layout for this fragment

View view = inflater.inflate(R.layout.fragment\_one, container, false);

Button btn = view.findViewById(R.id.btn\_submit);

EditText editText = view.findViewById(R.id.edit\_txt);

btn.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

String data = editText.getText().toString();

// Pass data to SecondFragment

Bundle bundle = new Bundle();

bundle.putString("data", data);

FragmentTwo secondFragment = new FragmentTwo();

secondFragment.setArguments(bundle);

FragmentTransaction transaction = getParentFragmentManager().beginTransaction();

transaction.replace(R.id.fragment\_container, secondFragment);

transaction.addToBackStack(null);

transaction.commit();

}

});

return view;

}

}

**FragmentTwo.java JAVA File:**

package com.example.pract2\_fragments;

import android.os.Bundle;

import androidx.fragment.app.Fragment;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

import android.widget.TextView;

public class FragmentTwo extends Fragment {

@Override

public void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

}

@Override

public View onCreateView(LayoutInflater inflater, ViewGroup container,

Bundle savedInstanceState) {

// Inflate the layout for this fragment

View view = inflater.inflate(R.layout.fragment\_two, container, false);

TextView textView = view.findViewById(R.id.textView);

// Receive data from FirstFragment

Bundle bundle = getArguments();

if (bundle != null) {

String data = bundle.getString("data");

textView.setText(data);

}

return view;

}

}

**OUTPUT:**



