

PROGRAM NO : 17

Aim : Develop application using Fragments

JAVA Code

MainActivity.java

```
package com.example.frag;

import android.app.Fragment;
import android.app.FragmentManager;
import android.app.FragmentTransaction;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    Button firstFragment, secondFragment;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        // get the reference of Button's
        firstFragment = (Button) findViewById(R.id.firstFragment);
        secondFragment = (Button) findViewById(R.id.secondFragment);

        // perform setOnClickListener event on First Button
        firstFragment.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                // load First Fragment
                loadFragment(new FirstFragment());
            }
        });
        // perform setOnClickListener event on Second Button
        secondFragment.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                // load Second Fragment
                loadFragment(new SecondFragment());
            }
        });
    }
}
```

```

    }

    private void loadFragment(Fragment fragment) {
        // create a FragmentManager
        FragmentManager fm = getFragmentManager();
        // create a FragmentTransaction to begin the transaction and replace the Fragment
        FragmentTransaction fragmentTransaction = fm.beginTransaction();
        // replace the FrameLayout with new Fragment
        fragmentTransaction.replace(R.id.frameLayout, fragment);
        fragmentTransaction.commit(); // save the changes
    }
}

```

FirstFragment.java

```

package com.example.frag;

import android.app.Fragment;
import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Button;
import android.widget.Toast;

public class FirstFragment extends Fragment {

    View view;
    Button firstButton;

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        view = inflater.inflate(R.layout.fragment_first, container, false);
        // get the reference of Button
        firstButton = (Button) view.findViewById(R.id.firstButton);
        // perform setOnClickListener on first Button
        firstButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                // display a message by using a Toast
                Toast.makeText(getActivity(), "First Fragment", Toast.LENGTH_LONG).show();
            }
        });
        return view;
    }
}

```

SecondFragment.java

```
package com.example.frag;
import android.app.Fragment;
import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.Button;
import android.widget.Toast;

public class SecondFragment extends Fragment {

    View view;
    Button secondButton;

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        view = inflater.inflate(R.layout.fragment_second, container, false);
        // get the reference of Button
        secondButton = (Button) view.findViewById(R.id.secondButton);
        // perform setOnClickListener on second Button
        secondButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                // display a message by using a Toast
                Toast.makeText(getActivity(), "Second Fragment", Toast.LENGTH_LONG).show();
            }
        });
        return view;
    }
}
```

XML Code

activity_main.xml

```
<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="vertical"

    tools:context=".MainActivity">
```

```
<Button
    android:id="@+id/firstFragment"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"

    android:text="First Fragment"
    android:textColor="@color/white"
    android:textSize="20sp" />
```

```
<Button
    android:id="@+id/secondFragment"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="10dp"

    android:text="Second Fragment"
    android:textColor="@color/white"
    android:textSize="20sp" />
```

```
<FrameLayout
    android:id="@+id/frameLayout"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_marginTop="10dp" />
```

```
</LinearLayout>
```

fragment_first.xml

```
<RelativeLayout 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"
    tools:context="FirstFragment">
```

```
<!--TextView and Button displayed in First Fragment -->
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="100dp"
    android:text="This is First Fragment"
    android:textColor="@color/black"
    android:textSize="25sp" />
```

```
<Button
    android:id="@+id/firstButton"
    android:layout_width="fill_parent"
```

```
    android:layout_height="wrap_content"
    android:layout_centerInParent="true"
    android:layout_marginLeft="20dp"
    android:layout_marginRight="20dp"
    android:text="First Fragment"
    android:textColor="@color/white"
    android:textSize="20sp"
    android:textStyle="bold" />
</RelativeLayout>
```

fragment_second.xml

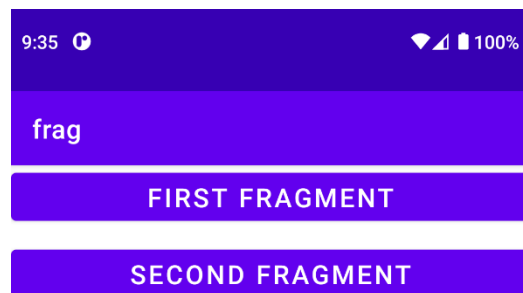
```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context="SecondFragment">

    <!--TextView and Button displayed in Second Fragment -->
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="100dp"
        android:text="This is Second Fragment"
        android:textColor="@color/black"
        android:textSize="25sp" />

    <Button
        android:id="@+id/secondButton"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:layout_centerInParent="true"
        android:layout_marginLeft="20dp"
        android:layout_marginRight="20dp"
        android:text="Second Fragment"
        android:textColor="@color/white"
        android:textSize="20sp"
        android:textStyle="bold" />

</RelativeLayout>
```

OUTPUT



This is First Fragment

FIRST FRAGMENT

