Experiment-3.1

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Subject Name: Mobile Application Development Lab
Subject Code: 20CSP-356

1. Aim:

Create an Android application using Fragments.

2. Apparatus / Simulator Used:

- Linux OS/ Windows 7 or above
- Android Studio
- Ram 4 GB and above
- Java (Including JDK & JRE)

3. Objective:

- To understand the concept of fragments.
- To implement the fragment in Android Studio.
- To implement the layout in Android Studio.
- To implement the viewgroup in Android Studio.

4. Code:

MainActivity.java

```java
package com.example.fragment;

import android.os.Bundle;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
}
```

Fragment1.java
```java
package com.example.fragment;

import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;

import androidx.fragment.app.Fragment;

public class Fragment1 extends Fragment {

    @Override
```

```java
public void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
}

@Override
public View onCreateView(LayoutInflater inflater, ViewGroup container,
            Bundle savedInstanceState) {
    // Inflate the layout for this fragment
    return inflater.inflate(R.layout.fragment_fragment1, container, false);
}
}
```

Fragment2.java
```java
package com.example.fragment;

import android.os.Bundle;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;

import androidx.fragment.app.Fragment;

public class Fragment2 extends Fragment {

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
    }

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                Bundle savedInstanceState) {
```

```java
        // Inflate the layout for this fragment
        return inflater.inflate(R.layout.fragment_fragment2, container, false);
    }

}
```

activity_main.xml

```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="fill_parent"
    android:layout_height="fill_parent"
    tools:context="com.example.fragment.MainActivity">

    <fragment
        android:id="@+id/fragment1"
        android:name="com.example.fragment.Fragment1"
        android:layout_width="0px"
        android:layout_height="match_parent"
        android:layout_weight="1"
        />
    <fragment
        android:id="@+id/fragment2"
        android:name="com.example.fragment.Fragment2"
        android:layout_width="0px"
        android:layout_height="match_parent"
        android:layout_weight="1"
        />

</LinearLayout>
```

fragment_fragment1.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout 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="#F5F5DC"
    tools:context="com.example.fragment.Fragment1">

    <TextView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:textSize="25dp"

        android:text="@string/hello_blank_fragment"

        />

</FrameLayout>
```

fragment_fragment1.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<FrameLayout 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="#F0FFFF"
    tools:context="com.example.fragment.Fragment2">

    <TextView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:textSize="26dp"
        android:text="@string/hello_blank_fragment" />

</FrameLayout>
```

5. Output:

App overview