

DATE:**ANDROID FRAGMENTS****AIM**

Develop an android application to create two activities named as Student Basic Details (Register No., Name, Department) and Student Mark Details (SSLC, HSC, UG). Write an android code to combine these two activities in single screen using android fragment.

PROCEDURE:

- Open Android Studio and import the package
- In activity_main.xml drag and drop the buttons
- The button needs to perform actions to change the colour, font size and background colour
- Click android virtual device that should control the toolbar
- Design the graphical layout with the textview and buttons
- Run the application
- The version of android and name is displayed
- The theme of the file is also mentioned in a file
- Run the file using the version which is displayed to the users.

PROGRAM CODE:**AndroidManifest.xml**

```
<?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:supportRtl="true"
        android:theme="@style/Theme.Ex4"
        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>
        </activity>
    </application>

</manifest>
```

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <androidx.appcompat.widget.Toolbar
        android:id="@+id/toolbar"
        android:layout_width="match_parent"
        android:layout_height="?attr/actionBarSize"
        android:background="?attr/colorPrimary"
        android:elevation="4dp"
        app:title="Android Fragments"
        app:titleTextColor="@android:color/white"
        />

    <FrameLayout
        android:id="@+id/container_basic_details"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="80dp"
        />

    <!-- Container for Mark Details Fragment -->
    <FrameLayout
        android:id="@+id/container_mark_details"
        android:layout_width="match_parent"
        android:layout_marginTop="450dp"
        android:layout_height="wrap_content"
        />

</RelativeLayout>
```

Fragment_student_basic_details.xml

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">

    <!-- Registration Number -->

    <TextView
        android:text="Student Basic Details"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:textAlignment="center"
        android:textSize="30dp"
        android:id="@+id/textView2"/>
    <LinearLayout
```

```
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:orientation="horizontal"
android:padding="8dp">
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Register No"
    android:textSize="20dp"
    android:layout_gravity="center_vertical"/>
```

```
<EditText
    android:id="@+id/editTextRegNo"
    android:layout_width="250dp"
    android:layout_height="wrap_content"
    android:layout_marginLeft="45dp"
    android:hint="Registration Number"/>
```

```
</LinearLayout>
```

```
<!-- Name -->
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:padding="8dp">
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Name"
    android:textSize="20dp"
    android:layout_gravity="center_vertical"/>
```

```
<EditText
    android:id="@+id/editTextName"
    android:layout_width="251dp"
    android:layout_height="wrap_content"
    android:layout_marginLeft="95dp"
    android:hint="Enter Name"/>
```

```
</LinearLayout>
```

```
<!-- Department -->
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:padding="8dp">
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Department"
    android:textSize="20dp"
    android:layout_gravity="center_vertical"/>
```

```
<EditText
    android:id="@+id/editTextDept"
    android:layout_width="252dp"
    android:layout_marginLeft="40dp"
    android:layout_height="wrap_content"
    android:hint="Enter Department"/>
</LinearLayout>
```

```
</LinearLayout>
```

Fragment_student_mark_details.xml

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">
```

```
<!-- SSLC Marks -->
```

```
<TextView
    android:text="Student Mark Details"
    android:textAlignment="center"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:textSize="30dp"
    android:id="@+id/textView"/>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:padding="8dp">
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="SSLC Marks"
    android:textSize="20dp"
    android:layout_gravity="center_vertical"/>
```

```
<EditText
    android:id="@+id/editTextSSLCMarks"
    android:layout_width="251dp"
    android:layout_height="wrap_content"
    android:layout_marginLeft="40dp"
    android:hint="Enter SSLC Marks"/>
```

```
</LinearLayout>
```

```
<!-- HSC Marks -->
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:padding="8dp">
```

```
<TextView
```

```
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="HSC Marks"
    android:textSize="20dp"
    android:layout_gravity="center_vertical"/>
```

```
<EditText
    android:id="@+id/editTextHSCMarks"
    android:layout_width="251dp"
    android:layout_height="wrap_content"
    android:layout_marginLeft="45dp"
    android:hint="Enter HSC Marks"/>
```

```
</LinearLayout>
```

```
<!-- UG Marks -->
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:padding="8dp">
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="UG CGPA"
    android:textSize="20dp"
    android:layout_gravity="center_vertical"/>
```

```
<EditText
    android:id="@+id/editTextUGMarks"
    android:layout_width="251dp"
    android:layout_height="wrap_content"
    android:layout_marginLeft="60dp"
    android:hint="Enter UG CGPA"/>
```

```
</LinearLayout>
```

```
</LinearLayout>
```

MainActivity.kt

```
package com.example.ex4
```

```
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import androidx.appcompat.widget.Toolbar
```

```
class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        supportFragmentManager.beginTransaction()
            .replace(R.id.container_basic_details, StudentBasicDetailsFragment())
            .replace(R.id.container_mark_details, StudentMarkDetailsFragment())
```

```
.commit()
```

```
    val toolbar: Toolbar = findViewById(R.id.toolbar)
    setSupportActionBar(toolbar)
}
}
```

StudentBasicDetails.kt

```
package com.example.ex4
import android.os.Bundle
import androidx.fragment.app.Fragment
import android.view.LayoutInflater
import android.view.View
import android.view.ViewGroup
class StudentBasicDetailsFragment : Fragment() {
    override fun onCreateView(
        inflater: LayoutInflater, container: ViewGroup?,
        savedInstanceState: Bundle?
    ): View? {
        return inflater.inflate(R.layout.fragment_student_basic_details, container, false)
    }
}
```

StudentMarkDetails.kt

```
package com.example.ex4

import android.os.Bundle
import androidx.fragment.app.Fragment
import android.view.LayoutInflater
import android.view.View
import android.view.ViewGroup

class StudentMarkDetailsFragment : Fragment() {
    override fun onCreateView(
        inflater: LayoutInflater, container: ViewGroup?,
        savedInstanceState: Bundle?
    ): View? {
        return inflater.inflate(R.layout.fragment_student_mark_details, container, false)
    }
}
```

OUTPUT:

Android Fragments

Student Details

Basic Details

Register No. Register Number

Name Name

Department Department

Mark Details

S.S.L.C. S.S.L.C. Mark

H.Sc. H.Sc. Mark

U.G. U.G. C.G.P.A.

RESULT: