**SGPI Activity**

In this activity we have asked user to give input his/her pointer for determining equivalent percentage. We have also given some motivational statement as soon as user checks his/her percentage.

For this make following changes in **activity\_sgpi.xml-**

<?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=".CGPIActivity1">  
  
 <Button  
 android:id="@+id/button"  
 android:layout\_width="125dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginLeft="8dp"  
 android:layout\_marginTop="8dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginRight="8dp"  
 android:layout\_marginBottom="8dp"  
 android:background="#FFFFFF"  
 android:onClick="percentCalculate"  
 android:text="CALCULATE"  
 android:textColor="#009688"  
 android:textSize="20dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/editText"  
 app:layout\_constraintVertical\_bias="0.326" />  
  
 <EditText  
 android:id="@+id/editText"  
 android:layout\_width="235dp"  
 android:layout\_height="68dp"  
 android:layout\_marginStart="8dp"  
 android:layout\_marginLeft="8dp"  
 android:layout\_marginTop="8dp"  
 android:layout\_marginEnd="8dp"  
 android:layout\_marginRight="8dp"  
 android:layout\_marginBottom="8dp"  
 android:ems="10"  
 android:hint="Pointer"  
 android:inputType="numberDecimal"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.32" />  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="299dp"  
 android:layout\_height="156dp"  
 android:gravity="center"  
 android:textColor="@android:color/holo\_blue\_dark"  
 android:textSize="25sp"  
 app:fontFamily="cursive"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/button" />  
</androidx.constraintlayout.widget.ConstraintLayout>

Also, make some changes in **SGPIActivity1.java** as follows-

package com.professionaljk.cgpisgpicalculator;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.EditText;  
import android.widget.TextView;  
import android.widget.Toast;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class SGPIActivity1 extends AppCompatActivity {  
 EditText et;  
 TextView tv;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_sgpi1*);  
 et=findViewById(R.id.*editText*);  
 tv=findViewById(R.id.*textView*);  
 }  
 public void percentCalculate(View view){  
 if (et.getText().toString().equals("")) {  
 Toast.*makeText*(this, "Provide correct pointer", Toast.*LENGTH\_SHORT*).show();  
 } else if (Double.*valueOf*(et.getText().toString()) >= 4.0 && Double.*valueOf*(et.getText().toString()) <= 6.74) {  
 double sgpi = Double.*valueOf*(et.getText().toString());  
 double percentage = sgpi \* 8 + 5;  
 percentage = Math.*round*(percentage \* 100.0) / 100.0;  
 tv.setText("SGPI: " + sgpi + "\n" + "Percentage: " + percentage + "\n" + "Second Class\nYou have to work hard");  
 } else if (Double.*valueOf*(et.getText().toString()) >= 6.75 && Double.*valueOf*(et.getText().toString()) <= 7.24) {  
 double sgpi = Double.*valueOf*(et.getText().toString());  
 double percentage = sgpi \* 8 + 6;  
 percentage = Math.*round*(percentage \* 100.0) / 100.0;  
 tv.setText("SGPI: " + sgpi + "\n" + "Percentage: " + percentage + "\n" + "First Class\nNot bad!");  
 } else if (Double.*valueOf*(et.getText().toString()) >= 7.25 && Double.*valueOf*(et.getText().toString()) <= 7.74) {  
 double sgpi = Double.*valueOf*(et.getText().toString());  
 double percentage = sgpi \* 8 + 7;  
 percentage = Math.*round*(percentage \* 100.0) / 100.0;  
 tv.setText("SGPI: " + sgpi + "\n" + "Percentage: " + percentage + "\n" + "First Class\nNeed some more focus!");  
 } else if (Double.*valueOf*(et.getText().toString()) >= 7.75 && Double.*valueOf*(et.getText().toString()) <= 8.24) {  
 double sgpi = Double.*valueOf*(et.getText().toString());  
 double percentage = sgpi \* 8 + 8;  
 percentage = Math.*round*(percentage \* 100.0) / 100.0;  
 tv.setText("SGPI: " + sgpi + "\n" + "Percentage: " + percentage + "\n" + "First Class\nYou can improve this!");  
 } else if (Double.*valueOf*(et.getText().toString()) >= 8.25 && Double.*valueOf*(et.getText().toString()) <= 9.99) {  
 double sgpi = Double.*valueOf*(et.getText().toString());  
 double percentage = sgpi \* 8 + 9;  
 percentage = Math.*round*(percentage \* 100.0) / 100.0;  
 tv.setText("SGPI: " + sgpi + "\n" + "Percentage: " + percentage + "\n" + "Distinction\nKeep going ahead!");  
 } else if (Double.*valueOf*(et.getText().toString()) == 10.0) {  
 double sgpi = Double.*valueOf*(et.getText().toString());  
 double percentage = sgpi \* 8 + 10;  
 percentage = Math.*round*(percentage \* 100.0) / 100.0;  
 tv.setText("SGPI: " + sgpi + "\n" + "Percentage: " + percentage + "\n" + "Distinction\nCongratulations for your success!");  
 } else if (Double.*valueOf*(et.getText().toString()) < 4.0 || Double.*valueOf*(et.getText().toString()) > 10.0) {  
 Toast.*makeText*(this, "Enter correct pointer", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
}

**OUTPUT:**

 