

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.cgpiisgpiccalculator;

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:

Pointer Calculator

Pointer

CALCULATE

Pointer Calculator

8.46

CALCULATE

SGPI: 8.46
Percentage: 76.68
Distinction
Keep going ahead!