2. **Program-2: Develop an Android application using controls like Button, TextView, EditText for designing a calculator having basic functionality like Addition, Subtraction, Multiplication, and Division**

XML code:

*<?*xml version="1.0" encoding="utf-8"*?>*

<RelativeLayout 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=".MainActivity">

<TextView

android:layout\_width="209dp"

android:layout\_height="60dp"

android:layout\_alignParentEnd="true"

android:layout\_alignParentRight="true"

android:layout\_alignParentBottom="true"

android:layout\_marginEnd="108dp"

android:layout\_marginRight="108dp"

android:layout\_marginBottom="530dp"

android:text="Simple Calci"

android:textSize="36sp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintRight\_toRightOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

<EditText

android:id="@+id/editText2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_alignParentEnd="true"

android:layout\_alignParentRight="true"

android:layout\_alignParentBottom="true"

android:layout\_marginEnd="115dp"

android:layout\_marginRight="115dp"

android:layout\_marginBottom="364dp"

android:ems="10"

android:hint="Enter the Number 2"

android:inputType="textPersonName"

android:text=""

android:textColorHighlight="#FFFFFF" />

<EditText

android:id="@+id/editText1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_alignParentEnd="true"

android:layout\_alignParentRight="true"

android:layout\_alignParentBottom="true"

android:layout\_marginEnd="110dp"

android:layout\_marginRight="110dp"

android:layout\_marginBottom="439dp"

android:ems="10"

android:hint="Enter the Number 1"

android:inputType="textPersonName"

android:text=""

android:textColorHighlight="#FFFFFF" />

<Button

android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_alignParentEnd="true"

android:layout\_alignParentRight="true"

android:layout\_alignParentBottom="true"

android:layout\_marginEnd="260dp"

android:layout\_marginRight="260dp"

android:layout\_marginBottom="175dp"

android:text="ADD"

android:textStyle="bold"

android:onClick="add"

app:backgroundTint="#E8F381" />

<Button

android:id="@+id/button3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_alignParentEnd="true"

android:layout\_alignParentRight="true"

android:layout\_alignParentBottom="true"

android:layout\_marginEnd="266dp"

android:layout\_marginRight="266dp"

android:layout\_marginBottom="61dp"

android:text="MUL"

android:onClick="mul"

app:backgroundTint="#A1FAA4" />

<Button

android:id="@+id/button4"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_alignParentEnd="true"

android:layout\_alignParentRight="true"

android:layout\_alignParentBottom="true"

android:layout\_marginEnd="108dp"

android:layout\_marginRight="108dp"

android:layout\_marginBottom="63dp"

android:text="DIV"

android:onClick="div"

app:backgroundTint="#E6C28C" />

<Button

android:id="@+id/button2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_alignParentEnd="true"

android:layout\_alignParentRight="true"

android:layout\_alignParentBottom="true"

android:layout\_marginEnd="105dp"

android:layout\_marginRight="105dp"

android:layout\_marginBottom="182dp"

android:text="SUB"

android:onClick="sub"

app:backgroundTint="#ECA9A9" />

<TextView

android:id="@+id/tv1"

android:layout\_width="86dp"

android:layout\_height="61dp"

android:layout\_alignParentEnd="true"

android:layout\_alignParentRight="true"

android:layout\_alignParentBottom="true"

android:layout\_marginEnd="202dp"

android:layout\_marginRight="202dp"

android:layout\_marginBottom="274dp"

android:text="0"

android:textSize="36sp" />

</RelativeLayout>

Java code:

package com.example.program2;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

EditText e1,e2;

TextView tv;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.*activity\_main*);

e1 =(EditText)findViewById(R.id.*editText1*);

e2 = (EditText)findViewById(R.id.*editText2*);

tv= (TextView)findViewById(R.id.*tv1*);

}

public void add(View v){

int a1=Integer.*parseInt*(e1.getText().toString());

int a2= Integer.*parseInt*(e2.getText().toString());

int result=a1+a2;

tv.setText(""+result);

}

public void sub(View v){

int a1=Integer.*parseInt*(e1.getText().toString());

int a2= Integer.*parseInt*(e2.getText().toString());

int result=a1-a2;

tv.setText(""+result);

}

public void mul(View v){

int a1=Integer.*parseInt*(e1.getText().toString());

int a2= Integer.*parseInt*(e2.getText().toString());

int result=a1\*a2;

tv.setText(""+result);

}

public void div(View v){

float a1=Integer.*parseInt*(e1.getText().toString());

float a2= Integer.*parseInt*(e2.getText().toString());

float result=a1/a2;

tv.setText(""+result);

}

}