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.

1) Firstly, Create an Application by Name “calciApplication”

2) Go to xml code of design change the layout to “RelativeLayout”

3) Add TextView component & change the following properties:

• Size: 36sp

• Text: Simple Calci

• Center-Align

4) Add PlainText(EditText) component & change the following properties in XML Code

• Text: “”

• Hint: “Enter the Number 1”

• id: “@+id/editText1”

5) Add PlainText(EditText) component & change the following properties in XML Code:

• Text: “”

• Hint: “Enter the Number 2 ”

• id: “@+id/editText2”

6) Add TextView component to display result & change the following properties:

• Size: 40dp

• Text: “0”

• Center-Align

• id: “@+id/textView1”

7) Add 4 Buttons & rename the four buttons “Add”, “Sub”,”Mul” and “div” with following addition:

• Onclick: “doAdd”(Add Button)

• Onclick: “doSub”(Sub Button)

• Onclick: “doMul”(Mul Button)

• Onclick: “doDiv”(Div Button)

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

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);

}

}

