**CALCULATOR**

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1NTI9IS411

**ACTIVITY.XML**

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout 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"  
 android:orientation="vertical"  
 android:background="@color/white">  
  
  
  
 <EditText  
 android:id="@+id/edv"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_weight="1"  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:text="0"  
 android:textAlignment="textEnd"  
 android:textSize="34sp" />  
  
 <TableLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content">  
  
  
 <TableRow  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent" >  
  
  
 <Button  
 android:id="@+id/AC\_event"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/black"  
 android:text="AC"  
 android:textSize="20sp"  
 android:onClick="acEvent"  
 ></Button>  
  
 <Button  
 android:id="@+id/pm"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/black"  
 android:text="+/-"  
 android:textSize="20sp"  
 android:onClick="operatorEvent"></Button>  
  
 <Button  
 android:id="@+id/percent"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/black"  
 android:text="%"  
 android:textSize="20sp"  
 android:onClick="percentEvent"></Button>  
  
 <Button  
 android:id="@+id/multiply"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/black"  
 android:text="\*"  
 android:textSize="20sp"  
 android:onClick="operatorEvent"></Button>  
  
  
 </TableRow>  
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 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent" >  
  
  
 <Button  
 android:id="@+id/seven"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/purple\_500"  
 android:text="7"  
 android:textSize="20sp"  
 android:onClick="numberEvent"></Button>  
  
 <Button  
 android:id="@+id/eight"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/purple\_500"  
 android:text="8"  
 android:textSize="20sp"  
 android:onClick="numberEvent"></Button>  
  
 <Button  
 android:id="@+id/nine"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/purple\_500"  
 android:text="9"  
 android:textSize="20sp"  
 android:onClick="numberEvent"></Button>  
  
 <Button  
 android:id="@+id/division"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/black"  
 android:text="/"  
 android:textSize="20sp"  
 android:onClick="operatorEvent"></Button>  
  
  
 </TableRow>  
 <TableRow  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent" >  
  
  
 <Button  
 android:id="@+id/four"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/purple\_500"  
 android:text="4"  
 android:textSize="20sp"  
 android:onClick="numberEvent"></Button>  
  
 <Button  
 android:id="@+id/five"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/purple\_500"  
 android:text="5"  
 android:textSize="20sp"  
 android:onClick="numberEvent"></Button>  
  
 <Button  
 android:id="@+id/six"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/purple\_500"  
 android:text="6"  
 android:textSize="20sp"  
 android:onClick="numberEvent"></Button>  
  
 <Button  
 android:id="@+id/add"  
 android:layout\_width="30pt"  
 android:layout\_height="62dp"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/black"  
 android:text="+"  
 android:textSize="20sp"  
 android:onClick="operatorEvent"></Button>  
  
  
 </TableRow>  
 <TableRow  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent" >  
  
  
 <Button  
 android:id="@+id/one"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/purple\_500"  
 android:text="1"  
 android:textSize="20sp"  
 android:onClick="numberEvent"></Button>  
  
 <Button  
 android:id="@+id/two"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/purple\_500"  
 android:text="2"  
 android:textSize="20sp"  
 android:onClick="numberEvent"></Button>  
  
 <Button  
 android:id="@+id/three"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/purple\_500"  
 android:text="3"  
 android:textSize="20sp"  
 android:onClick="numberEvent"></Button>  
  
 <Button  
 android:id="@+id/sub"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/black"  
 android:text="-"  
 android:textSize="20sp"  
 android:onClick="operatorEvent"></Button>  
  
  
 </TableRow>  
 <TableRow  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent" >  
  
  
 <Button  
 android:id="@+id/zero"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/purple\_500"  
 android:text="0"  
 android:textSize="20sp"  
 android:onClick="numberEvent"></Button>  
  
 <Button  
 android:id="@+id/decimal"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/black"  
 android:text="."  
 android:onClick="numberEvent"  
 android:textSize="20sp"></Button>  
  
 <Button  
 android:id="@+id/equals"  
 android:layout\_width="30pt"  
 android:layout\_height="30pt"  
 android:layout\_margin="1pt"  
 android:layout\_weight="1"  
 android:backgroundTint="@color/black"  
 android:text="="  
 android:textSize="20sp"  
 android:onClick="equalsEvent"></Button>  
  
  
  
 </TableRow>

**MainActivity.Java**

package com.example.calculator;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.EditText;  
  
public class MainActivity extends AppCompatActivity {  
 boolean isNewOp = true ;  
 String op , oldNumber ;  
 EditText ed1 ;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 ed1 = findViewById(R.id.*edv*) ;  
  
 }  
 public void acEvent(View view)  
 {  
 ed1.setText("0");  
 isNewOp=true;  
 }  
 public void numberEvent(View view) {  
 if(isNewOp){  
 ed1.setText("");  
 }  
 isNewOp = false;  
 String number = ed1.getText().toString();  
 switch (view.getId())  
 {  
 case R.id.*seven* :  
 number+= "7";  
 break;  
 case R.id.*eight* :  
 number+= "8";  
 break;  
 case R.id.*nine* :  
 number+= "9";  
 break;  
 case R.id.*four* :  
 number+= "4";  
 break;  
 case R.id.*five*:  
 number+= "5";  
 break;  
 case R.id.*six* :  
 number+= "6";  
 break;  
 case R.id.*one*:  
 number+= "1";  
 break;  
 case R.id.*two*:  
 number+= "2";  
 break;  
 case R.id.*three* :  
 number+= "3";  
 break;  
 case R.id.*zero* :  
 number+= "0";  
 break;  
 case R.id.*decimal*:  
 number+= ".";  
 break;  
 case R.id.*pm* :  
 number="-"+number;  
 break;  
  
  
 }  
 ed1.setText(number);  
 }  
 public void operatorEvent(View view){  
  
 isNewOp = true;  
  
 oldNumber = ed1.getText().toString();  
 switch(view.getId()){  
 case R.id.*division*: op="/";  
 break;  
 case R.id.*multiply*: op="\*";  
 break;  
 case R.id.*add* : op="+";  
 break;  
 case R.id.*sub*: op="-";  
 break;  
 }  
 }  
 public void equalsEvent(View view){  
 String newNumber = ed1.getText().toString();  
 double result=0.0;  
 switch (op)  
 {  
 case "+":  
 result= Double.*parseDouble*(oldNumber)+Double.*parseDouble*(newNumber);  
 break;  
 case "-":  
 result=Double.*parseDouble*(oldNumber)-Double.*parseDouble*(newNumber);  
 break;  
 case "\*":  
 result=Double.*parseDouble*(oldNumber)\*Double.*parseDouble*(newNumber);  
 break;  
 case "/":  
 result=Double.*parseDouble*(oldNumber)/Double.*parseDouble*(newNumber);  
 break;  
 }  
 ed1.setText(result+"");  
 }  
 public void percentEvent(View view){  
 String n = ed1.getText().toString() ;  
 double num = Double.*parseDouble*(n)/100;  
 isNewOp = true ;  
 ed1.setText(num+"");  
 }  
}

Output:

