Xml:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  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:background="#2B2929">
  <TextView
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text=""
    android:id="@+id/no01"
    android:textSize="40dp"
    android:layout marginTop="10dp"
    android:layout marginRight="10dp"
    android:textColor="@color/white"
    android:layout toLeftOf="@id/no03"
    android:layout above="@id/no02"/>
  <TextView
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text=""
    android:id="@+id/no02"
    android:layout alignParentRight="true"
    android:textSize="40dp"
    android:layout marginTop="5dp"
    android:layout marginRight="10dp"
    android:textColor="@color/white"
    android:layout above="@id/buttons"/>
  <TextView
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text=""
    android:id="@+id/no03"
    android:layout alignParentRight="true"
    android:textSize="40dp"
    android:layout marginTop="5dp"
    android:layout marginRight="10dp"
    android:textColor="@color/white"
    android:layout above="@id/no02"/>
  <RelativeLayout
    android:layout width="match parent"
    android:layout height="wrap content"
    android:layout marginTop="10dp"
    android:padding="1dp"
    android:id="@+id/buttons"
    android:layout alignParentBottom="true"
```

```
android:layout marginBottom="10dp">
<GridLayout
  android:layout width="match parent"
  android:layout height="wrap content"
  android:columnCount="4"
  android:layout marginBottom="1dp"
  android:id="@+id/row1">
  <Button
    android:layout width="100dp"
    android:layout height="100dp"
    android:id="@+id/allclr"
    android:layout margin="1dp"
    android:background="@drawable/back"
    android:text="AC"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/black"/>
  <Button
    android:layout width="100dp"
    android:layout height="100dp"
    android:id="@+id/clr"
    android:layout margin="1dp"
    android:background="@drawable/back"
    android:text="C"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/black"/>
  <Button
    android:layout width="100dp"
    android:layout height="100dp"
    android:id="@+id/mod"
    android:layout margin="1dp"
    android:background="@drawable/back"
    android:text="%"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/black"/>
  <Button
    android:layout width="100dp"
    android:layout height="100dp"
    android:id="@+id/div"
    android:layout margin="1dp"
    android:text="/"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/black"
    android:background="@drawable/back"/>
```

```
<GridLayout
  android:layout width="match parent"
  android:layout height="wrap content"
  android:columnCount="4"
  android:layout below="@id/row1"
  android:layout marginBottom="1dp"
  android:id="@+id/row2">
  <Button
    android:id="@+id/num7"
    android:layout width="100dp"
    android:layout height="100dp"
    android:layout margin="1dp"
    android:layout marginStart="1dp"
    android:layout marginTop="1dp"
    android:layout marginEnd="1dp"
    android:layout marginBottom="1dp"
    android:background="@drawable/back"
    android:text="7"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/white"/>
  <Button
    android:id="@+id/num8"
    android:layout width="100dp"
    android:layout height="100dp"
    android:layout margin="1dp"
    android:layout marginStart="1dp"
    android:layout marginTop="1dp"
    android:layout marginEnd="1dp"
    android:layout marginBottom="1dp"
    android:background="@drawable/back"
    android:text="8"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/white"/>
  <Button
    android:id="@+id/num9"
    android:layout width="100dp"
    android:layout height="100dp"
    android:layout margin="1dp"
    android:layout marginStart="1dp"
    android:layout marginTop="1dp"
    android:layout marginEnd="1dp"
    android:layout marginBottom="1dp"
    android:background="@drawable/back"
```

```
android:text="9"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/white"/>
  <Button
    android:id="@+id/mul"
    android:layout width="100dp"
    android:layout height="100dp"
    android:layout margin="1dp"
    android:layout marginStart="1dp"
    android:layout marginTop="1dp"
    android:layout marginEnd="1dp"
    android:layout marginBottom="1dp"
    android:background="@drawable/back"
    android:text="x"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/black" />
</GridLayout>
<GridLayout
  android:layout width="match parent"
  android:layout height="wrap content"
  android:columnCount="4"
  android:layout marginBottom="1dp"
  android:layout below="@id/row2"
  android:id="@+id/row3">
  <Button
    android:id="@+id/num4"
    android:layout width="100dp"
    android:layout height="100dp"
    android:layout margin="1dp"
    android:background="@drawable/back"
    android:text="4"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/white"
    />
  <Button
    android:id="@+id/num5"
    android:layout width="100dp"
    android:layout height="100dp"
    android:layout margin="1dp"
    android:background="@drawable/back"
    android:text="5"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/white"
```

```
<Button
    android:id="@+id/num6"
    android:layout width="100dp"
    android:layout height="100dp"
    android:layout margin="1dp"
    android:background="@drawable/back"
    android:text="6"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/white"
    />
  <Button
    android:id="@+id/min"
    android:layout width="100dp"
    android:layout height="100dp"
    android:layout margin="1dp"
    android:background="@drawable/back"
    android:text="-"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/black" />
</GridLayout>
<GridLayout
  android:layout width="match parent"
  android:layout height="wrap_content"
  android:columnCount="4"
  android:layout marginBottom="1dp"
  android:layout below="@id/row3"
  android:id="@+id/row4">
  <Button
    android:id="@+id/num1"
    android:layout width="100dp"
    android:layout height="100dp"
    android:layout margin="1dp"
    android:background="@drawable/back"
    android:text="1"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/white"
    />
  <Button
    android:id="@+id/num2"
    android:layout width="100dp"
    android:layout height="100dp"
    android:layout margin="1dp"
```

```
android:background="@drawable/back"
    android:text="2"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/white"
    />
  <Button
    android:id="@+id/num3"
    android:layout width="100dp"
    android:layout height="100dp"
    android:layout margin="1dp"
    android:background="@drawable/back"
    android:text="3"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/white"
    />
  <Button
    android:id="@+id/plus"
    android:layout width="100dp"
    android:layout height="100dp"
    android:layout margin="1dp"
    android:background="@drawable/back"
    android:text="+"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/black"
    />
</GridLayout>
<GridLayout
  android:layout width="match parent"
  android:layout height="wrap content"
  android:columnCount="4"
  android:layout below="@id/row4"
  android:id="@+id/row5">
  <Button
    android:id="@+id/zero"
    android:layout width="202dp"
    android:layout height="100dp"
    android:layout margin="1dp"
    android:background="@drawable/back"
    android:text="0"
    android:textSize="30dp"
    android:textStyle="bold"
    android:textColor="@color/white"
    />
```

```
android:id="@+id/point"
         android:layout width="100dp"
         android:layout height="100dp"
         android:layout margin="1dp"
         android:background="@drawable/back"
         android:text="."
         android:textSize="30dp"
         android:textStyle="bold"
         android:textColor="@color/white"
         />
       <Button
         android:id="@+id/equal"
         android:layout width="100dp"
         android:layout height="100dp"
         android:layout margin="1dp"
         android:background="@drawable/back"
         android:text="="
         android:textSize="30dp"
         android:textStyle="bold"
         android:textColor="@color/black"
         />
    </GridLayout>
  </RelativeLayout>
</RelativeLayout>
Java:
package com.example.calculator;
import static java.lang.Math.abs;
import androidx.appcompat.app.AppCompatActivity;
import android.graphics.Color;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
import android.widget.Toast;
import org.w3c.dom.Text;
public class MainActivity extends AppCompatActivity {
```

<Button

```
Button
b1,b2,b3,b4,b5,b6,b7,b8,b9,b0,badd,bminus,bmul,bdiv,bmod,bclr,ballclr,begl,bpoint;
  TextView t1,t2,t3;
  int cal = 0;
  double no1,no2;
  String str1,str2,str3;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity main);
    b1 = (Button) findViewById(R.id.num1);
    b2 = (Button) findViewById(R.id.num2);
    b3 = (Button) findViewById(R.id.num3);
    b4 = (Button) findViewById(R.id.num4);
    b5 = (Button) findViewById(R.id.num5);
    b6 = (Button) findViewById(R.id.num6);
    b7 = (Button) findViewById(R.id.num7);
    b8 = (Button) findViewById(R.id.num8);
    b9 = (Button) findViewById(R.id.num9);
    b0 = (Button) findViewById(R.id.zero);
    badd = (Button) findViewById(R.id.plus);
    bminus = (Button) findViewById(R.id.min);
    bmul = (Button) findViewById(R.id.mul);
    bdiv = (Button) findViewById(R.id.div);
    bmod = (Button) findViewById(R.id.mod);
    bclr = (Button) findViewById(R.id.clr);
    ballclr = (Button) findViewById(R.id.allclr);
    beql = (Button) findViewById(R.id.equal);
    bpoint = (Button) findViewById(R.id.point);
    t1 = (TextView) findViewById(R.id.no01);
    t2 = (TextView) findViewById(R.id.no02);
    t3 = (TextView) findViewById(R.id.no03);
    str1 = "":
    str2 ="";
    str3 = "";
    b1.setOnClickListener(new View.OnClickListener() {
       @Override
       public void onClick(View v) {
         str2 += "1";
         t2.setText(str2);
```

```
}
});
b2.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
     str2 += "2";
     t2.setText(str2);
});
b3.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
     str2 += "3";
     t2.setText(str2);
  }
});
b4.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
     str2 += "4";
     t2.setText(str2);
});
b5.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
     str2 += "5";
     t2.setText(str2);
});
b6.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
     str2 += "6";
     t2.setText(str2);
});
b7.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
     str2 += "7";
     t2.setText(str2);
});
```

```
b8.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
    str2 += "8";
    t2.setText(str2);
});
b9.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
    str2 += "9";
    t2.setText(str2);
  }
});
b0.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
    str2 += "0";
    t2.setText(str2);
  }
});
badd.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
    if(!str2.isEmpty()){
       str3 = "+";
       str1 = str2;
       str2 = "";
       t1.setText(str1);
       t2.setText(str2);
       t3.setText(str3);
       cal = 1;
     }
    else{
       str3 = "";
       t3.setText(str3);
  }
});
bminus.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
    if(!str2.isEmpty()){
       str3 = "-";
```

```
str1 = str2;
       str2 = "";
       t1.setText(str1);
       t2.setText(str2);
       t3.setText(str3);
       cal = 2;
     }
    else{
       str3 = "";
       t3.setText(str3);
     }
  }
});
bmul.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
    if (!str2.isEmpty()) {
       str3 = "x";
       str1 = str2;
       str2 = "";
       t1.setText(str1);
       t2.setText(str2);
       t3.setText(str3);
       cal = 3;
     } else {
       str3 = "";
       t3.setText(str3);
  }
});
bdiv.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
    if(!str2.isEmpty()){
       str3 = "/";
       str1 = str2;
       str2 = "";
       t1.setText(str1);
       t2.setText(str2);
       t3.setText(str3);
       cal = 4;
     }
    else{
       str3 = "";
       t3.setText(str3);
     }
});bmod.setOnClickListener(new View.OnClickListener() {
```

```
@Override
  public void onClick(View v) {
    if(!str2.isEmpty()){
       str3 = "%";
       str1 = str2;
       str2 = "";
       t1.setText(str1);
       t2.setText(str2);
       t3.setText(str3);
       cal = 5;
     }
    else{
       str3 = "";
       t3.setText(str3);
     }
  }
});
beql.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
    if (cal == 1) {
       no1 = Double.parseDouble(str1);
       no2 = Double.parseDouble(str2);
       no2 += no1;
       str2 = new String(String.valueOf(no2));
       t2.setText(str2);
       str1 = "";
       str3 = "";
       t1.setText(str1);
       t3.setText(str3);
     }
    else if (cal == 2) {
       no1 = Double.parseDouble(str1);
       no2 = Double.parseDouble(str2);
       no2 = no1;
       //abs(no2);
       str2 = new String(String.valueOf(no2));
       t2.setText(str2);
       str1 = "";
       str3 = "";
       t1.setText(str1);
       t3.setText(str3);
    else if (cal == 3) {
       no1 = Double.parseDouble(str1);
       no2 = Double.parseDouble(str2);
```

```
no2 *= no1;
            str2 = new String(String.valueOf(no2));
            t2.setText(str2);
            str1 = "";
            str3 = "";
            t1.setText(str1);
            t3.setText(str3);
         else if (cal == 4) {
            no1 = Double.parseDouble(str1);
            no2 = Double.parseDouble(str2);
            no2 = no1;
            str2 = new String(String.valueOf(no2));
            t2.setText(str2);
            str1 = "";
            str3 = "";
            t1.setText(str1);
            t3.setText(str3);
         else if( cal == 5){
            no1 = Double.parseDouble(str1);
            no2 = Double.parseDouble(str2);
            no2 \% = no1;
            str2 = new String(String.valueOf(no2));
            t2.setText(str2);
            str1 = "";
            str3 = "";
            t1.setText(str1);
            t3.setText(str3);
         else if (str3.isEmpty() || str2.isEmpty() || str1 .isEmpty()){
            Toast.makeText(MainActivity.this, "Something went wrong",
Toast.LENGTH SHORT).show();
          }
         else {
            Toast.makeText(MainActivity.this, "Something went wrong",
Toast.LENGTH SHORT).show();
         }
       }
    });
    ballclr.setOnClickListener(new View.OnClickListener() {
       @Override
       public void onClick(View v) {
         str2 ="";
         str1 ="":
         str3 ="";
         t1.setText(str1);
```

```
t2.setText(str2);
          t3.setText(str3);
     });
     bclr.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
          str2 ="";
          str1 ="";
          str3 ="";
          t1.setText(str1);
          t2.setText(str2);
          t3.setText(str3);
     });
     bpoint.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
          str2 += ".";
          t2.setText(str2);
     });
}
```

Output:





