#### **Calculator:**

<Button

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
  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">
  <Button
    android:id="@+id/button1"
    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="312dp"
    android:layout_marginRight="312dp"
    android:layout_marginBottom="425dp"
    android:textSize="20dp"
    android:text="1"/>
  <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="210dp"
    android:layout_marginRight="210dp"
    android:layout marginBottom="427dp"
    android:textSize="20dp"
    android:text="2"/>
  <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="109dp"
    android:layout marginRight="109dp"
    android:layout_marginBottom="427dp"
    android:textSize="20dp"
    android:text="3"/>
```

android:id="@+id/div"
android:layout\_width="wrap\_content"
android:layout\_height="wrap\_content"
android:layout\_alignParentEnd="true"
android:layout\_alignParentBottom="true"
android:layout\_alignParentBottom="true"
android:layout\_marginEnd="5dp"
android:layout\_marginRight="5dp"
android:layout\_marginBottom="425dp"
android:textSize="20dp"
android:text="/"/>

### <Button

android:id="@+id/button4"
android:layout\_width="wrap\_content"
android:layout\_height="wrap\_content"
android:layout\_alignParentEnd="true"
android:layout\_alignParentBottom="true"
android:layout\_alignParentBottom="true"
android:layout\_marginEnd="310dp"
android:layout\_marginRight="310dp"
android:layout\_marginBottom="339dp"
android:textSize="20dp"
android:text="4"/>

## <Button

android:id="@+id/button5"
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="210dp"
android:layout\_marginRight="210dp"
android:layout\_marginBottom="338dp"
android:textSize="20dp"
android:text="5"/>

### <Button

android:id="@+id/button6"
android:layout\_width="wrap\_content"
android:layout\_height="wrap\_content"
android:layout\_alignParentEnd="true"
android:layout\_alignParentBottom="true"
android:layout\_alignParentBottom="true"
android:layout\_marginEnd="109dp"
android:layout\_marginRight="109dp"
android:layout\_marginBottom="336dp"
android:textSize="20dp"
android:text="6"/>

### <Button

android:id="@+id/mul"
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="7dp"
android:layout\_marginRight="7dp"
android:layout\_marginBottom="333dp"
android:textSize="25dp"
android:text="\*"/>

#### <Button

android:id="@+id/button7"
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="310dp"
android:layout\_marginRight="310dp"
android:layout\_marginBottom="246dp"
android:textSize="20dp"
android:text="7"/>

#### <Button

android:id="@+id/button8"
android:layout\_width="wrap\_content"
android:layout\_height="wrap\_content"
android:layout\_alignParentEnd="true"
android:layout\_alignParentBottom="true"
android:layout\_alignParentBottom="true"
android:layout\_marginEnd="213dp"
android:layout\_marginRight="213dp"
android:layout\_marginBottom="246dp"
android:textSize="20dp"
android:text="8"/>

### <Button

android:id="@+id/button9"
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="113dp"
android:layout\_marginRight="113dp"
android:layout\_marginBottom="246dp"

```
android:textSize="20dp" android:text="9" />
```

### <Button

android:id="@+id/sub"
android:layout\_width="wrap\_content"
android:layout\_height="wrap\_content"
android:layout\_alignParentEnd="true"
android:layout\_alignParentBottom="true"
android:layout\_alignParentBottom="true"
android:layout\_marginEnd="9dp"
android:layout\_marginRight="9dp"
android:layout\_marginBottom="246dp"
android:text="-"
android:textSize="25dp"/>

## <Button

android:id="@+id/clear"
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="312dp"
android:layout\_marginRight="312dp"
android:layout\_marginBottom="160dp"
android:textSize="20dp"
android:text="C"/>

# <Button

android:id="@+id/button0"
android:layout\_width="wrap\_content"
android:layout\_height="wrap\_content"
android:layout\_alignParentEnd="true"
android:layout\_alignParentBottom="true"
android:layout\_alignParentBottom="true"
android:layout\_marginEnd="214dp"
android:layout\_marginRight="214dp"
android:layout\_marginBottom="161dp"
android:textSize="20dp"
android:text="0"/>

#### <Button

android:id="@+id/equal" 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="114dp"

```
android:layout_marginRight="114dp"
    android:layout_marginBottom="162dp"
    android:textSize="25dp"
    android:text="=" />
  <Button
    android:id="@+id/add"
    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="10dp"
    android:layout_marginRight="10dp"
    android:layout_marginBottom="161dp"
    android:textSize="25dp"
    android:text="+"/>
  <TextView
    android:id="@+id/input"
    android:layout_width="366dp"
    android:layout_height="88dp"
    android:layout_alignParentEnd="true"
    android:layout_alignParentRight="true"
    android:layout alignParentBottom="true"
    android:layout_marginEnd="23dp"
    android:layout_marginRight="23dp"
    android:layout_marginBottom="566dp"
    android:background="#33ffff"
    android:textSize="23dp"
    android:textStyle="bold" />
</RelativeLayout>
Java:
package com.example.calc;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity{
```

```
Button b1,b2,b3,b4,b5,b6,b7,b8,b9,b0,badd,bsub,bmul,bdiv,bclear,bequal;
TextView data;
float val1.val2:
Boolean addition, subtraction, multiplication, division;
@Override
protected void onCreate(Bundle savedInstanceState) {
  super.onCreate(savedInstanceState);
  setContentView(R.layout.activity_main);
  setView();
  b0.setOnClickListener(new View.OnClickListener() {
     @Override
    public void onClick(View v) {
       data.setText(data.getText()+"0");
  });
  b1.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
       data.setText(data.getText()+"1");
  });
  b2.setOnClickListener(new View.OnClickListener() {
     @Override
    public void onClick(View v) {
       data.setText(data.getText()+"2");
     }
  });
  b3.setOnClickListener(new View.OnClickListener() {
     @Override
    public void onClick(View v) {
       data.setText(data.getText()+"3");
    }
  });
  b4.setOnClickListener(new View.OnClickListener() {
     @Override
    public void onClick(View v) {
       data.setText(data.getText()+"4");
  });
  b5.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
       data.setText(data.getText()+"5");
  });
  b6.setOnClickListener(new View.OnClickListener() {
     @Override
    public void onClick(View v) {
```

```
data.setText(data.getText()+"6");
  }
});
b7.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
    data.setText(data.getText()+"7");
});
b8.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
    data.setText(data.getText()+"8");
});
b9.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
    data.setText(data.getText()+"9");
});
badd.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
    if (data == null) {
       data.setText(null);
    val1 = Float.parseFloat(data.getText() + "");
    addition = true;
    data.setText(null);
  }
});
bsub.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
    if (data == null){
       data.setText(null);
    val1=Float.parseFloat(data.getText()+"");
    subtraction = true;
    data.setText(null);
});
bmul.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
    if(data == null)
       data.setText(null);
    val1=Float.parseFloat(data.getText()+"");
```

```
multiplication = true;
       data.setText(null);
     }
  });
  bdiv.setOnClickListener(new View.OnClickListener() {
     @Override
     public void onClick(View v) {
       if(data == null)
          data.setText(null);
       val1=Float.parseFloat(data.getText()+"");
       division = true;
       data.setText(null);
     }
  });
  bequal.setOnClickListener(new View.OnClickListener() {
     @Override
     public void onClick(View v) {
       val2=Float.parseFloat(data.getText()+"");
       if(addition == true)
          data.setText(val1 + val2 + "");
          addition=false;
       else if(subtraction == true)
          data.setText(val1 - val2 + "");
          subtraction=false;
       else if(multiplication == true)
          data.setText(val1 * val2 + "");
          multiplication=false;
       else if(division == true)
          data.setText(val1 / val2 + "");
          division=false;
       }
     }
  });
  bclear.setOnClickListener(new View.OnClickListener() {
     @Override
     public void onClick(View v) {
       data.setText(null);
       //result.setText(null);
     }
  });
void setView()
```

```
{
    b0=(Button) findViewById(R.id.button0);
    b1=(Button) findViewById(R.id.button1);
    b2=(Button) findViewById(R.id.button2);
    b3=(Button) findViewById(R.id.button3);
    b4=(Button) findViewById(R.id.button4);
    b5=(Button) findViewById(R.id.button5);
    b6=(Button) findViewById(R.id.button6);
    b7=(Button) findViewById(R.id.button7);
    b8=(Button) findViewById(R.id.button8);
    b9=(Button) findViewById(R.id.button9);
    badd=(Button) findViewById(R.id.add);
    bsub=(Button) findViewById(R.id.sub);
    bmul=(Button) findViewById(R.id.mul);
    bdiv=(Button) findViewById(R.id.div);
    bequal=(Button) findViewById(R.id.equal);
    bclear=(Button) findViewById(R.id.clear);
    data=(TextView) findViewById(R.id.input);
    //result=(TextView) findViewById(R.id.output);
  }
}
```