# Android Calculator App - Source Code

## activity\_main.xml

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 android:padding="16dp"  
 android:background="#444444"  
 android:gravity="center\_horizontal">  
  
 <TextView  
 android:id="@+id/tv\_title"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Calculator"  
 android:textSize="50sp"  
 android:textColor="#FFFFFF"  
 android:layout\_marginTop="50dp"  
 android:textStyle="bold"  
 android:layout\_marginBottom="40dp" />  
  
 <EditText  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:id="@+id/tv"  
 android:textSize="42sp"  
 android:inputType="none"  
 android:focusable="false"  
 android:cursorVisible="false"  
 android:layout\_marginTop="60dp"  
 android:layout\_marginBottom="190dp"  
 android:gravity="end"  
 android:textColor="#000000"  
 android:background="#f0f0f0"/>  
  
 <!-- Rows of Buttons Omitted for Brevity -->  
 <!-- Retain the same structure and styling for buttons -->  
</LinearLayout>

## MainActivity.java

package com.example.calculator;  
  
import android.app.Activity;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
  
public class MainActivity extends Activity implements View.OnClickListener {  
  
 Button nine, eig, sev, six, fiv, four, thr, two, one, zero, dot, plus, mins, div, mul, eq, cl;  
 EditText et;  
  
 String currentInput = "0";  
 double result = 0;  
 char lastOperator = ' ';  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.activity\_main);  
  
 nine = findViewById(R.id.b9);  
 eig = findViewById(R.id.b8);  
 sev = findViewById(R.id.b7);  
 six = findViewById(R.id.b6);  
 fiv = findViewById(R.id.b5);  
 four = findViewById(R.id.b4);  
 thr = findViewById(R.id.b3);  
 two = findViewById(R.id.b2);  
 one = findViewById(R.id.b1);  
 zero = findViewById(R.id.b0);  
 dot = findViewById(R.id.bd);  
 plus = findViewById(R.id.bpl);  
 mins = findViewById(R.id.bmin);  
 div = findViewById(R.id.bdiv);  
 mul = findViewById(R.id.bmul);  
 eq = findViewById(R.id.beq);  
 cl = findViewById(R.id.bcl);  
 et = findViewById(R.id.tv);  
  
 Button[] buttons = {nine, eig, sev, six, fiv, four, thr, two, one, zero,  
 dot, plus, mins, div, mul, eq, cl};  
 for (Button b : buttons) b.setOnClickListener(this);  
 }  
  
 @Override  
 public void onClick(View v) {  
 int id = v.getId();  
  
 if (id == R.id.b0 || id == R.id.b1 || id == R.id.b2 || id == R.id.b3 ||  
 id == R.id.b4 || id == R.id.b5 || id == R.id.b6 || id == R.id.b7 ||  
 id == R.id.b8 || id == R.id.b9) {  
  
 String inputDigit = ((Button) v).getText().toString();  
 if (currentInput.equals("0")) currentInput = inputDigit;  
 else currentInput += inputDigit;  
 et.setText(currentInput);  
 if (lastOperator == '=') {  
 result = 0;  
 lastOperator = ' ';  
 }  
  
 } else if (id == R.id.bd) {  
 if (!currentInput.contains(".")) {  
 currentInput += ".";  
 et.setText(currentInput);  
 }  
 } else if (id == R.id.bpl) {  
 compute();  
 lastOperator = '+';  
 } else if (id == R.id.bmin) {  
 compute();  
 lastOperator = '-';  
 } else if (id == R.id.bdiv) {  
 compute();  
 lastOperator = '/';  
 } else if (id == R.id.bmul) {  
 compute();  
 lastOperator = '\*';  
 } else if (id == R.id.beq) {  
 compute();  
 lastOperator = '=';  
 } else if (id == R.id.bcl) {  
 result = 0;  
 currentInput = "0";  
 lastOperator = ' ';  
 et.setText("0");  
 }  
 }  
  
 private void compute() {  
 try {  
 double inputNumber = Double.parseDouble(currentInput);  
 currentInput = "0";  
  
 switch (lastOperator) {  
 case ' ':  
 result = inputNumber;  
 break;  
 case '+':  
 result += inputNumber;  
 break;  
 case '-':  
 result -= inputNumber;  
 break;  
 case '\*':  
 result \*= inputNumber;  
 break;  
 case '/':  
 if (inputNumber != 0) result /= inputNumber;  
 else {  
 et.setText("Error");  
 return;  
 }  
 break;  
 case '=':  
 break;  
 }  
 et.setText(String.valueOf(result));  
 } catch (NumberFormatException e) {  
 et.setText("Error");  
 }  
 }  
}