Java code

package com.example.myapplication;  
  
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 b0,b1,b2,b3,b4,b5,b6,b7,b8,b9;  
 Button bdo,bad,bmi,bdi,bmu,beq,backs,clear;  
 TextView ip,op;  
 private static final char *ADDITION* = '+';  
 private static final char *SUBTRACTION* = '-';  
 private static final char *MULTIPLICATION* = '\*';  
 private static final char *DIVISION* = '/';  
 private char currentSymbol;  
 private double firstValue = Double.*NaN*;  
 private double secondValue;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 b0=(Button) findViewById(R.id.*b0*);  
 b1=(Button) findViewById(R.id.*b1*);  
 b2=(Button) findViewById(R.id.*b2*);  
 b3=(Button) findViewById(R.id.*b3*);  
 b4=(Button) findViewById(R.id.*b4*);  
 b5=(Button) findViewById(R.id.*b5*);  
 b6=(Button) findViewById(R.id.*b6*);  
 b7=(Button) findViewById(R.id.*b7*);  
 b8=(Button) findViewById(R.id.*b8*);  
 b9=(Button) findViewById(R.id.*b9*);  
  
 bdo=(Button) findViewById(R.id.*bdot*);  
 bad=(Button) findViewById(R.id.*badd*);  
 bmi=(Button) findViewById(R.id.*bdiff*);  
 bdi=(Button) findViewById(R.id.*bdiv*);  
 bmu=(Button) findViewById(R.id.*bmul*);  
 beq=(Button) findViewById(R.id.*beq*);  
 backs=(Button) findViewById(R.id.*backsp*);  
 clear=(Button) findViewById(R.id.*clear*);  
  
 ip=(TextView) findViewById(R.id.*input*);  
 op=(TextView) findViewById(R.id.*output*);  
  
 b0.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 ip.append(ip.getText() + "0");  
 }  
 });  
 b1.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 ip.setText(ip.getText() + "1");  
 }  
 });  
 b2.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 ip.setText(ip.getText() + "2");  
 }  
 });  
 b3.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 ip.setText(ip.getText() + "3");  
 }  
 });  
 b4.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 ip.setText(ip.getText() + "4");  
 }  
 });  
 b5.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 ip.setText(ip.getText() + "5");  
 }  
 });  
 b6.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 ip.setText(ip.getText() + "6");  
 }  
 });  
 b7.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 ip.setText(ip.getText() + "7");  
 }  
 });  
 b8.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 ip.setText(ip.getText() + "8");  
 }  
 });  
 b9.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 ip.setText(ip.getText() + "9");  
 }  
 });  
 backs.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 String currentText = ip.getText().toString();  
 if (currentText.length() > 0) {  
 ip.setText(currentText.substring(0, currentText.length() - 1));  
 }  
 }  
 });  
 bad.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 allCalculations();  
 currentSymbol = *ADDITION*;  
 op.setText(firstValue + "+");  
 ip.setText(null);  
 }  
 });  
 bmi.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 allCalculations();  
 currentSymbol = *SUBTRACTION*;  
 op.setText(firstValue + "-");  
 ip.setText(null);  
 }  
 });  
 bmu.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 allCalculations();  
 currentSymbol = *MULTIPLICATION*;  
 op.setText(firstValue + "x");  
 ip.setText(null);  
 }  
 });  
 bdi.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 allCalculations();  
 currentSymbol = *DIVISION*;  
 op.setText(firstValue + "/");  
 ip.setText(null);  
 }  
 });  
 bdo.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 ip.setText(ip.getText() + ".");  
 }  
 });  
 clear.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 if (ip.getText().length() > 0) {  
 CharSequence currentText = ip.getText();  
 ip.setText(currentText.subSequence(0, currentText.length() - 1));  
 } else {  
 firstValue = Double.*NaN*;  
 secondValue = Double.*NaN*;  
 ip.setText("");  
 op.setText("");  
 }  
 }  
 });  
 beq.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 allCalculations();  
 op.setText(String.*valueOf*(firstValue));  
 firstValue = Double.*NaN*;  
 currentSymbol = '0';  
 }  
 });  
 }  
  
 private void allCalculations() {  
 if (!Double.*isNaN*(firstValue)) {  
 secondValue = Double.*parseDouble*(ip.getText().toString());  
 ip.setText(null);  
 if (currentSymbol == *ADDITION*)  
 firstValue = this.firstValue + secondValue;  
 else if (currentSymbol == *SUBTRACTION*)  
 firstValue = this.firstValue - secondValue;  
 else if (currentSymbol == *MULTIPLICATION*)  
 firstValue = this.firstValue \* secondValue;  
 else if (currentSymbol == *DIVISION*)  
 firstValue = this.firstValue / secondValue;  
 } else {  
 try {  
 firstValue = Double.*parseDouble*(ip.getText().toString());  
 } catch (Exception e) {  
 }  
 }  
 }  
}

Xml code

<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout 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:id="@+id/output"  
 android:layout\_width="414dp"  
 android:layout\_height="114dp"  
 android:layout\_gravity="end"  
 android:padding="10dp"  
 android:text=""  
 android:textSize="60sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.0"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.286" />  
  
 <androidx.gridlayout.widget.GridLayout  
 android:id="@+id/gridLayout"  
 android:layout\_width="376dp"  
 android:layout\_height="438dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.49"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.992">  
  
 <Button  
 android:id="@+id/b7"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="63dp"  
 android:text="7"  
 app:layout\_column="0"  
 app:layout\_row="1" />  
  
 <Button  
 android:id="@+id/backsp"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Backspace"  
 app:layout\_column="1"  
 app:layout\_columnSpan="2"  
 app:layout\_columnWeight="1"  
 app:layout\_row="0" />  
  
 <Button  
 android:id="@+id/b8"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="59dp"  
 android:text="8"  
 app:layout\_column="1"  
 app:layout\_row="1" />  
  
 <Button  
 android:id="@+id/b9"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="71dp"  
 android:text="9"  
 app:layout\_column="2"  
 app:layout\_row="1" />  
  
 <Button  
 android:id="@+id/b4"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="64dp"  
 android:text="4"  
 app:layout\_column="0"  
 app:layout\_row="2" />  
  
 <Button  
 android:id="@+id/b5"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="74dp"  
 android:text="5"  
 app:layout\_column="1"  
 app:layout\_row="2" />  
  
 <Button  
 android:id="@+id/b6"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="76dp"  
 android:text="6"  
 app:layout\_column="2"  
 app:layout\_row="2" />  
  
 <Button  
 android:id="@+id/b1"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="65dp"  
 android:text="1"  
 app:layout\_column="0"  
 app:layout\_row="3" />  
  
 <Button  
 android:id="@+id/b2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="77dp"  
 android:text="2"  
 app:layout\_column="1"  
 app:layout\_row="3" />  
  
 <Button  
 android:id="@+id/b3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="75dp"  
 android:text="3"  
 app:layout\_column="2"  
 app:layout\_row="3" />  
  
 <Button  
 android:id="@+id/bmul"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="66dp"  
 android:text="x"  
 app:layout\_column="3"  
 app:layout\_row="1" />  
  
 <Button  
 android:id="@+id/clear"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="71dp"  
 android:text="Clear"  
 app:layout\_column="0"  
 app:layout\_row="0" />  
  
 <Button  
 android:id="@+id/bdiv"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="62dp"  
 android:text="÷"  
 app:layout\_column="3"  
 app:layout\_row="0" />  
  
 <Button  
 android:id="@+id/bdiff"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="69dp"  
 android:text="-"  
 app:layout\_column="3"  
 app:layout\_row="2" />  
  
 <Button  
 android:id="@+id/badd"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="71dp"  
 android:text="+"  
 app:layout\_column="3"  
 app:layout\_row="3" />  
  
 <Button  
 android:id="@+id/b0"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="72dp"  
 android:text="0"  
 app:layout\_column="0"  
 app:layout\_row="4" />  
  
 <Button  
 android:id="@+id/bdot"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="75dp"  
 android:text="."  
 app:layout\_column="1"  
 app:layout\_row="4" />  
  
 <Button  
 android:id="@+id/beq"  
 android:layout\_width="197dp"  
 android:layout\_height="69dp"  
 android:text="="  
 app:layout\_column="2"  
 app:layout\_columnSpan="2"  
 app:layout\_columnWeight="1"  
 app:layout\_row="4" />  
  
 </androidx.gridlayout.widget.GridLayout>  
  
 <TextView  
 android:id="@+id/t11"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Calculator"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.461"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.023" />  
  
 <TextView  
 android:id="@+id/input"  
 android:layout\_width="394dp"  
 android:layout\_height="121dp"  
 android:layout\_gravity="end"  
 android:padding="10dp"  
 android:text=""  
 android:textSize="40sp"  
 tools:layout\_editor\_absoluteX="8dp"  
 tools:layout\_editor\_absoluteY="49dp" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

Output



