## XML Code

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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"
    android:textAlignment="center"
    android:textDirection="firstStrong"
    tools:context=".MainActivity">
    <Button
        android:id="@+id/btn dot"
        android:layout width="86dp"
        android:layout height="49dp"
        android:text="."
        android:textSize="24sp"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout_constraintHorizontal bias="0.498"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent"
        app:layout constraintVertical bias="0.89" />
    <Button
        android:id="@+id/btn eight"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:text="8"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.498"
        app:layout_constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent"
        app:layout constraintVertical bias="0.543" />
    <But.ton
        android:id="@+id/btn seven"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:text="7"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout_constraintHorizontal bias="0.157"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent"
        app:layout_constraintVertical bias="0.543" />
    <Button
        android:id="@+id/btn nine"
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:text="9"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintHorizontal bias="0.869"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent"
        app:layout constraintVertical bias="0.543" />
```

```
<Button
    android:id="@+id/btn two"
    android:layout_width="wrap_content"
    android:layout height="wrap content"
    android:text="2"
    app:layout_constraintBottom toBottomOf="parent"
    app:layout_constraintEnd toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.498"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout constraintVertical bias="0.651" />
<Button
   android:id="@+id/btn one"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="1"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.157"
    app:layout constraintStart toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout constraintVertical bias="0.661" />
<Button
   android:id="@+id/btn three"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="3"
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.869"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.661" />
<Button
    android:id="@+id/btn five"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="5"
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout_constraintHorizontal bias="0.498"
    app:layout_constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.777" />
<Button
    android:id="@+id/btn multi"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="\overline{*}"
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.904"
    app:layout_constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.428" />
```

```
<Button
    android:id="@+id/btn minus"
    android:layout_width="wrap_content"
    android:layout height="wrap content"
    android:text="-"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd toEndOf="parent"
    app:layout_constraintHorizontal bias="0.544"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical bias="0.428" />
<Button
    android:id="@+id/btn four"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="4"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.157"
    app:layout_constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.777" />
<Button
   android:id="@+id/btn eql"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="="
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.869"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.32" />
<TextView
    android:id="@+id/textView"
    android:layout width="wrap content"
    android:layout height="wrap content"
   android:text="CALCULATOR"
   android:textColor="#E64A19"
    android:textSize="34sp"
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout_constraintHorizontal bias="0.497"
    app:layout_constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.023" />
<TextView
    android:id="@+id/textView2"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="Result"
    android:textAlignment="center"
    android:textSize="24sp"
    app:layout constraintBottom toBottomOf="parent"
    app:layout_constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.098"
    app:layout constraintStart toStartOf="parent"
```

```
app:layout_constraintTop toTopOf="parent"
    app:layout_constraintVertical bias="0.145" />
<EditText
   android:id="@+id/ET Result"
    android:layout width="227dp"
    android:layout height="111dp"
    android:ems="10"
    android:hint="Enter Number"
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal bias="0.831"
    app:layout_constraintStart toStartOf="parent"
    app:layout_constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.112" />
<Button
   android:id="@+id/btn plus"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="+"
    app:layout constraintBottom toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout constraintHorizontal bias="0.157"
    app:layout constraintStart toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical bias="0.446" />
<Button
   android:id="@+id/btn six"
    android:layout width="wrap content"
    android:layout height="wrap content"
   android:text="6"
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.886"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.777" />
<Button
    android:id="@+id/btn zero"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="0"
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.16"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.89" />
<But.ton
    android:id="@+id/btn divide"
    android:layout width="wrap content"
    android:layout height="wrap content"
   android:text="\overline{/}"
    app:layout_constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.145"
```

## **JAVA Code**

```
package com.example.calculator;
import android.annotation.SuppressLint;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import androidx.appcompat.app.AppCompatActivity;
public class
MainActivity extends AppCompatActivity {
    Button
b1, b2, b3, b4, b5, b6, b7, b8, b9, b0, bdot, bc1, bplus, bminus, bmul
ti, bdiv, beql;
    EditText ET Result;
    Float v1, v2;
    Boolean add, sub, multi, div;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
        b1 = (Button) findViewById (R.id.btn one);
        b2 = (Button) findViewById(R.id.btn two);
        b3= (Button) findViewById(R.id.btn three);
        b4=(Button)findViewById(R.id.btn four);
        b5=(Button)findViewById(R.id.btn five);
        b6=(Button) findViewById(R.id.btn six);
        b7=(Button)findViewById(R.id.btn seven);
        b8=(Button)findViewById(R.id.btn eight);
```

```
b9=(Button)findViewById(R.id.btn nine);
        b0=(Button)findViewById(R.id.btn zero);
        bdot=(Button)findViewById(R.id.btn dot);
        bcl=(Button)findViewById(R.id.btn clear);
        bplus = (Button) findViewById(R.id.btn plus);
        bminus = (Button) findViewById(R.id.btn minus);
        bmulti = (Button) findViewById(R.id.btn multi);
        bdiv = (Button) findViewById(R.id.btn divide);
        beql = (Button) findViewById(R.id.btn eql);
        ET Result = (EditText)
findViewById(R.id.ET Result);
       b1.setOnClickListener(new View.OnClickListener()
{
           @SuppressLint("SetTextI18n")
           @Override
           public void onClick(View view) {
ET Result.setText(ET Result.getText()+"1");
       });
       b2.setOnClickListener(new View.OnClickListener()
{
            @SuppressLint("SetTextI18n")
            @Override
            public void onClick(View view)
ET Result.setText(ET Result.getText()+"2");
            }
        });
        b3.setOnClickListener(new View.OnClickListener()
{
            @SuppressLint("SetTextI18n")
            @Override
            public void onClick(View view) {
ET Result.setText(ET Result.getText()+"3");
        });
        b4.setOnClickListener(new View.OnClickListener()
{
            @SuppressLint("SetTextI18n")
            @Override
            public void onClick(View view) {
ET Result.setText(ET Result.getText()+"4");
```

```
});
        b5.setOnClickListener(new View.OnClickListener()
{
            @SuppressLint("SetTextI18n")
            @Override
            public void onClick(View view) {
ET Result.setText(ET Result.getText()+"5");
        });
        b6.setOnClickListener(new View.OnClickListener()
{
            @SuppressLint("SetTextI18n")
            @Override
            public void onClick(View view) {
ET Result.setText(ET Result.getText()+"6");
        });
        b7.setOnClickListener(new View.OnClickListener()
{
            @SuppressLint("SetTextI18n")
            @Override
            public void onClick(View view) {
ET Result.setText(ET Result.getText()+"7");
        });
        b8.setOnClickListener(new View.OnClickListener()
{
            @SuppressLint("SetTextI18n")
            @Override
            public void onClick(View view) {
ET Result.setText(ET Result.getText()+"8");
        });
        b9.setOnClickListener(new View.OnClickListener()
{
            @SuppressLint("SetTextI18n")
            @Override
            public void onClick(View view) {
ET Result.setText(ET Result.getText()+"9");
        });
        b0.setOnClickListener(new View.OnClickListener()
```

```
{
            @SuppressLint("SetTextI18n")
            @Override
            public void onClick(View view) {
ET Result.setText(ET Result.getText()+"0");
        });
        bdot.setOnClickListener(new
View.OnClickListener() {
            @SuppressLint("SetTextI18n")
            @Override
            public void onClick(View view) {
ET Result.setText(ET Result.getText()+".");
        });
        bcl.setOnClickListener(new
View.OnClickListener() {
            @SuppressLint("SetTextI18n")
            @Override
            public void onClick(View view) {
                ET Result.setText(ET Result.getText()+"
");
            }
        });
        bplus.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View view) {
                    v1 =
Float.parseFloat(ET Result.getText()+"");
                    add = true;
                    ET Result.setText(null);
            }
        });
        bminus.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View view) {
                v1 =
Float.parseFloat(ET Result.getText()+"");
                sub = true;
                ET Result.setText(null);
```

```
}
        });
        bmulti.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View view) {
                v1 =
Float.parseFloat(ET Result.getText()+"");
                multi = true;
                ET Result.setText(null);
            }
        });
        bdiv.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View view) {
                v1 =
Float.parseFloat(ET Result.getText()+"");
                div = true;
                ET Result.setText(null);
            }
        });
        begl.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View view) {
                v2 =
Float.parseFloat(String.valueOf(ET Result.getText()));
                if (add) {
                    ET Result.setText(v1+v2+"");
                    add = false;
                }
                 if (sub) {
                    ET Result.setText(v1-v2+"");
                    sub = false;
                if (multi) {
                    ET Result.setText(v1*v2+"");
                    multi = false;
                }
                if (div) {
                    ET Result.setText(v1/v2+"");
```

```
div = false;
}
});
}
```