***XML CODE:***

*<?*xml version="1.0" encoding="utf-8"*?>*<RelativeLayout 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">  
 <EditText  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:hint="ENTER NUMBER"  
 android:id="@+id/et1"  
 android:layout\_centerHorizontal="true"  
 android:layout\_marginTop="250dp"/>  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="vertical"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginBottom="40dp">  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal">  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="C"  
 android:backgroundTint="#E41818"  
 android:layout\_marginLeft="10dp"  
 android:id="@+id/bc"/>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="("  
 android:backgroundTint="#00BCD4"  
 android:layout\_marginLeft="10dp"  
 android:id="@+id/bopen"/>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text=")"  
 android:backgroundTint="#00BCD4"  
 android:layout\_marginLeft="10dp"  
 android:id="@+id/bclose"/>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="/"  
 android:backgroundTint="#FF5722"  
 android:layout\_marginLeft="10dp"  
 android:id="@+id/bdiv"/>  
  
 </LinearLayout>  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal">  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="7"  
 android:layout\_marginLeft="10dp"  
 android:backgroundTint="#00BCD4"  
 android:id="@+id/b7"/>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="8"  
 android:backgroundTint="#00BCD4"  
 android:layout\_marginLeft="10dp"  
 android:id="@+id/b8"/>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="9"  
 android:layout\_marginLeft="10dp"  
 android:backgroundTint="#00BCD4"  
 android:id="@+id/b9"/>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="\*"  
 android:layout\_marginLeft="10dp"  
 android:backgroundTint="#FF5722"  
 android:id="@+id/bmul"/>  
  
 </LinearLayout>  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal">  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="4"  
 android:layout\_marginLeft="10dp"  
 android:backgroundTint="#00BCD4"  
 android:id="@+id/b4"/>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="5"  
 android:layout\_marginLeft="10dp"  
 android:backgroundTint="#00BCD4"  
 android:id="@+id/b5"/>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="6"  
 android:layout\_marginLeft="10dp"  
 android:backgroundTint="#00BCD4"  
 android:id="@+id/b6"/>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="+"  
 android:layout\_marginLeft="10dp"  
 android:backgroundTint="#FF5722"  
 android:id="@+id/bplus"/>  
  
 </LinearLayout>  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal">  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="1"  
 android:layout\_marginLeft="10dp"  
 android:backgroundTint="#00BCD4"  
 android:id="@+id/b1"/>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="2"  
 android:layout\_marginLeft="10dp"  
 android:backgroundTint="#00BCD4"  
 android:id="@+id/b2"/>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="3"  
 android:layout\_marginLeft="10dp"  
 android:backgroundTint="#00BCD4"  
 android:id="@+id/b3"/>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="-"  
 android:layout\_marginLeft="10dp"  
 android:backgroundTint="#FF5722"  
 android:id="@+id/bsub"/>  
  
 </LinearLayout>  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:orientation="horizontal">  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="AC"  
 android:layout\_marginLeft="10dp"  
 android:backgroundTint="#F44336"  
 android:id="@+id/bac"/>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="0"  
 android:layout\_marginLeft="10dp"  
 android:backgroundTint="#03A9F4"  
 android:id="@+id/b0"/>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="."  
 android:layout\_marginLeft="10dp"  
 android:backgroundTint="#03A9F4"  
 android:id="@+id/bdot"/>  
 <Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="="  
 android:layout\_marginLeft="10dp"  
 android:backgroundTint="#FF5722"  
 android:id="@+id/bequals"/>  
  
 </LinearLayout>  
 </LinearLayout>  
  
</RelativeLayout>

***JAVA CODE:***

package com.example.calculator;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
import android.widget.EditText;  
  
public class MainActivity extends AppCompatActivity {  
 float f1,f2,f;  
 Boolean add,sub,mul,div;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 *//creation of objects(buttons)* Button b1 =findViewById(R.id.*b1*);  
 Button b2 =findViewById(R.id.*b2*);  
 Button b3 =findViewById(R.id.*b3*);  
 Button b4 =findViewById(R.id.*b4*);  
 Button b5 =findViewById(R.id.*b5*);  
 Button b6 =findViewById(R.id.*b6*);  
 Button b7 =findViewById(R.id.*b7*);  
 Button b8 =findViewById(R.id.*b8*);  
 Button b9 =findViewById(R.id.*b9*);  
 Button b0 =findViewById(R.id.*b0*);  
 Button badd =findViewById(R.id.*bplus*);  
 Button bsub =findViewById(R.id.*bsub*);  
 Button bmul =findViewById(R.id.*bmul*);  
 Button bdiv =findViewById(R.id.*bdiv*);  
 Button beq =findViewById(R.id.*bequals*);  
 Button bdot =findViewById(R.id.*bdot*);  
 Button bc =findViewById(R.id.*bc*);  
 Button bac =findViewById(R.id.*bac*);  
  
 *// create object for edit text* EditText et=findViewById(R.id.*et1*);  
 *//onclick for all buttons* b1.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 et.setText(et.getText()+"1");  
 }  
 });  
 b2.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 et.setText(et.getText()+"2");  
 }  
 });  
 b3.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 et.setText(et.getText()+"3");  
 }  
 });  
 b4.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 et.setText(et.getText()+"4");  
 }  
 });  
 b5.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 et.setText(et.getText()+"5");  
 }  
 });  
 b6.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 et.setText(et.getText()+"6");  
 }  
 });  
 b7.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 et.setText(et.getText()+"7");  
 }  
 });  
 b8.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 et.setText(et.getText()+"8");  
 }  
 });  
 b9.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 et.setText(et.getText()+"9");  
 }  
 });  
 b0.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 et.setText(et.getText()+"0");  
 }  
 });  
 bc.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 et.setText("");  
 }  
 });  
 bac.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 et.setText("");  
 }  
 });  
 bdot.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 et.setText(".");  
 }  
 });  
 *//logics for +,-,\*,/* badd.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 f1=Float.*parseFloat*(et.getText().toString());  
 et.setText("");  
 add=true;  
 }  
 });  
 bsub.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 f1=Float.*parseFloat*(et.getText().toString());  
 et.setText("");  
 sub=true;  
 }  
 });  
 bmul.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 f1=Float.*parseFloat*(et.getText().toString());  
 et.setText("");  
 mul=true;  
 }  
 });  
 bdiv.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 f1=Float.*parseFloat*(et.getText().toString());  
 et.setText("");  
 div=true;  
 }  
 });  
 *// logic for =* beq.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 if (add==true){  
 f2=Float.*parseFloat*(et.getText().toString());  
 f=f1+f2;  
 String mb= String.*valueOf*(f);  
 et.setText(mb);  
 add=false;  
 } else if (sub==true) {  
 f2=Float.*parseFloat*(et.getText().toString());  
 f=f1-f2;  
 String mb= String.*valueOf*(f);  
 et.setText(mb);  
 sub=false;  
  
 } else if (mul== true) {  
 f2=Float.*parseFloat*(et.getText().toString());  
 f=f1\*f2;  
 String mb= String.*valueOf*(f);  
 et.setText(mb);  
 mul=false;  
 } else if (div == true) {  
 f2=Float.*parseFloat*(et.getText().toString());  
 f=f1/f2;  
 String mb= String.*valueOf*(f);  
 et.setText(mb);  
 div=false;  
 }  
 }  
 });  
  
  
 }  
}