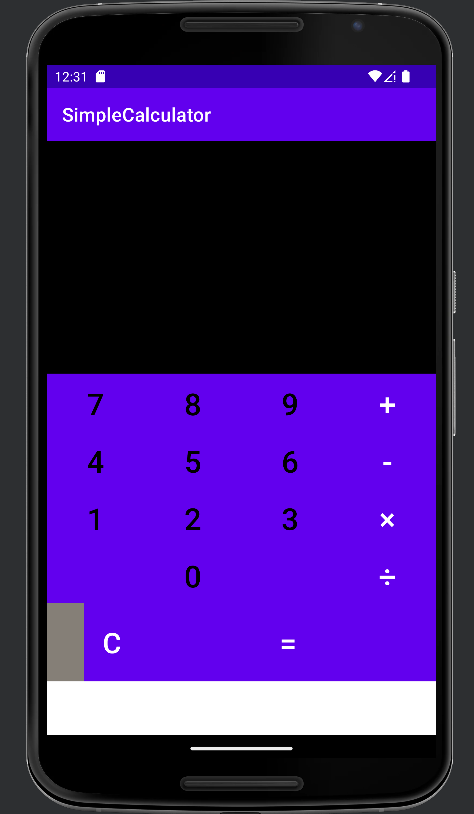
Simple Calculator

This android calculator app can help us to do various arithmetic calculations. This android application has a user interface with numbers and arithmetic operations. For the development of this application, we made use of Android Studio. Let us go through its description about what things the user interface will have:

FEATURES

1. It will have the number keys that will be created using buttons
2. Another thing would be operators like +, \*, /, -, % that are created using buttons too
3. Then we’ll have to create two more buttons for the delete and answer buttons
4. Then, there will be a screen that will show the number entered by the user and result when they click on answer
5. This calculator app would be a one time install; once the user installs it they are always ready to use it

Interface



Source code

* activity\_main.xml

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout 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:orientation="vertical"  
 android:weightSum="9"  
 tools:context=".MainActivity">  
  
 <TextView  
 android:id="@+id/input\_user"  
 android:layout\_width="match\_parent"  
 android:layout\_height="54dp"  
 android:layout\_weight="2"  
 android:background="@drawable/bgcolor2"  
 android:gravity="center|end"  
 android:hint="0"  
 android:maxLength="14"  
 android:padding="10dp"  
 android:textColor="#FFFFFF"  
 android:textColorHint="#000000"  
 android:textSize="30sp" />  
  
 <TextView  
 android:id="@+id/sign\_user"  
 android:layout\_width="match\_parent"  
 android:layout\_height="22dp"  
 android:layout\_weight="1"  
 android:background="@drawable/bgcolor2"  
 android:gravity="center|end"  
 android:padding="10dp"  
 android:textColor="#FFFFFF"  
 android:textColorHint="#000000"  
 android:textSize="28sp" />  
  
  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="4dp"  
 android:layout\_weight="1"  
 android:orientation="horizontal"  
 android:weightSum="4">  
  
 <Button  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"  
 android:background="@drawable/background\_btn1"  
 android:onClick="btn\_7"  
 android:text="7"  
  
 android:textColor="@color/BlackText"  
 android:textSize="32sp" />  
  
 <Button  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"  
 android:background="@drawable/background\_btn1"  
 android:onClick="btn\_8"  
 android:text="8"  
 android:textColor="@color/BlackText"  
 android:textSize="32sp" />  
  
 <Button  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"  
 android:background="@drawable/background\_btn1"  
 android:onClick="btn\_9"  
 android:text="9"  
 android:textColor="@color/BlackText"  
 android:textSize="32sp" />  
  
 <Button  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"  
 android:background="@drawable/background\_btn3"  
 android:onClick="btn\_add"  
 android:text="+"  
 android:textColor="@color/WhiteText"  
 android:textSize="32sp" />  
  
  
  
 </LinearLayout>  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="4dp"  
 android:layout\_weight="1"  
 android:orientation="horizontal"  
 android:weightSum="4">  
  
 <Button  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"  
 android:background="@drawable/background\_btn1"  
 android:onClick="btn\_4"  
 android:text="4"  
 android:textColor="@color/BlackText"  
 android:textSize="32sp" />  
  
 <Button  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"  
 android:background="@drawable/background\_btn1"  
 android:onClick="btn\_5"  
 android:text="5"  
 android:textColor="@color/BlackText"  
 android:textSize="32sp" />  
  
 <Button  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"  
 android:background="@drawable/background\_btn1"  
 android:onClick="btn\_6"  
 android:text="6"  
 android:textColor="@color/BlackText"  
 android:textSize="32sp" />  
  
 <Button  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"  
 android:background="@drawable/background\_btn3"  
 android:onClick="btn\_subtract"  
 android:text="-"  
  
 android:textColor="@color/WhiteText"  
 android:textSize="32sp"  
  
  
  
  
  
  
 />  
  
  
  
 </LinearLayout>  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="4dp"  
 android:layout\_weight="1"  
 android:orientation="horizontal"  
 android:weightSum="4">  
  
 <Button  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"  
 android:background="@drawable/background\_btn1"  
 android:onClick="btn\_1"  
 android:text="1"  
 android:textColor="@color/BlackText"  
 android:textSize="32sp" />  
  
 <Button  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"  
 android:background="@drawable/background\_btn1"  
 android:onClick="btn\_2"  
 android:text="2"  
 android:textColor="@color/BlackText"  
 android:textSize="32sp" />  
  
 <Button  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"  
 android:background="@drawable/background\_btn1"  
 android:onClick="btn\_3"  
 android:text="3"  
 android:textColor="@color/BlackText"  
 android:textSize="32sp" />  
  
 <Button  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"  
 android:background="@drawable/background\_btn3"  
 android:onClick="btn\_multiply"  
 android:text="×"  
 android:textColor="@color/WhiteText"  
 android:textSize="32sp" />  
  
 </LinearLayout>  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="4dp"  
 android:layout\_weight="1"  
 android:orientation="horizontal"  
 android:weightSum="4">  
  
 <View  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="0"  
 android:background="@drawable/background\_btn1" />  
  
 <Button  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="3"  
 android:background="@drawable/background\_btn1"  
 android:onClick="btn\_0"  
 android:text="0"  
 android:textColor="@color/BlackText"  
 android:textSize="32sp" />  
  
  
  
 <Button  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"  
 android:background="@drawable/background\_btn3"  
 android:onClick="btn\_divide"  
 android:text="÷"  
 android:textColor="@color/WhiteText"  
 android:textSize="32sp" />  
  
  
 </LinearLayout>  
  
 <LinearLayout  
 android:layout\_width="match\_parent"  
 android:layout\_height="26dp"  
 android:layout\_weight="1"  
 android:orientation="horizontal"  
 android:weightSum="10">  
  
 <ImageButton  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"  
 android:background="@drawable/background\_btn4"  
 android:onClick="btn\_delete" />  
  
 <Button  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="20dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="1"  
 android:background="@drawable/background\_btn4"  
 android:onClick="btn\_clear"  
 android:text="C"  
 android:textColor="@color/WhiteText"  
 android:textSize="30sp" />  
  
 <Button  
 style="@style/Widget.AppCompat.Button.Borderless"  
 android:layout\_width="0dp"  
 android:layout\_height="match\_parent"  
 android:layout\_weight="8"  
 android:background="@drawable/background\_btn3"  
 android:onClick="btn\_equal"  
 android:text="="  
 android:textColor="@color/WhiteText"  
 android:textSize="32sp" />  
  
  
 </LinearLayout>  
  
  
</LinearLayout>

* MainActivity.java

package com.example.simplecalculator;  
  
  
  
import androidx.appcompat.app.AppCompatActivity;  
import android.os.Bundle;  
import android.annotation.SuppressLint;  
import android.view.View;  
import android.widget.TextView;  
public class MainActivity extends AppCompatActivity {  
 TextView user\_input, sign\_Box;  
 Double num1, num2, answer;  
 String sign, val\_1, val\_2;  
 boolean has\_Dot;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
 user\_input = (TextView) findViewById(R.id.*input\_user*);  
 sign\_Box = (TextView) findViewById(R.id.*sign\_user*);  
 has\_Dot = false;  
  
 }  
  
 @SuppressLint("SetTextI18n")  
 public void btn\_0(View view) {  
 user\_input.setText(user\_input.getText() + "0");  
 }  
 @SuppressLint("SetTextI18n")  
 public void btn\_1(View view) {  
 user\_input.setText(user\_input.getText() + "1");  
 }  
  
 @SuppressLint("SetTextI18n")  
 public void btn\_2(View view) {  
 user\_input.setText(user\_input.getText() + "2");  
 }  
  
 @SuppressLint("SetTextI18n")  
 public void btn\_3(View view) {  
 user\_input.setText(user\_input.getText() + "3");  
 }  
  
 @SuppressLint("SetTextI18n")  
 public void btn\_4(View view) {  
 user\_input.setText(user\_input.getText() + "4");  
 }  
  
 @SuppressLint("SetTextI18n")  
 public void btn\_5(View view) {  
 user\_input.setText(user\_input.getText() + "5");  
 }  
  
 @SuppressLint("SetTextI18n")  
 public void btn\_6(View view) {  
 user\_input.setText(user\_input.getText() + "6");  
 }  
  
 @SuppressLint("SetTextI18n")  
 public void btn\_7(View view) {  
 user\_input.setText(user\_input.getText() + "7");  
 }  
  
 @SuppressLint("SetTextI18n")  
 public void btn\_8(View view) {  
 user\_input.setText(user\_input.getText() + "8");  
 }  
  
 @SuppressLint("SetTextI18n")  
 public void btn\_9(View view) {  
 user\_input.setText(user\_input.getText() + "9");  
 }  
  
  
 public void btn\_add(View view) {  
 sign = "+";  
 val\_1 = user\_input.getText().toString();  
 user\_input.setText(null);  
 sign\_Box.setText("+");  
 has\_Dot = false;  
 }  
  
 public void btn\_subtract(View view) {  
 sign = "-";  
 val\_1 = user\_input.getText().toString();  
 user\_input.setText(null);  
 sign\_Box.setText("-");  
 has\_Dot = false;  
 }  
  
 public void btn\_multiply(View view) {  
 sign = "\*";  
 val\_1 = user\_input.getText().toString();  
 user\_input.setText(null);  
 sign\_Box.setText("×");  
 has\_Dot = false;  
 }  
  
 public void btn\_divide(View view) {  
 sign = "/";  
 val\_1 = user\_input.getText().toString();  
 user\_input.setText(null);  
 sign\_Box.setText("÷");  
 has\_Dot = false;  
 }  
  
  
  
  
 public void btn\_equal(View view) {  
 if (sign == null) {  
 sign\_Box.setText("Error!");  
 } else if (user\_input.getText().equals("")) {  
 sign\_Box.setText("Error!");  
 } else if ((sign.equals("+") || sign.equals("-") || sign.equals("\*") || sign.equals("/")) && val\_1.equals("")) {  
 sign\_Box.setText("Error!");  
 } else {  
 switch (sign) {  
 default:  
 break;  
  
 case "+":  
 val\_2 = user\_input.getText().toString();  
 num1 = Double.*parseDouble*(val\_1);  
 num2 = Double.*parseDouble*(val\_2);  
 answer = num1 + num2;  
 user\_input.setText(answer + "");  
 sign = null;  
 sign\_Box.setText(null);  
 break;  
 case "-":  
 val\_2 = user\_input.getText().toString();  
 num1 = Double.*parseDouble*(val\_1);  
 num2 = Double.*parseDouble*(val\_2);  
 answer = num1 - num2;  
 user\_input.setText(answer + "");  
 sign = null;  
 sign\_Box.setText(null);  
 break;  
 case "\*":  
 val\_2 = user\_input.getText().toString();  
 num1 = Double.*parseDouble*(val\_1);  
 num2 = Double.*parseDouble*(val\_2);  
 answer = num1 \* num2;  
 user\_input.setText(answer + "");  
 sign = null;  
 sign\_Box.setText(null);  
 break;  
 case "/":  
 val\_2 = user\_input.getText().toString();  
 num1 = Double.*parseDouble*(val\_1);  
 num2 = Double.*parseDouble*(val\_2);  
 answer = num1 / num2;  
 user\_input.setText(answer + "");  
 sign = null;  
 sign\_Box.setText(null);  
 break;  
 }  
  
 }  
 }  
  
  
 public void btn\_delete(View view) {  
 if (user\_input.getText().equals("")) {  
 user\_input.setText(null);  
 } else {  
 int len = user\_input.getText().length();  
 String s = user\_input.getText().toString();  
 if (s.charAt(len - 1) == '.') {  
 has\_Dot = false;  
 user\_input.setText(user\_input.getText().subSequence(0, user\_input.getText().length() - 1));  
  
 } else {  
 user\_input.setText(user\_input.getText().subSequence(0, user\_input.getText().length() - 1));  
 }  
 }  
 }  
  
 public void btn\_clear(View view) {  
  
 user\_input.setText(null);  
 sign\_Box.setText(null);  
 val\_1 = null;  
 val\_2 = null;  
 sign = null;  
 has\_Dot = false;  
 }  
}

* refs.xml

<?xml version="1.0" encoding="utf-8"?>  
<resources>  
 <drawable name="bgcolor2">#000000</drawable>  
  
 <drawable name="bgcolor">#1CE4BC</drawable>  
 <drawable name="background\_btn1">#FFFFFF</drawable>  
 <drawable name="background\_btn2">#0F3B5E</drawable>  
 <drawable name="background\_btn3">#FF9800</drawable>  
 <drawable name="background\_btn4">#857F77</drawable>  
 <drawable name="ic\_backspace\_black\_24dp">#0F3B5E</drawable>  
</resources>