ADVANCED CALCULATOR

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Activity_main.xml

```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:background="#232223"
    android:weightSum="6"
    tools:context=".MainActivity">

<TextView
    android:id="@+id/screen"
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="1"
    android:gravity="center|right"
    android:textColor="#0000ff"
    android:textStyle="bold"
    android:textSize="30sp"
    android:background="#96F8CD"
    android:layout_marginTop="10dp"
    android:layout_marginBottom="30dp"
    android:layout_marginHorizontal="10dp"
    android:padding="10dp"/>
    <LinearLayout
    android:layout_width="fill_parent"
    android:layout_height="0dp"
    android:layout_weight="1"
    android:weightSum="4">
    <Button
    android:id="@+id/ac"
    android:layout_width="0dp"
    android:layout_weight="1"
    android:layout_height="fill_parent"
    android:text="AC"
    android:layout_margin="5dp"
    android:textColor="#FF0000"
    android:textSize="30dp"
    android:textStyle="bold"
    android:onClick="ButtonClick"
    android:background="@drawable/keyboard_btn"/>
    <Button
```

```xml
android:id="@+id/power"
android:layout_width="0dp"
android:layout_weight="1"
android:layout_height="fill_parent"
android:text="^"
android:layout_margin="5dp"
android:textSize="30dp"
android:textStyle="bold"
android:onClick="ButtonClick"
android:background="@drawable/keyboard_btn"/>
<Button
android:id="@+id/back"
android:layout_width="0dp"
android:layout_weight="1"
android:layout_height="fill_parent"
android:text="←"
android:layout_margin="5dp"
android:textSize="30dp"
android:textStyle="bold"
android:onClick="ButtonClick"
android:background="@drawable/keyboard_btn"/>
<Button
android:id="@+id/div"
android:layout_width="0dp"
android:layout_weight="1"
android:layout_height="fill_parent"
android:text="/"
android:layout_margin="5dp"
android:textSize="30dp"
android:textStyle="bold"
android:onClick="ButtonClick"
android:background="@drawable/keyboard_btn"/>
</LinearLayout>

<LinearLayout
android:layout_width="fill_parent"
android:layout_height="0dp"
android:layout_weight="1"
android:weightSum="4">
<Button
android:id="@+id/seven"
android:layout_width="0dp"
android:layout_weight="1"
android:layout_height="fill_parent"
android:text="7"
android:layout_margin="5dp"
android:textSize="30dp"
android:textStyle="bold"
```

```xml
android:onClick="ButtonClick"
android:background="@drawable/keyboard_btn"/>
<Button
android:id="@+id/eight"
android:layout_width="0dp"
android:layout_weight="1"
android:layout_height="fill_parent"
android:text="8"
android:layout_margin="5dp"
android:textSize="30dp"
android:textStyle="bold"
android:onClick="ButtonClick"
android:background="@drawable/keyboard_btn"/>
<Button
android:id="@+id/nine"
android:layout_width="0dp"
android:layout_weight="1"
android:layout_height="fill_parent"
android:text="9"
android:layout_margin="5dp"
android:textSize="30dp"
android:textStyle="bold"
android:onClick="ButtonClick"
android:background="@drawable/keyboard_btn"/>
<Button
android:id="@+id/mul"
android:layout_width="0dp"
android:layout_weight="1"
android:layout_height="fill_parent"
android:text="x"
android:layout_margin="5dp"
android:textSize="30dp"
android:textStyle="bold"
android:onClick="ButtonClick"
android:background="@drawable/keyboard_btn"/>
</LinearLayout>
<LinearLayout
android:layout_width="fill_parent"
android:layout_height="0dp"
android:layout_weight="1"
android:weightSum="4">
<Button
android:id="@+id/four"
android:layout_width="0dp"
android:layout_weight="1"
android:layout_height="fill_parent"
android:text="4"
android:layout_margin="5dp"
```

```xml
android:textSize="30dp"
android:textStyle="bold"
android:onClick="ButtonClick"
android:background="@drawable/keyboard_btn"/>
<Button
android:id="@+id/five"
android:layout_width="0dp"
android:layout_weight="1"
android:layout_height="fill_parent"
android:text="5"
android:layout_margin="5dp"
android:textSize="30dp"
android:textStyle="bold"
android:onClick="ButtonClick"
android:background="@drawable/keyboard_btn"/>
<Button
android:id="@+id/six"
android:layout_width="0dp"
android:layout_weight="1"
android:layout_height="fill_parent"
android:text="6"
android:layout_margin="5dp"
android:textSize="30dp"
android:textStyle="bold"
android:onClick="ButtonClick"
android:background="@drawable/keyboard_btn"/>
<Button
android:id="@+id/min"
android:layout_width="0dp"
android:layout_weight="1"
android:layout_height="fill_parent"
android:text="-"
android:layout_margin="5dp"
android:textSize="30dp"
android:textStyle="bold"
android:onClick="ButtonClick"
android:background="@drawable/keyboard_btn"/>
</LinearLayout>
<LinearLayout
android:layout_width="fill_parent"
android:layout_height="0dp"
android:layout_weight="1"
android:weightSum="4">
<Button
android:id="@+id/one"
android:layout_width="0dp"
android:layout_weight="1"
android:layout_height="fill_parent"
```

```xml
    android:text="1"
    android:layout_margin="5dp"
    android:textSize="30dp"
    android:textStyle="bold"
    android:onClick="ButtonClick"
    android:background="@drawable/keyboard_btn"/>
<Button
    android:id="@+id/two"
    android:layout_width="0dp"
    android:layout_weight="1"
    android:layout_height="fill_parent"
    android:text="2"
    android:layout_margin="5dp"
    android:textSize="30dp"
    android:textStyle="bold"
    android:onClick="ButtonClick"
    android:background="@drawable/keyboard_btn"/>
<Button
    android:id="@+id/three"
    android:layout_width="0dp"
    android:layout_weight="1"
    android:layout_height="fill_parent"
    android:text="3"
    android:layout_margin="5dp"
    android:textSize="30dp"
    android:textStyle="bold"
    android:onClick="ButtonClick"
    android:background="@drawable/keyboard_btn"/>
<Button
    android:id="@+id/plus"
    android:layout_width="0dp"
    android:layout_weight="1"
    android:layout_height="fill_parent"
    android:text="+"
    android:layout_margin="5dp"
    android:textSize="30dp"
    android:textStyle="bold"
    android:onClick="ButtonClick"
    android:background="@drawable/keyboard_btn"/>
</LinearLayout>
<LinearLayout
    android:layout_width="fill_parent"
    android:layout_height="0dp"
    android:layout_weight="1"
    android:weightSum="4">
<Button
    android:id="@+id/zero"
    android:layout_width="0dp"
```

```xml
            android:layout_weight="1"
            android:layout_height="fill_parent"
            android:text="0"
            android:layout_margin="5dp"
            android:textSize="30dp"
            android:textStyle="bold"
            android:onClick="ButtonClick"
            android:background="@drawable/keyboard_btn"/>
        <Button
            android:id="@+id/point"
            android:layout_width="0dp"
            android:layout_weight="1"
            android:layout_height="fill_parent"
            android:text="."
            android:layout_margin="5dp"
            android:textSize="30dp"
            android:textStyle="bold"
            android:onClick="ButtonClick"
            android:background="@drawable/keyboard_btn"/>
        <Button
            android:id="@+id/ans"
            android:layout_width="0dp"
            android:layout_weight="1"
            android:layout_height="fill_parent"
            android:text="Ans"
            android:layout_margin="5dp"
            android:textSize="30dp"
            android:textStyle="bold"
            android:onClick="ButtonClick"
            android:background="@drawable/keyboard_btn"/>
        <Button
            android:id="@+id/equal"
            android:layout_width="0dp"
            android:layout_weight="1"
            android:layout_height="fill_parent"
            android:text="="
            android:layout_margin="5dp"
            android:textSize="30dp"
            android:textStyle="bold"
            android:onClick="ButtonClick"
            android:background="@drawable/keyboard_btn"/>
    </LinearLayout>


</LinearLayout>
```

MainActivity.java

```java
package com.example.calculator;

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 {
private TextView Screen;
private Button
AC,Power,Back,Div,Mul,Plus,Min,One,Two,Three,Four,Five,Six,Seven,Eight,Nine,Zero,Ans;
private String input, Answer;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    Screen=findViewById(R.id.screen);
    AC=findViewById(R.id.ac);
    //continue like this for all...
    Power=findViewById(R.id.power);
    Back=findViewById(R.id.back);
    Div=findViewById(R.id.div);
    Mul=findViewById(R.id.mul);
    Plus=findViewById(R.id.plus);
    Min=findViewById(R.id.min);
    One=findViewById(R.id.one);
    Two=findViewById(R.id.two);
    Three=findViewById(R.id.three);
    Four=findViewById(R.id.four);
    Five=findViewById(R.id.five);
    Six=findViewById(R.id.six);
    Seven=findViewById(R.id.seven);
    Eight=findViewById(R.id.eight);
    Nine=findViewById(R.id.nine);
    Zero=findViewById(R.id.zero);
    Ans=findViewById(R.id.ans);
    }
    public void ButtonClick(View view){
    Button button=(Button) view;
    String data=button.getText().toString();
    switch(data){
    case"AC":
    input="";
    break;
    case"Ans":
    input+=Answer;
```

```java
break;
case"x":
Solve();
input+="*";
break;
case"^":
Solve();
input+="^";
break;
case"=":
Solve();
Answer=input;
break;
case"←":
String newText = input.substring(0,input.length()-1);
input=newText;
break;
default:
if(input==null){
        input="";
}
if(data.equals("+")||data.equals("-")||data.equals("/")){
        Solve();
}
input+=data;
}
Screen.setText(input);
}
private void Solve(){
if(input.split("\\*").length==2){
String number[]=input.split("\\*");
try {
double mul = Double.parseDouble(number[0]) * Double.parseDouble(number[1]);
input = mul+"";
}
catch (Exception e){
//Toggle error
}
}

else if(input.split("/").length==2){
String number[]=input.split("\\*");
try {
double div = Double.parseDouble(number[0]) / Double.parseDouble(number[1]);
input = div+"";
}
catch (Exception e){
//Toggle error
```

```
		}
		}

		else if(input.split("\\^").length==2){
		String number[]=input.split("\\^");
		try {
		double pow = Math.pow(Double.parseDouble(number[0]) ,
Double.parseDouble(number[1]));
		input = pow+"";
		}
		catch (Exception e){
		//Toggle error
		}
		}

		else if(input.split("\\+").length==2){
		String number[]=input.split("\\+");
		try {
		double sum = Double.parseDouble(number[0]) + Double.parseDouble(number[1]);
		input = sum+"";
		}
		catch (Exception e){
		//Toggle error
		}
		}

		else if(input.split("-").length==2){ //this is only for subtraction that may have more
than two split char
		String number[]=input.split("-");
		//to subtract negative number
		if(number[0]==""&&number.length==2){
		number[0]=0+"";
		}
		try {
		double sub = 0;
		if(number.length==2){
			sub = Double.parseDouble(number[0]) - Double.parseDouble(number[1]);
		}
		else if(number.length==3){
			sub = -Double.parseDouble(number[1])- Double.parseDouble(number[2]);
		}
		input = sub+"";
		}
		catch (Exception e){
		//Toggle error
		}
		}
		//to remove the last digit  .0 from integer
```

```
String n[]=input.split("\\.");
if(n.length>1){
if(n[1].equals("0")){
input=n[0];
}
}
Screen.setText(input);
}
}
```

OUTPUT: