

Androidmanifest.xml

```
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:tools="http://schemas.android.com/tools">
<application android:allowBackup="true"
android:icon="@mipmap/ic_launcher"
android:label="@string/app_name"
android:roundIcon="@mipmap/ic_launcher_round"
android:supportRtl="true"
android:theme="@style/Theme.ScientificCalculator"
tools:ignore="MissingApplicationIcon">
<activity android:name=".MainActivity"
android:exported="true"> <!-- Add this line -->
<intent-filter> <action android:name="android.intent.action.MAIN" />
<category android:name="android.intent.category.LAUNCHER" />
</intent-filter></activity> </application></manifest>
```

MainActivity.java

```
package com.example.final_cal;
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 {
private EditText editText;
private StringBuilder expression = new StringBuilder();
private ExpressionEvaluator evaluator = new ExpressionEvaluator();
@Override protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState); setContentView(R.layout.activity_main);
editText = findViewById(R.id.editText);
setupButtons(); } private void setupButtons() { int[] buttonIds = {
R.id.button_clear, R.id.button_mod, R.id.button_divide, R.id.button_multiply,
R.id.button_sin, R.id.button_cos, R.id.button_tan, R.id.button_subtract,
R.id.button_sqrt, R.id.button_pow, R.id.button_add, R.id.button_log,
R.id.button_ln, R.id.button_equals,
R.id.button_0, R.id.button_1, R.id.button_2, R.id.button_3,
R.id.button_4, R.id.button_5, R.id.button_6, R.id.button_7,
R.id.button_8, R.id.button_9 };
for (int id : buttonIds) { Button button = findViewById(id);
button.setOnClickListener(this::onButtonClick); } }
private void onButtonClick(View view) {
Button button = (Button) view; String buttonText = button.getText().toString();
if (buttonText.equals("C")) { expression.setLength(0);
} else if (buttonText.equals("=")) { calculateResult();
return; } else { expression.append(buttonText); }
updateDisplay(); } private void updateDisplay() {
editText.setText(expression.toString()); }
private void calculateResult() { try { String exp = expression.toString();
double result = evaluator.evaluate(exp); expression.setLength(0);
expression.append(result); } catch (Exception e) {
expression.setLength(0); expression.append("Error"); } updateDisplay(); } }
```

Activity_Main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:padding="16dp" tools:context=".MainActivity"
android:background="@color/background_color">
<TextView android:id="@+id/titleText"
android:layout_width="wrap_content"
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android:layout_height="wrap_content"
android:layout_centerHorizontal="true"
android:layout_marginBottom="16dp"
android:text="Calculator by yoges"
android:textSize="24sp" android:textStyle="bold"
android:textColor="@color/black" />
<EditText android:id="@+id/editText"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_below="@id/titleText"
android:layout_marginBottom="16dp"
android:background="@drawable/edit_text_bg"
android:gravity="center"
android:inputType="none" android:textSize="32sp"
android:textColor="@color/black" android:padding="16dp"
android:backgroundTint="@color/colorPrimaryDark"
android:focusable="false" android:cursorVisible="false"/>
<GridLayout android:id="@+id/buttonGrid"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_below="@id/editText"
android:columnCount="4" android:rowCount="6"
android:padding="16dp" android:background="@color/white"
android:layout_marginTop="16dp">
<!-- First Row --> <Button android:id="@+id/button_7"
style="@style/CalculatorButton" android:text="7" /> <Button
android:id="@+id/button_8" style="@style/CalculatorButton"
android:text="8" /> <Button android:id="@+id/button_9"
style="@style/CalculatorButton"
android:text="9" /> <Button android:id="@+id/button_divide"
style="@style/CalculatorButton"
android:text="/" /> <!-- Second Row --> <Button
android:id="@+id/button_4"
style="@style/CalculatorButton" android:text="4" />
<Button android:id="@+id/button_5"
style="@style/CalculatorButton"
android:text="5" /> <Button android:id="@+id/button_6"
style="@style/CalculatorButton"
android:text="6" /> <Button android:id="@+id/button_multiply"
style="@style/CalculatorButton"
android:text="*" />
<!-- Third Row --> <Button android:id="@+id/button_1"
style="@style/CalculatorButton" android:text="1" /> <Button android:id="@+id/button_2"
style="@style/CalculatorButton" android:text="2" /> <Button android:id="@+id/button_3"
style="@style/CalculatorButton"
android:text="3" /> <Button android:id="@+id/button_subtract"
style="@style/CalculatorButton"
android:text="-" />
<!-- Fourth Row --> <Button android:id="@+id/button_0"
style="@style/CalculatorButton" android:text="0" />
<Button android:id="@+id/button_mod"
style="@style/CalculatorButton"
android:text="%" />
<Button android:id="@+id/button_clear"
style="@style/CalculatorButton"
android:text="C" />
<Button android:id="@+id/button_add"
style="@style/CalculatorButton"
android:text="+" /> <!-- Fifth Row -->
<Button android:id="@+id/button_sin"
style="@style/CalculatorButton" android:text="sin" />
<Button android:id="@+id/button_cos"

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style="@style/CalculatorButton android:text="cos" />
<Button android:id="@+id/button_tan"
style="@style/CalculatorButton" android:text="tan" />
<Button android:id="@+id/button_pow"
style="@style/CalculatorButton" android:text="^" />
<!-- Sixth Row --> <Button android:id="@+id/button_sqrt"
style="@style/CalculatorButton" android:text="√" />
<Button android:id="@+id/button_log"
style="@style/CalculatorButton"
android:text="log" />
<Button android:id="@+id/button_ln"
style="@style/CalculatorButton"
android:text="ln" />
<Button android:id="@+id/button_equals"
style="@style/CalculatorButton"
android:text="=" /> </GridLayout> <TextView
android:id="@+id/footer_text"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentBottom="true"
android:layout_alignParentEnd="true"
android:layout_margin="28dp"
android:text="BY YOGESWARAN S"
android:textSize="26sp"
android:textColor="@android:color/black"
android:fontFamily="cursive"
/> </RelativeLayout>

```

