

MAIN.ACTIVITY:

```
package com.example.myapplication;

import android.os.Bundle;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity extends AppCompatActivity {
    TextView TV;
    EditText E1,E2;
    Button B1,B2,B3,B4,B5,B6;
    private int result=0;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main);
        E1=findViewById(R.id.editTextText);
        E2=findViewById(R.id.editTextText2);
        TV=findViewById(R.id.textView4);

        B1=findViewById(R.id.button);
        B2=findViewById(R.id.button2);
        B3=findViewById(R.id.button3);
        B4=findViewById(R.id.button4);
        B5=findViewById(R.id.button5);
        B6=findViewById(R.id.button6);

        B1.setOnClickListener(v -> performOperation('+'));

        B2.setOnClickListener(v -> performOperation('-'));

        B3.setOnClickListener(v -> performOperation('*'));

        B4.setOnClickListener(v -> performOperation('/'));

        B5.setOnClickListener(v -> performOperation('%'));
        B6.setOnClickListener(v -> TV.setText(String.valueOf(result)));
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main), (v, insets) -> {
            Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right, systemBars.bottom);
            return insets;
        });
    }
    private void performOperation(char operator){
```

```

try{
    int num1=Integer.parseInt(E1.getText().toString());
    int num2=Integer.parseInt(E2.getText().toString());
    switch (operator){
        case '+':
            result=num1+num2;
            break;
        case '-':
            result=num1-num2;
            break;
        case '*':
            result=num1*num2;
            break;
        case '/':
            if(num2 !=0){
                result=num1/num2;
            }else{
                TV.setText("error:divide by 0");
                return;
            }
            break;
        case '%':
            result=num1%num2;
            break;
    }
} catch (NumberFormatException e){
    TV.setText("error:invalid input");
}

}
}

```

ACTIVITY_MAIN.XML:

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout 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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="199dp"
        android:layout_height="45dp"
        android:layout_marginTop="36dp"
        android:text="CALCULATOR"
        android:textSize="24sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

```

```
<TextView
    android:id="@+id/textView2"
    android:layout_width="91dp"
    android:layout_height="81dp"
    android:layout_marginTop="60dp"
    android:text="ENTER THE FIRST NUMBER"
    app:layout_constraintEnd_toStartOf="@+id/editTextText"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView" />
```

```
<TextView
    android:id="@+id/textView3"
    android:layout_width="84dp"
    android:layout_height="74dp"
    android:layout_marginTop="28dp"
    android:text="ENTER THE SECOND NUMBER"
    app:layout_constraintEnd_toStartOf="@+id/editTextText2"
    app:layout_constraintHorizontal_bias="0.441"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView2" />
```

```
<EditText
    android:id="@+id/editTextText"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="80dp"
    android:layout_marginEnd="44dp"
    android:ems="10"
    android:inputType="text"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView" />
```

```
<EditText
    android:id="@+id/editTextText2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="60dp"
    android:layout_marginEnd="40dp"
    android:ems="10"
    android:inputType="text"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/editTextText" />
```

```
<TextView
    android:id="@+id/textView4"
    android:layout_width="222dp"
    android:layout_height="37dp"
    android:layout_marginTop="72dp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/editTextText2" />
```

```
<Button
```

```
android:id="@+id/button"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="60dp"
android:text="+"
android:textSize="24sp"
app:layout_constraintEnd_toStartOf="@+id/button2"
app:layout_constraintHorizontal_bias="0.523"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/textView4" />
```

```
<Button
    android:id="@+id/button2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="60dp"
    android:layout_marginEnd="28dp"
    android:text="-"
    android:textSize="24sp"
    app:layout_constraintEnd_toStartOf="@+id/button3"
    app:layout_constraintTop_toBottomOf="@+id/textView4" />
```

```
<Button
    android:id="@+id/button3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="60dp"
    android:layout_marginEnd="36dp"
    android:text="*"
    android:textSize="24sp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView4" />
```

```
<Button
    android:id="@+id/button4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="40dp"
    android:text="/"
    android:textSize="24sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toStartOf="@+id/button5"
    app:layout_constraintHorizontal_bias="0.526"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/button"
    app:layout_constraintVertical_bias="0.086" />
```

```
<Button
    android:id="@+id/button5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="40dp"
    android:layout_marginEnd="28dp"
```

```
android:text="%"  
android:textSize="24sp"  
app:layout_constraintBottom_toBottomOf="parent"  
app:layout_constraintEnd_toStartOf="@+id/button6"  
app:layout_constraintTop_toBottomOf="@+id/button2"  
app:layout_constraintVertical_bias="0.086" />
```

```
<Button
```

```
    android:id="@+id/button6"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_marginTop="40dp"  
    android:layout_marginEnd="36dp"  
    android:text=""  
    android:textSize="24sp"  
    app:layout_constraintBottom_toBottomOf="parent"  
    app:layout_constraintEnd_toEndOf="parent"  
    app:layout_constraintTop_toBottomOf="@+id/button3"  
    app:layout_constraintVertical_bias="0.086" />
```

```
</androidx.constraintlayout.widget.ConstraintLayout>
```