

## CALCULATOR

### ACTIVITY\_MAIN

```
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#B1B0B0"
    tools:context=".MainActivity">
    <TextView
        android:layout_width="240dp"
        android:layout_height="48dp"
        android:text="@string/calculator"
        android:textAlignment="center"
        android:textAllCaps="false"
        android:textColor="#040404"
        android:textSize="36sp"
        android:textStyle="bold"
        android:typeface="serif"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintHorizontal_bias="0.5"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.125"
        android:gravity="center_horizontal" />
    <TextView
        android:layout_width="172dp"
        android:layout_height="34dp"
        android:text="@string/first_number"
        android:textColor="#040404"
        android:textSize="24sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintHorizontal_bias="0.22"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.268" />
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/second_number"
        android:textColor="#0E0E0E"
        android:textSize="24sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintHorizontal_bias="0.22"
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        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.368" />
<Button
    android:id="@+id/button1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:backgroundTint="#FDFDFD"
    android:text="@string/addition"
    android:textColor="#070707"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintHorizontal_bias="0.22"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.5" />
<Button
    android:id="@+id/button2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:backgroundTint="#FDFAFA"
    android:text="@string/subtract"
    android:textColor="#000000"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintHorizontal_bias="0.736"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.5" />
<Button
    android:id="@+id/button3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:backgroundTint="#FFFFFF"
    android:text="@string/multiply"
    android:textColor="#0C0C0C"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintHorizontal_bias="0.22"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.65" />
<Button
    android:id="@+id/button4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:backgroundTint="#FAF4F4"
    android:text="@string/divide"
    android:textColor="#0E0E0E"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintHorizontal_bias="0.736"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent"

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        app:layout_constraintVertical_bias="0.65" />
<Button
    android:id="@+id/button5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:backgroundTint="#FFFFFF"
    android:text="@string/reset"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintHorizontal_bias="0.5"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.77" />

<EditText
    android:id="@+id/editTextNumber"
    android:layout_width="118dp"
    android:layout_height="48dp"
    android:ems="10"
    android:inputType="number"
    android:textSize="18sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintHorizontal_bias="0.9"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.268" />
<EditText
    android:id="@+id/editTextNumber2"
    android:layout_width="115dp"
    android:layout_height="43dp"
    android:ems="10"
    android:inputType="number"
    android:textSize="18sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintHorizontal_bias="0.9"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.368" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

JAVA FILE:

```
package com.example.calculator;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.TextView;
import android.widget.Button;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    TextView num1 , num2;
    Button add,sub,mul,div,reset;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        add = findViewById(R.id.button1);
        sub = findViewById(R.id.button2);
        mul = findViewById(R.id.button3);
        div = findViewById(R.id.button4);
        reset = findViewById(R.id.button5);
        num1 = findViewById(R.id.editTextNumber);
        num2 = findViewById(R.id.editTextNumber2);
        add.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                int fno=Integer.parseInt(num1.getText().toString());
                int sno=Integer.parseInt(num2.getText().toString());
                int res =fno+sno;
                Toast.makeText(MainActivity.this,"Result: "+res,
                    Toast.LENGTH_LONG).show();
            }
        });
        sub.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                int fno = Integer.parseInt(num1.getText().toString());
                int sno = Integer.parseInt(num2.getText().toString());
                int res=fno-sno;
                Toast.makeText(MainActivity.this,"Result: "+res,
                    Toast.LENGTH_LONG).show();
            }
        });
        mul.setOnClickListener(new View.OnClickListener() {
            @Override
```

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        public void onClick(View v) {
            int fno = Integer.parseInt(num1.getText().toString());
            int sno = Integer.parseInt(num2.getText().toString());
            int res=fno*sno;
            Toast.makeText(MainActivity.this,"Result:"+res,
                Toast.LENGTH_LONG).show();
        }
    });
    div.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            int fno = Integer.parseInt(num1.getText().toString());
            int sno = Integer.parseInt(num2.getText().toString());
            if(sno==0){
                Toast.makeText(MainActivity.this,"Error:Division by zero",
                    Toast.LENGTH_LONG).show();
            }
            else{
                int res = fno / sno;
                Toast.makeText(MainActivity.this,"Result : "
                    +res,Toast.LENGTH_LONG).show();
            }
        }
    });
    reset.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            num1.setText("");
            num2.setText("");
            Toast.makeText(MainActivity.this, "Reset Done",
                Toast.LENGTH_SHORT).show();
        }
    });
}
}

```





