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**BCA – 5 ‘C’**

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### **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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="48dp"
        android:text="@string/calculator"
        android:textSize="28sp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/edtNumber1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="64dp"
        android:ems="10"
        android:hint="@string/first_number"
        android:inputType="numberDecimal"
        android:textAlignment="center"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView2" />

    <EditText
```

```
android:id="@+id/edtNumber2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="32dp"
android:ems="10"
android:hint="@string/second_number"
android:inputType="numberDecimal"
android:textAlignment="center"
app:layout_constraintEnd_toEndOf="@+id/edtNumber1"
app:layout_constraintStart_toStartOf="@+id/edtNumber1"
app:layout_constraintTop_toBottomOf="@+id/edtNumber1" />
```

<Button

```
android:id="@+id/add"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="32dp"
android:text="@string/add"
android:textSize="24sp"
android:onClick="add"
app:layout_constraintEnd_toStartOf="@+id/subtract"
app:layout_constraintHorizontal_chainStyle="spread_inside"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@id/edtNumber2" />
```

<Button

```
android:id="@+id/subtract"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="32dp"
android:text="@string/sub"
android:textSize="24sp"
android:onClick="subtract"
app:layout_constraintEnd_toStartOf="@+id/multiply"
app:layout_constraintStart_toEndOf="@+id/add"
app:layout_constraintTop_toBottomOf="@id/edtNumber2" />
```

<Button

```
android:id="@+id/multiply"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="32dp"
android:text="@string/mul"
android:onClick="multiply"
```

```
android:textSize="24sp"
app:layout_constraintEnd_toStartOf="@+id/divide"
app:layout_constraintStart_toEndOf="@+id/subtract"
app:layout_constraintTop_toBottomOf="@id/edtNumber2" />
```

<Button

```
android:id="@+id/divide"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="32dp"
android:text="@string/div"
android:textSize="24sp"
android:onClick="divide"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toEndOf="@+id/multiply"
app:layout_constraintTop_toBottomOf="@id/edtNumber2" />
```

<TextView

```
android:id="@+id/txtResultHeader"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="96dp"
android:text="@string/result"
android:textSize="24sp"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.498"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/multiply" />
```

<TextView

```
android:id="@+id/txtResult"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="20dp"
android:textSize="22sp"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/txtResultHeader" />
```

</androidx.constraintlayout.widget.ConstraintLayout>

## MainActivity.java

```
package com.example.myapplicationadd;

import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    private EditText edtNumber1;
    private EditText edtNumber2;
    private TextView result;

    private float number1;
    private float number2;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        edtNumber1 = findViewById(R.id.edtNumber1);
        edtNumber2 = findViewById(R.id.edtNumber2);
        result = findViewById(R.id.txtResult);
    }

    public void add(View view) {
        number1 = Float.parseFloat(edtNumber1.getText().toString().trim());
        number2 = Float.parseFloat(edtNumber2.getText().toString().trim());

        result.setText(String.valueOf((number1 + number2)));
    }

    public void subtract(View view) {
        number1 = Float.parseFloat(edtNumber1.getText().toString().trim());
        number2 = Float.parseFloat(edtNumber2.getText().toString().trim());

        result.setText(String.valueOf((number1 - number2)));
    }
}
```

```
public void multiply(View view) {  
    number1 = Float.parseFloat(edtNumber1.getText().toString().trim());  
    number2 = Float.parseFloat(edtNumber2.getText().toString().trim());  
  
    result.setText(String.valueOf((number1 * number2)));  
}  
  
public void divide(View view) {  
    number1 = Float.parseFloat(edtNumber1.getText().toString().trim());  
    number2 = Float.parseFloat(edtNumber2.getText().toString().trim());  
  
    result.setText(String.valueOf((number1 / number2)));  
}  
}
```

