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## Modul 2

### Membuat kalkulator sederhana

Script java :

```
package com.example.kalkulator;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    EditText editTextNumber1, editTextNumber2;
    Button buttonAdd, buttonSubtract, buttonMultiply, buttonDivide;
    TextView textViewResult;

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

        editTextNumber1 = findViewById(R.id.editTextNumber1);
        editTextNumber2 = findViewById(R.id.editTextNumber2);
        buttonAdd = findViewById(R.id.buttonAdd);
        buttonSubtract = findViewById(R.id.buttonSubtract);
        buttonMultiply = findViewById(R.id.buttonMultiply);
        buttonDivide = findViewById(R.id.buttonDivide);
        textViewResult = findViewById(R.id.textViewResult);

        buttonAdd.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                calculateResult('+');
            }
        });

        buttonSubtract.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                calculateResult('-');
            }
        });

        buttonMultiply.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                calculateResult('*');
            }
        });
    }
}
```

```

        buttonDivide.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                calculateResult('/');
            }
        });
    }

    private void calculateResult(char operator) {
        double num1, num2;
        try {
            num1 =
Double.parseDouble(editTextNumber1.getText().toString());
            num2 =
Double.parseDouble(editTextNumber2.getText().toString());
        } catch (NumberFormatException e) {
            Toast.makeText(getApplicationContext(), "Invalid input",
Toast.LENGTH_SHORT).show();
            return;
        }

        double result = 0;
        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 {
                    Toast.makeText(getApplicationContext(), "Cannot divide
by zero", Toast.LENGTH_SHORT).show();
                    return;
                }
                break;
        }

        textViewResult.setText("Hasil: " + result);
    }
}

```

script 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"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/editTextNumber1"
        android:layout_width="wrap_content"

```

```
    android:layout_height="wrap_content"
    android:layout_alignParentTop="true"
    android:layout_alignParentEnd="true"
    android:layout_marginTop="127dp"
    android:layout_marginEnd="111dp"
    android:hint="Enter Number 1"
    android:inputType="numberDecimal" />
```

```
<EditText
    android:id="@+id/editTextNumber2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/editTextNumber1"
    android:layout_alignParentEnd="true"
    android:layout_marginTop="40dp"
    android:layout_marginEnd="115dp"
    android:hint="Enter Number 2"
    android:inputType="numberDecimal" />
```

```
<Button
    android:id="@+id/buttonAdd"
    android:layout_width="113dp"
    android:layout_height="wrap_content"
    android:layout_below="@+id/editTextNumber2"
    android:layout_alignParentStart="true"
    android:layout_marginStart="-8dp"
    android:layout_marginTop="59dp"
    android:text="+" />
```

```
<Button
    android:id="@+id/buttonSubtract"
    android:layout_width="103dp"
    android:layout_height="wrap_content"
    android:layout_below="@+id/editTextNumber2"
    android:layout_marginStart="8dp"
    android:layout_marginTop="59dp"
    android:layout_toEndOf="@+id/buttonAdd"
    android:text="-" />
```

```
<Button
    android:id="@+id/buttonMultiply"
    android:layout_width="104dp"
    android:layout_height="wrap_content"
    android:layout_below="@+id/editTextNumber2"
    android:layout_marginStart="9dp"
    android:layout_marginTop="59dp"
    android:layout_toEndOf="@+id/buttonSubtract"
    android:text="*" />
```

```
<Button
    android:id="@+id/buttonDivide"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/editTextNumber2"
    android:layout_marginStart="13dp"
    android:layout_marginTop="58dp"
    android:layout_toEndOf="@+id/buttonMultiply"
    android:text="/" />
```

```
<TextView
    android:id="@+id/textViewResult"
```

```

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/buttonAdd"
        android:layout_marginTop="32dp"
        android:layout_centerHorizontal="true"
        android:textSize="24sp" />

<TextView
    android:id="@+id/textView"
    android:layout_width="103dp"
    android:layout_height="wrap_content"
    android:layout_alignParentStart="true"
    android:layout_alignParentTop="true"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginStart="19dp"
    android:layout_marginTop="138dp"
    android:layout_marginEnd="289dp"
    android:layout_marginBottom="556dp"
    android:text="Angka pertama" />

<TextView
    android:id="@+id/textView2"
    android:layout_width="108dp"
    android:layout_height="wrap_content"
    android:layout_alignParentStart="true"
    android:layout_alignParentTop="true"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginStart="17dp"
    android:layout_marginTop="211dp"
    android:layout_marginEnd="287dp"
    android:layout_marginBottom="484dp"
    android:text="Angka kedua" />

<TextView
    android:id="@+id/textView3"
    android:layout_width="256dp"
    android:layout_height="wrap_content"
    android:layout_alignParentStart="true"
    android:layout_alignParentTop="true"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginStart="82dp"
    android:layout_marginTop="47dp"
    android:layout_marginEnd="73dp"
    android:layout_marginBottom="644dp"
    android:text="KALKULATOR SEDERHANA"
    android:textSize="20dp"
    android:textStyle="bold" />

</RelativeLayout>

```

Hasil :

