

APLIKASI KALKULATOR DAN CONVERTER SEDERHANA

MENGGUNAKAN ANDROID STUDIO

Source Code 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">

    <androidx.constraintlayout.widget.ConstraintLayout
        android:id="@+id/rootRL"
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:background="@drawable/test"
        android:orientation="vertical"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.0">

        <EditText
            android:id="@+id/etxtA"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginStart="77dp"
            android:layout_marginLeft="77dp"
            android:layout_marginBottom="17dp"

            android:background="@drawable/blue_clouds_phone_background_300x650"
            android:ems="10"
            android:hint="0"
            android:inputType="numberDecimal"
            android:digits="0123456789, ."
            android:minHeight="48dp"
            android:textSize="48sp"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintHorizontal_bias="0.012"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent"
            app:layout_constraintVertical_bias="0.144" />

        <EditText
            android:id="@+id/etxtB"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginStart="77dp"
            android:layout_marginLeft="77dp"
            android:layout_marginBottom="21dp"

            android:background="@drawable/blue_clouds_phone_background_300x650"
            android:ems="10"
            android:hint="0"
            android:inputType="numberDecimal"
            android:digits="0123456789., "
            android:minHeight="48dp"
            android:textSize="48sp"
            app:layout_constraintBottom_toBottomOf="parent"
            app:layout_constraintEnd_toEndOf="parent"
```

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        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.27" />

<Button
    android:id="@+id/btnMtoCm"
    android:layout_width="79dp"
    android:layout_height="78dp"

android:background="@drawable/blue_clouds_phone_background_300x650"
    android:contentDescription="@string/app_name"
    android:textSize="16sp"
    app:backgroundTint="#009688"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.348"
    app:layout_constraintStart_toEndOf="@+id/btnKmtom"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.539" />

<Button
    android:id="@+id/btnCmtom"
    android:layout_width="76dp"
    android:layout_height="75dp"
    android:layout_marginTop="22dp"
    android:layout_marginEnd="54dp"
    android:layout_marginRight="54dp"
    android:background="@drawable/resource__"
    android:textSize="20sp"
    app:backgroundTint="#00009688"
    app:iconPadding="100dp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.37"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.376" />

<Button
    android:id="@+id/btnKmtom"
    android:layout_width="76dp"
    android:layout_height="77dp"
    android:layout_marginTop="16dp"
    android:layout_marginEnd="51dp"
    android:layout_marginRight="51dp"

android:background="@drawable/blue_clouds_phone_background_300x650"
    android:textSize="16sp"
    app:backgroundTint="#009688"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.366"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/btnCmtom"
    app:layout_constraintVertical_bias="0.003" />

<Button
    android:id="@+id/btnMtoKm"
    android:layout_width="76dp"
    android:layout_height="75dp"
    android:layout_marginTop="22dp"
    android:layout_marginEnd="102dp"
    android:layout_marginRight="102dp"
    android:layout_marginBottom="17dp"

android:background="@drawable/blue_clouds_phone_background_300x650"
    android:textSize="20sp"
    app:background="@drawable/blue_clouds_phone_background_300x650"

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        app:backgroundTint="#00FFFFFF"
        app:layout_constraintBottom_toTopOf="@+id/btnMtoCm"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="1.0"
        app:layout_constraintStart_toEndOf="@+id/btnCmtom"
        app:layout_constraintTop_toBottomOf="@+id/etxtB"
        app:layout_constraintVertical_bias="0.0" />

<Button
    android:id="@+id/btnChange"
    android:layout_width="213dp"
    android:layout_height="57dp"
    android:layout_marginStart="99dp"
    android:layout_marginLeft="99dp"
    android:layout_marginEnd="99dp"
    android:layout_marginRight="99dp"

    android:background="@drawable/blue_clouds_phone_background_300x650"
    android:textSize="16sp"
    app:backgroundTint="#009688"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.0"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.915" />

<Button
    android:id="@+id/btnClear"
    android:layout_width="101dp"
    android:layout_height="57dp"

    android:background="@drawable/blue_clouds_phone_background_300x650"
    android:textSize="16sp"
    app:backgroundTint="#009688"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.808" />

<TextView
    android:id="@+id/txtHasil"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="76dp"
    android:layout_marginLeft="76dp"
    android:hint="0"
    android:textColor="#000000"
    android:textColorHint="#78909C"
    android:textSize="48sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.67" />
</androidx.constraintlayout.widget.ConstraintLayout>
</androidx.constraintlayout.widget.ConstraintLayout>

```

Source Code Activity_panjang.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"

```

```

android:background="@drawable/test2"
tools:context=".MainActivity">

<EditText
    android:id="@+id/etxtA"
    android:layout_width="288dp"
    android:layout_height="66dp"
    android:layout_marginStart="64dp"
    android:layout_marginLeft="64dp"
    android:layout_marginTop="129dp"
    android:layout_marginEnd="14dp"
    android:layout_marginRight="14dp"
    android:layout_marginBottom="9dp"
    android:background="@drawable/blue_clouds_phone_background_300x650"
    android:ems="10"
    android:hint="0"
    android:inputType="number"
    android:minHeight="48dp"
    android:textSize="48sp"
    app:layout_constraintBottom_toTopOf="@+id/btnCmtM"
    app:layout_constraintEnd_toStartOf="@+id/btnMtoKm"
    app:layout_constraintHorizontal_bias="0.0"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.081" />

<TextView
    android:id="@+id/txtHasil"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="64dp"
    android:layout_marginLeft="64dp"
    android:layout_marginTop="39dp"
    android:layout_marginBottom="233dp"
    android:hint="0"
    android:textColor="#000000"
    android:textSize="48sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/btnMtoKm" />

<Button
    android:id="@+id/btnCmtM"
    android:layout_width="91dp"
    android:layout_height="56dp"
    android:background="@drawable/blue_clouds_phone_background_300x650"
    android:fontFamily="sans-serif-medium"
    android:textSize="20sp"
    app:backgroundTint="#009688"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.262"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.357" />

<Button
    android:id="@+id/btnMtoCm"
    android:layout_width="92dp"
    android:layout_height="57dp"
    android:layout_marginStart="149dp"
    android:layout_marginLeft="149dp"
    android:background="@drawable/blue_clouds_phone_background_300x650"
    android:textSize="20sp"
    app:backgroundTint="#009688"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.011"
    app:layout_constraintStart_toStartOf="@+id/btnCmtM"

```

```
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.357" />
```

<Button

```
    android:id="@+id/btnClear"
    android:layout_width="99dp"
    android:layout_height="57dp"
    android:layout_marginStart="156dp"
    android:layout_marginLeft="156dp"
    android:layout_marginTop="140dp"
    android:layout_marginEnd="156dp"
    android:layout_marginRight="156dp"
    android:layout_marginBottom="15dp"
    android:background="@drawable/blue_clouds_phone_background_300x650"
    android:textSize="16sp"
    app:backgroundTint="#009688"
    app:layout_constraintBottom_toTopOf="@+id/btnChangee"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/btnMtoKm" />
```

<Button

```
    android:id="@+id/btnChangee"
    android:layout_width="199dp"
    android:layout_height="54dp"
    android:background="@drawable/blue_clouds_phone_background_300x650"
    android:textSize="16sp"
    app:backgroundTint="#009688"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.896" />
```

<Button

```
    android:id="@+id/btnMtoKm"
    android:layout_width="91dp"
    android:layout_height="57dp"
    android:layout_marginStart="84dp"
    android:layout_marginLeft="84dp"
    android:layout_marginTop="40dp"
    android:background="@drawable/blue_clouds_phone_background_300x650"
    android:textSize="20sp"
    app:backgroundTint="#009688"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/btnCmttoM"
    app:layout_constraintVertical_bias="0.002" />
```

<Button

```
    android:id="@+id/btnKmttoM"
    android:layout_width="92dp"
    android:layout_height="56dp"
    android:layout_marginTop="41dp"
    android:layout_marginEnd="86dp"
    android:layout_marginRight="86dp"
    android:layout_marginBottom="141dp"
    android:background="@drawable/blue_clouds_phone_background_300x650"
    android:textSize="20sp"
    app:backgroundTint="#009688"
    app:layout_constraintBottom_toTopOf="@+id/btnClear"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="1.0"
    app:layout_constraintStart_toEndOf="@+id/btnMtoKm"
    app:layout_constraintTop_toBottomOf="@+id/btnMtoCm"
    app:layout_constraintVertical_bias="0.0" />
```

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

Source Code MainActivity.java

```
package com.example.parktikum2;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    EditText nilaiA, nilaiB;
    Button tambah, kurang, kali, bagi, clear, change;
    TextView txthasil;

    double a, b, hasil;

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

        nilaiA      = findViewById(R.id.etxtA);
        nilaiB      = findViewById(R.id.etxtB);
        tambah      = findViewById(R.id.btnCmtoM);
        kurang      = findViewById(R.id.btnMtoKm);
        bagi        = findViewById(R.id.btnKmtoM);
        kali        = findViewById(R.id.btnMtoCm);
        clear       = findViewById(R.id.btnClear);
        txthasil    = findViewById(R.id.txtHasil);
        change      = findViewById(R.id.btnChange);

        clear.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                nilaiA.setText("");
                nilaiB.setText("");
                txthasil.setText("");
            }
        });

        tambah.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                a = Double.parseDouble(nilaiA.getText().toString());
                b = Double.parseDouble(nilaiB.getText().toString());
                hasil = a + b;
                txthasil.setText(String.valueOf(hasil));
            }
        });

        kurang.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                a = Double.parseDouble(nilaiA.getText().toString());
                b = Double.parseDouble(nilaiB.getText().toString());
                hasil = a - b;
                txthasil.setText(String.valueOf(hasil));
            }
        });

        kali.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
```

```

        a = Double.parseDouble(nilaiA.getText().toString());
        b = Double.parseDouble(nilaiB.getText().toString());
        hasil = a * b;
        txthasil.setText(String.valueOf(hasil));
    }
});

bagi.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        a = Double.parseDouble(nilaiA.getText().toString());
        b = Double.parseDouble(nilaiB.getText().toString());
        hasil = a / b;
        txthasil.setText(String.valueOf(hasil));
    }
});

change.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        startActivity(new Intent(MainActivity.this,
Panjang.class));
    }
});
}
}

```

Source Code Panjang.java

```

package com.example.parktikum2;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class Panjang extends AppCompatActivity {

    double a,total;

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

        EditText nilai;
        Button Cmtom, MtoCm, MtoKm, Kmtom, clear, change;
        TextView hasil;

        nilai = findViewById(R.id.etxtA);
        Cmtom = findViewById(R.id.btnCmtom);
        MtoCm = findViewById(R.id.btnMtoCm);
        MtoKm = findViewById(R.id.btnMtoKm);
        Kmtom = findViewById(R.id.btnKmtom);
        hasil = findViewById(R.id.txtHasil);
        clear = findViewById(R.id.btnClear);
        change= findViewById(R.id.btnChangee);

        clear.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                nilai.setText("");
                hasil.setText("");
            }
        });
    }
}

```

```

    }
    });

    CmttoM.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            a = Double.parseDouble(nilai.getText().toString());
            total = a/100;
            hasil.setText(String.valueOf(total + " m"));
        }
    });

    MtoCm.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            a = Double.parseDouble(nilai.getText().toString());
            total = a*100;
            hasil.setText(String.valueOf(total + " cm"));
        }
    });

    MtoKm.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            a = Double.parseDouble(nilai.getText().toString());
            total = a/1000;
            hasil.setText(String.valueOf(total + " km"));
        }
    });

    KmttoM.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            a = Double.parseDouble(nilai.getText().toString());
            total = a*1000;
            hasil.setText(String.valueOf(total + " m"));
        }
    });

    change.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            startActivity(new Intent(Panjang.this,
MainActivity.class));
        }
    });
}
}

```