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Calculator XML code:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    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:layout_margin="0dp"
    android:orientation="vertical" android:background="#e6b800"
    tools:context=".MainActivity">

    <TextView android:id="@+id/Calculator"
        android:layout_width="match_parent"
        " android:layout_height="57dp"
        android:layout_margin="20dp"
        android:text="Calculator"
        android:fontFamily="casual"
        android:textAlignment="center"
        android:textColor="@color/white"
        android:textSize="30dp" />
    <EditText android:id="@+id/res"
        android:layout_margin="20dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        " android:ems="10"
        android:inputType="textPersonName"
        android:textSize="40sp"
        android:gravity="right"
        android:textColor="@color/white"

        android:text="0" />
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:layout_marginTop="20dp">
        <Button android:id="@+id/nine"
            android:layout_width="match_parent"
            " android:layout_height="60dp"
            android:textSize="25dp"
            android:layout_weight="1"
            android:text="9"
            android:backgroundTint="#332900"/>
        <Button
            android:id="@+id/eight"
            android:layout_width="mat
```

```

        ch_parent"
        android:layout_height="60
        dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="8"
        android:backgroundTint="#
        332900"/>
<Button android:id="@+id/seven"
        android:layout_width="match_parent
        " android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="7"
        android:backgroundTint="#332900"/>
<Button android:id="@+id/plus"
        android:layout_width="match_parent
        " android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="+"
        android:backgroundTint="#332900"/>
</LinearLayout>
<LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:layout_marginTop="20dp">

        <Button android:id="@+id/six"
                android:layout_width="match_parent
                " android:layout_height="60dp"
                android:textSize="25dp"
                android:layout_weight="1"
                android:text="6"
                android:backgroundTint="#332900"/>
        <Button android:id="@+id/five"
                android:layout_width="match_parent
                " android:layout_height="60dp"
                android:textSize="25dp"
                android:layout_weight="1"
                android:text="5"
                android:backgroundTint="#332900"/>
        <Button android:id="@+id/four"
                android:layout_width="match_parent
                " android:layout_height="60dp"
                android:textSize="25dp"
                android:layout_weight="1"
                android:text="4"
                android:backgroundTint="#332900"/>
        <Button android:id="@+id/minus"
                android:layout_width="match_parent
                " android:layout_height="60dp"
                android:textSize="25dp"

```

```
        android:layout_weight="1"
        android:text="-"
        android:backgroundTint="#332900"/>
</LinearLayout>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginTop="20dp">
    <Button android:id="@+id/three"
        android:layout_width="match_parent"
        android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"

        android:text="3"
        android:backgroundTint="#332900"/>
    <Button android:id="@+id/two"
        android:layout_width="match_parent"
        android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="2"
        android:backgroundTint="#332900"/>
    <Button android:id="@+id/one"
        android:layout_width="match_parent"
        android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="1"
        android:backgroundTint="#332900"/>
    <Button android:id="@+id/multiply"
        android:layout_width="match_parent"
        android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="*"
        android:backgroundTint="#332900"/>
</LinearLayout>
```

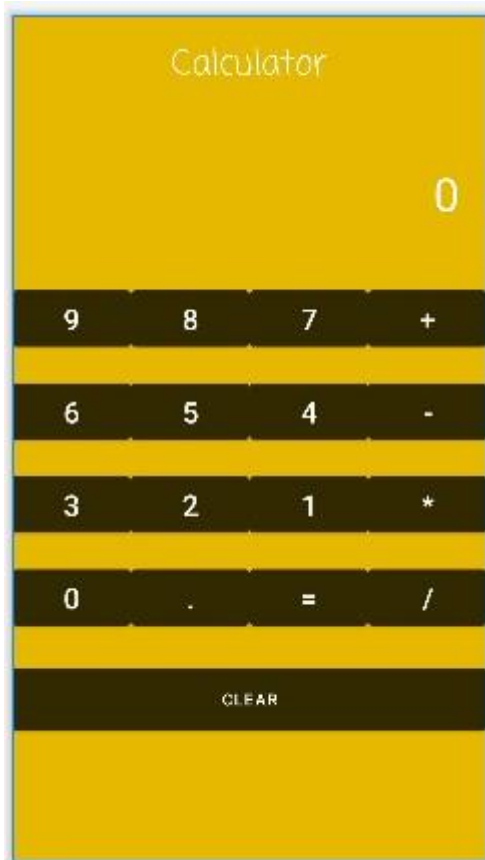
```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginTop="20dp">
    <Button android:id="@+id/zero"
        android:layout_width="match_parent"
        android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="0"
        android:backgroundTint="#332900"/>
```

```
<Button android:id="@+id/dot"
    android:layout_width="match_parent"
    " android:layout_height="60dp"
    android:textSize="25dp"

    android:layout_weight="1"
    android:text="."
    android:backgroundTint="#332900"/>

<Button android:id="@+id/equal"
    android:layout_width="match_parent"
    " android:layout_height="60dp"
    android:textSize="25dp"
    android:layout_weight="1"
    android:text="="
    android:backgroundTint="#332900"/>
<Button android:id="@+id/division"
    android:layout_width="match_parent"
    " android:layout_height="60dp"
    android:textSize="25dp"
    android:layout_weight="1"
    android:text="/"
    android:backgroundTint="#332900"/>
</LinearLayout>
<Button android:id="@+id/clear"
    android:layout_width="match_parent"
    " android:layout_height="65dp"
    android:backgroundTint="#332900"
    android:layout_marginTop="25dp"
    android:text="clear" />
</LinearLayout>
```

OUTPUT:



Calculator controller code:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    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:layout_margin="0dp"
    android:orientation="vertical" android:background="#e6b800"
    tools:context=".MainActivity">

    <TextView android:id="@+id/Calculator"
        android:layout_width="match_parent"
        " android:layout_height="57dp"
        android:layout_margin="20dp"
        android:text="Calculator"
        android:fontFamily="casual"
        android:textAlignment="center"
        android:textColor="@color/white"
        android:textSize="30dp" />
    <EditText android:id="@+id/res"
        android:layout_margin="20dp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        " android:ems="10"
        android:inputType="textPersonName"
        android:textSize="40sp"
        android:gravity="right"
        android:textColor="@color/white"

        android:text="0" />
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:layout_marginTop="20dp">
        <Button android:id="@+id/nine"
            android:layout_width="match_parent"
            " android:layout_height="60dp"
            android:textSize="25dp"
            android:layout_weight="1"
            android:text="9"
            android:backgroundTint="#332900"/>
        <Button
            android:id="@+id/eight"
            android:layout_width="match_parent"
            android:layout_height="60dp"
            android:textSize="25dp"
            android:layout_weight="1"
```

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        android:text="8"
        android:backgroundTint="#332900"/>
<Button android:id="@+id/seven"
        android:layout_width="match_parent"
        " android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="7"
        android:backgroundTint="#332900"/>
<Button android:id="@+id/plus"
        android:layout_width="match_parent"
        " android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="+"
        android:backgroundTint="#332900"/>
</LinearLayout>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginTop="20dp">

    <Button android:id="@+id/six"
        android:layout_width="match_parent"
        " android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="6"
        android:backgroundTint="#332900"/>
    <Button android:id="@+id/five"
        android:layout_width="match_parent"
        " android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="5"
        android:backgroundTint="#332900"/>
    <Button android:id="@+id/four"
        android:layout_width="match_parent"
        " android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="4"
        android:backgroundTint="#332900"/>
    <Button android:id="@+id/minus"
        android:layout_width="match_parent"
        " android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="-"
        android:backgroundTint="#332900"/>
</LinearLayout>

```

```

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginTop="20dp">
    <Button android:id="@+id/three"
        android:layout_width="match_parent"
        " android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"

        android:text="3"
        android:backgroundTint="#332900"/>
    <Button android:id="@+id/two"
        android:layout_width="match_parent"
        " android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="2"
        android:backgroundTint="#332900"/>
    <Button android:id="@+id/one"
        android:layout_width="match_parent"
        " android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="1"
        android:backgroundTint="#332900"/>
    <Button android:id="@+id/multiply"
        android:layout_width="match_parent"
        " android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="*"
        android:backgroundTint="#332900"/>
</LinearLayout>

```

```

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginTop="20dp">
    <Button android:id="@+id/zero"
        android:layout_width="match_parent"
        " android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="0"
        android:backgroundTint="#332900"/>
    <Button android:id="@+id/dot"
        android:layout_width="match_parent"
        " android:layout_height="60dp"
        android:textSize="25dp"

```



```

        android:layout_weight="1"
        android:text="."
        android:backgroundTint="#332900"/>

<Button android:id="@+id/equal"
        android:layout_width="match_parent"
        " android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="="
        android:backgroundTint="#332900"/>
<Button android:id="@+id/division"
        android:layout_width="match_parent"
        " android:layout_height="60dp"
        android:textSize="25dp"
        android:layout_weight="1"
        android:text="/"
        android:backgroundTint="#332900"/>
</LinearLayout>
<Button android:id="@+id/clear"
        android:layout_width="match_parent"
        " android:layout_height="65dp"
        android:backgroundTint="#332900"
        android:layout_marginTop="25dp"
        android:text="clear" />
</LinearLayout>

```

Java code:

```

package com.example.calculator162; import

androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle; import

android.view.View; import

android.widget.Button; import

android.widget.EditText;

public class MainActivity extends AppCompatActivity implements
View.OnClickListener {
    Button nine, eight, seven, six, five, four, three, two, one, plus,
minus, multiply, division, equal, zero, dot, clear;
    EditText res;
    String operatorPressed = " ";
    @Override protected void onCreate(Bundle
savedInstanceState)
    { super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main); res =

```

```

findViewById(R.id.res); zero =
findViewById(R.id.zero); one =
findViewById(R.id.one); two =
findViewById(R.id.two); three =
findViewById(R.id.three); four =
findViewById(R.id.four); five =
findViewById(R.id.five); six =
findViewById(R.id.six); seven =
findViewById(R.id.seven); eight =
findViewById(R.id.eight); nine =
findViewById(R.id.nine); plus =
findViewById(R.id.plus); minus =
findViewById(R.id.minus); multiply =
findViewById(R.id.multiply); division =
findViewById(R.id.division); dot =
findViewById(R.id.dot); equal =
findViewById(R.id.equal); clear =
findViewById(R.id.clear);
zero.setOnClickListener(this);
one.setOnClickListener(this);
two.setOnClickListener(this);
three.setOnClickListener(this);
four.setOnClickListener(this);
five.setOnClickListener(this);
six.setOnClickListener(this);
seven.setOnClickListener(this);
eight.setOnClickListener(this);
nine.setOnClickListener(this);
plus.setOnClickListener(this);
minus.setOnClickListener(this);
multiply.setOnClickListener(this);
division.setOnClickListener(this);
dot.setOnClickListener(this);
equal.setOnClickListener(this);
clear.setOnClickListener(this);
} @Override public void
onClick(View view) { double
finalRes = 0.0;
    switch (view.getId())
    { case R.id.zero:
      res.append("0"); break;
    case R.id.one:
      res.append("1");
      break;
    case R.id.two:
      res.append("2");
      break;
    case R.id.three:
      res.append("3");
      break;
    case R.id.four:
      res.append("4");
      break;

```

```

        case R.id.five:
            res.append("5");
            break;
        case R.id.six:
            res.append("6");
            break;
        case R.id.seven:
            res.append("7");
            break;
        case R.id.eight:
            res.append("8");
            break;
        case R.id.nine:
            res.append("9");
            break;
        case R.id.plus:
            res.append("+");
            operatorPressed = "+";
            break;
        case R.id.minus: res.append("-"); operatorPressed = "-";
            break;
        case R.id.multiply:
            res.append("*");
            operatorPressed = "*";
            break;
        case R.id.division:
            res.append("/");
            operatorPressed = "/";
            break;
        case R.id.dot:
            res.append(".");
            break;
        case R.id.equal:
            finalRes = (double)
            evaluate(res.getText().toString(),
operatorPressed);
            res.setText(String.valueOf(finalRes));
            break;
        case R.id.clear:
            res.setText(" ");
            break;
    }
}

private Object evaluate(String toString, String operatorPressed)
{ String[] tokens; tokens = toString.split("\\+|-|\\*|\\/");
double firstOperand = Double.parseDouble(tokens[0]); double
secondOperand = Double.parseDouble(tokens[1]); switch
(operatorPressed) { case "+": return firstOperand +
secondOperand;

```

```

        case "-": return firstOperand -
            secondOperand;
        case "*": return firstOperand *
            secondOperand;
        case "/": return firstOperand /
            secondOperand;
        default:
            return 0;
    }
}
}

```

OUTPUT:

