

# ACTIVITY MAIN.XML

```
<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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/black"
    android:orientation="vertical"
    tools:context=".MainActivity">
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="0dp"
        android:layout_weight="1"
        android:background="@color/black"
        android:gravity="bottom"
        android:orientation="vertical"
        android:padding="30dp">
        <TextView
            android:id="@+id/input"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:gravity="end"
            android:textColor="@color/white"
            android:textSize="30sp"
            tools:text="5+10-3" />
        <TextView
            android:id="@+id/output"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:gravity="end"
            android:textColor="@color/neon_green"
            android:textSize="50sp"
            tools:text="12" />
    </LinearLayout>
    <TableLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:stretchColumns="*">
        <TableRow>
            <androidx.appcompat.widget.AppCompatButton
                android:id="@+id/button_clear"
                style="@style/Button_Style"
                android:layout_width="wrap_content"
                android:layout_height="90dp"
                android:text="Del"
                android:textColor="@color/red" />
            <androidx.appcompat.widget.AppCompatButton
                android:id="@+id/button_bracket_left"
                style="@style/Button_Style"
                android:layout_width="wrap_content"
                android:layout_height="90dp"
                android:text="("
                android:textColor="@color/orange" />
            <androidx.appcompat.widget.AppCompatButton
                android:id="@+id/button_bracket_right"
                style="@style/Button_Style"
                android:layout_width="wrap_content"
                android:layout_height="90dp"
                android:text=")"
                android:textColor="@color/orange" />
            <androidx.appcompat.widget.AppCompatButton
                android:id="@+id/button_division"
                style="@style/Button_Style"
                android:layout_width="wrap_content"
                android:layout_height="90dp"
                android:text="/"
                android:textColor="@color/orange" />
        </TableRow>
    </TableLayout>
</LinearLayout>
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        style="@style/Button_Style"
        android:layout_width="wrap_content"
        android:layout_height="90dp"
        android:text="÷"
        android:textColor="@color/orange" />
</TableRow>
<TableRow>
    <androidx.appcompat.widget.AppCompatButton
        android:id="@+id/button_7"
        style="@style/Button_Style"
        android:layout_width="wrap_content"
        android:layout_height="90dp"
        android:text="7" />
    <androidx.appcompat.widget.AppCompatButton
        android:id="@+id/button_8"
        style="@style/Button_Style"
        android:layout_width="wrap_content"
        android:layout_height="90dp"
        android:text="8" />
    <androidx.appcompat.widget.AppCompatButton
        android:id="@+id/button_9"
        style="@style/Button_Style"
        android:layout_width="wrap_content"
        android:layout_height="90dp"
        android:text="9" />
    <androidx.appcompat.widget.AppCompatButton
        android:id="@+id/button_multiply"
        style="@style/Button_Style"
        android:layout_width="wrap_content"
        android:layout_height="90dp"
        android:text="X"
        android:textColor="@color/orange" />
</TableRow>
<TableRow>
    <androidx.appcompat.widget.AppCompatButton
        android:id="@+id/button_4"
        style="@style/Button_Style"
        android:layout_width="wrap_content"
        android:layout_height="90dp"
        android:text="4" />
    <androidx.appcompat.widget.AppCompatButton
        android:id="@+id/button_5"
        style="@style/Button_Style"
        android:layout_width="wrap_content"
        android:layout_height="90dp"
        android:text="5" />
    <androidx.appcompat.widget.AppCompatButton
        android:id="@+id/button_6"
        style="@style/Button_Style"
        android:layout_width="wrap_content"
        android:layout_height="90dp"
        android:text="6" />
    <androidx.appcompat.widget.AppCompatButton
        android:id="@+id/button_subtraction"
        style="@style/Button_Style"
        android:layout_width="wrap_content"
        android:layout_height="90dp"
        android:text="—"
        android:textColor="@color/orange" />
</TableRow>
<TableRow>
    <androidx.appcompat.widget.AppCompatButton
        android:id="@+id/button_1"
        style="@style/Button_Style"

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        android:layout_width="wrap_content"
        android:layout_height="90dp"
        android:text="1" />
<androidx.appcompat.widget.AppCompatButton
    android:id="@+id/button_2"
    style="@style/Button_Style"
    android:layout_width="wrap_content"
    android:layout_height="90dp"
    android:text="2" />
<androidx.appcompat.widget.AppCompatButton
    android:id="@+id/button_3"
    style="@style/Button_Style"
    android:layout_width="wrap_content"
    android:layout_height="90dp"
    android:text="3" />
<androidx.appcompat.widget.AppCompatButton
    android:id="@+id/button_addition"
    style="@style/Button_Style"
    android:layout_width="wrap_content"
    android:layout_height="90dp"
    android:text="+"
    android:textColor="@color/orange" />
</TableRow>
<TableRow>
    <androidx.appcompat.widget.AppCompatButton
        android:id="@+id/button_percent"
        style="@style/Button_Style"
        android:layout_width="wrap_content"
        android:layout_height="90dp"
        android:text="%" />
    <androidx.appcompat.widget.AppCompatButton
        android:id="@+id/button_0"
        style="@style/Button_Style"
        android:layout_width="wrap_content"
        android:layout_height="90dp"
        android:text="0" />
    <androidx.appcompat.widget.AppCompatButton
        android:id="@+id/button_dot"
        style="@style/Button_Style"
        android:layout_width="wrap_content"
        android:layout_height="90dp"
        android:text="." />
    <androidx.appcompat.widget.AppCompatButton
        android:id="@+id/button_equals"
        style="@style/Button_Style"
        android:layout_width="wrap_content"
        android:layout_height="90dp"
        android:background="@color/orange"
        android:text="="
        android:textColor="@color/white" />
</TableRow>
</TableLayout>
</LinearLayout>

```

Color.xml

```

<?xml version="1.0" encoding="utf-8"?>
<resources>
    <color name="purple_200">#FFBB86FC</color>
    <color name="purple_500">#FF6200EE</color>
    <color name="purple_700">#FF3700B3</color>
    <color name="teal_200">#FF03DAC5</color>
    <color name="teal_700">#FF018786</color>

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<color name="black">#FF000000</color>
<color name="white">#FFFFFFF</color>
<color name="red">#FF3131</color>
<color name="pink">#FFC0CB</color>
<color name="orange">#FFA500</color>
<color name="neon_green">#39FF14</color>
<style name="Button_Style" parent="Widget.AppCompat.Button.Colored">
    <item name="android:background">@color/white</item>
    <item name="android:textSize">24sp</item>
    <item name="android:textColor">@color/black</item>
    <item name="android:gravity">center</item>
</style>
</resources>

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MAINACTIVITYKOTLIN

```

package com.example.myapplication

import android.icu.text.DecimalFormat
import android.os.Bundle
import androidx.activity.enableEdgeToEdge
import androidx.appcompat.app.AppCompatActivity
import androidx.core.content.ContextCompat
import androidx.core.view.ViewCompat
import androidx.core.view.WindowInsetsCompat
import com.example.myapplication.databinding.ActivityMainBinding
import net.objecthunter.exp4j.ExpressionBuilder

class MainActivity : AppCompatActivity() {
    private lateinit var binding: ActivityMainBinding
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        enableEdgeToEdge()
        binding = ActivityMainBinding.inflate(layoutInflater)
        setContentView(binding.root)

        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main)) {
v, insets ->
            val systemBars =
insets.getInsets(WindowInsetsCompat.Type.systemBars())
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,
systemBars.bottom)
            insets
        }
        binding.buttonClear.setOnClickListener{
            binding.input.text = " "
            binding.output.text = " "
        }
        binding.buttonBracketLeft.setOnClickListener {
            addToInputText("(")
        }
        binding.buttonBracketRight.setOnClickListener {
            addToInputText(")")
        }
        binding.button0.setOnClickListener {
            addToInputText("0")
        }
        binding.button1.setOnClickListener {
            addToInputText("1")
        }
        binding.button2.setOnClickListener {
            addToInputText("2")
        }
    }
}

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        binding.button3.setOnClickListener {
            addToInputText("3")
        }
        binding.button4.setOnClickListener {
            addToInputText("4")
        }
        binding.button5.setOnClickListener {
            addToInputText("5")
        }
        binding.button6.setOnClickListener {
            addToInputText("6")
        }
        binding.button7.setOnClickListener {
            addToInputText("7")
        }
        binding.button8.setOnClickListener {
            addToInputText("8")
        }
        binding.button9.setOnClickListener {
            addToInputText("9")
        }
        binding.buttonDot.setOnClickListener {
            addToInputText(".")
        }
        binding.buttonDivision.setOnClickListener {
            addToInputText("÷")
        }
        binding.buttonMultiply.setOnClickListener {
            addToInputText("x")
        }
        binding.buttonSubtraction.setOnClickListener {
            addToInputText("-")
        }
        binding.buttonAddition.setOnClickListener {
            addToInputText("+")
        }
        binding.buttonEquals.setOnClickListener {
            showResult()
        }
        binding.buttonPercent.setOnClickListener {
            addToInputText("%")
        }
    }

    private fun addToInputText(s: String) {
        binding.input.append(s)
    }

    private fun getInputExpression(): String {
        return binding.input.text.toString()
    }

    private fun showResult() {
        try {
            val expression = getInputExpression().replace("%", "/100") //
            val result = ExpressionBuilder(expression).build().evaluate()
            binding.output.text =
                DecimalFormat("0.#####").format(result).toString()
            binding.output.setTextColor(
                ContextCompat.getColor(this,
                    R.color.neon_green)
            )
        } catch (e: Exception) {
            binding.output.text = "Ошибка"
            binding.output.setTextColor(ContextCompat.getColor(this,
                R.color.red))
        }
    }

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    }
}

BUILD.GRADEL
plugins {
    alias(libs.plugins.android.application)
    alias(libs.plugins.kotlin.android)
}

android {
    namespace = "com.example.myapplication"
    compileSdk = 34

    defaultConfig {
        applicationId = "com.example.myapplication"
        minSdk = 24
        targetSdk = 34
        versionCode = 1
        versionName = "1.0"

        testInstrumentationRunner = "androidx.test.runner.AndroidJUnitRunner"
    }

    buildTypes {
        release {
            isMinifyEnabled = false
            proguardFiles(
                getDefaultProguardFile("proguard-android-optimize.txt"),
                "proguard-rules.pro"
            )
        }
    }

    compileOptions {
        sourceCompatibility = JavaVersion.VERSION_1_8
        targetCompatibility = JavaVersion.VERSION_1_8
    }

    kotlinOptions {
        jvmTarget = "1.8"
    }

    buildFeatures{
        viewBinding = true
    }
}

dependencies {
    implementation(libs.exp4j)
    implementation(libs.androidx.core.ktx)
    implementation(libs.androidx.appcompat)
    implementation(libs.material)
    implementation(libs.androidx.activity)
    implementation(libs.androidx.constraintlayout)
    testImplementation(libs.junit)
    androidTestImplementation(libs.androidx.junit)
    androidTestImplementation(libs.androidx.espresso.core)
}

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