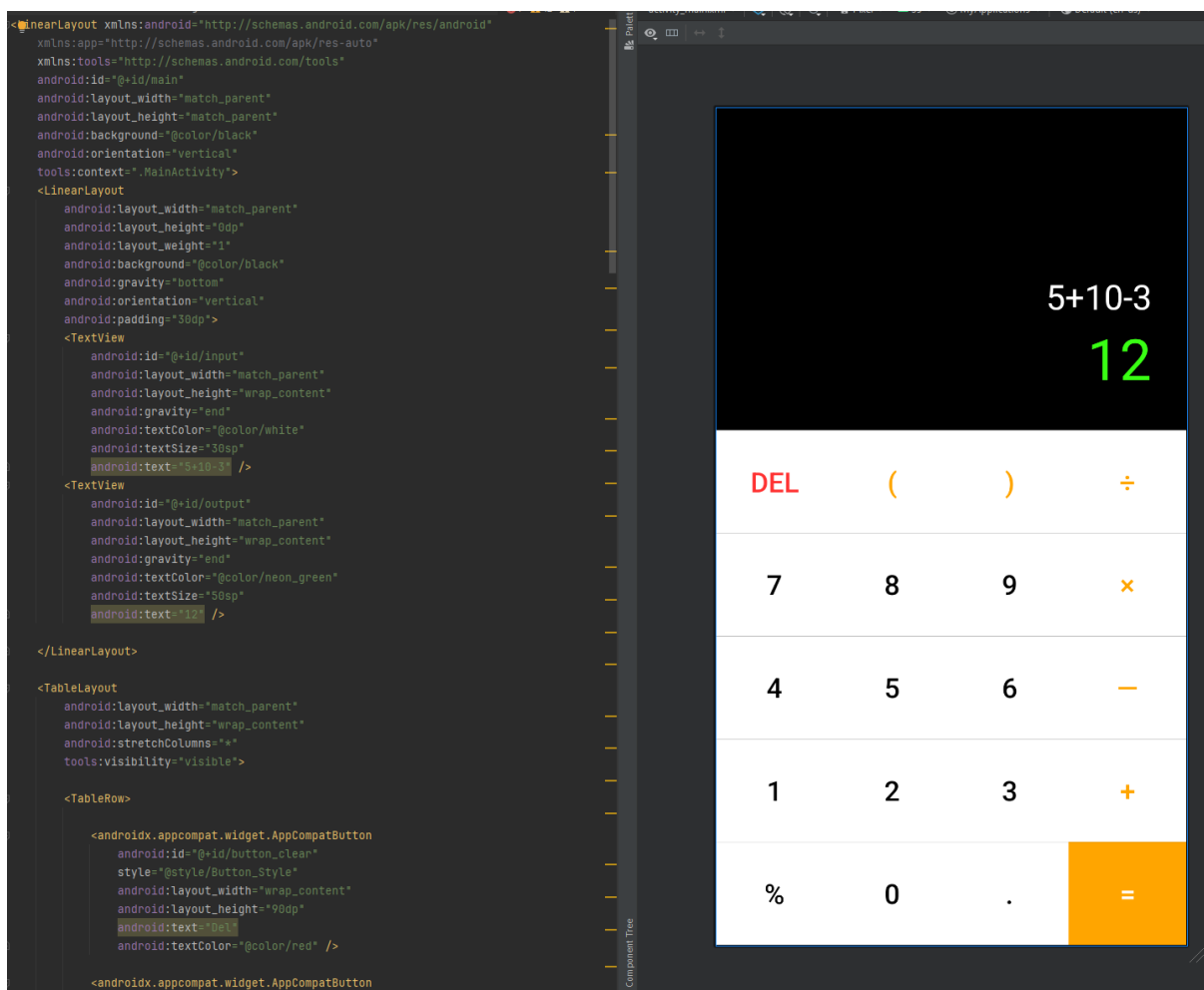# Практика 9

КАЛЬКУЛЬТРЖКПМ😊

Романов feat's Полудницын

Создали калькулятор и познакомились с библиотекой exp4j, создали начальную заставку для нашего калькулятора.

```xml
<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>
<color name="black">#FF000000</color>
<color name="white">#FFFFFFFF</color>
<color name="red">#FF3131</color>
<color name="pink">#FFC0CB</color>
<color name="orange">#FFA500</color>
<color name="neon_green">#39FF14</color>
```

Первым делом мы присвоили цвета и стили в нашем калькуляторе

Очень сильно меня замучело Gradle присвоение viewBilding

```kotlin
class MainActivity : AppCompatActivity() {

    lateinit var binding: ActivityMainBinding

    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        enableEdgeToEdge()

        binding = ActivityMainBinding.inflate(layoutInflater)

        binding.buttonClear.setOnClickListener {
            binding.input.text = " "
            binding.output.text = " "
        }
        binding.buttonBracketLeft.setOnClickListener {
            addToInputText( value: "(")
        }
        binding.buttonBracketLeft.setOnClickListener {
            addToInputText( value: ")")
        }
        binding.button0.setOnClickListener {
            addToInputText( value: "0")
        }
        binding.button1.setOnClickListener {
            addToInputText( value: "1")
        }
        binding.button2.setOnClickListener {
            addToInputText( value: "2")
        }
        binding.button3.setOnClickListener {
            addToInputText( value: "3")
        }
        binding.button4.setOnClickListener {
            addToInputText( value: "4")
        }
        binding.button5.setOnClickListener {
            addToInputText( value: "5")
        }
        binding.button6.setOnClickListener {
            addToInputText( value: "6")
        }
        binding.button7.setOnClickListener {
            addToInputText( value: "7")
        }
        binding.button8.setOnClickListener {
            addToInputText( value: "8")
        }
        binding.button9.setOnClickListener {
            addToInputText( value: "9")
        }
        binding.buttonDot.setOnClickListener {
            addToInputText( value: ".")
        }
        binding.buttonDivision.setOnClickListener {
```

Дальше мы использовали библиотеку exp4j и подключили её в build.gradle.kts:

```kotlin
class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        }
        binding.buttonAddition.setOnClickListener {
            addToInputText( value: "+")
        }
        binding.buttonEquals.setOnClickListener {
            showResult()
        }
        binding.buttonPercent.setOnClickListener {
            addToInputText( value: "%")
        }

        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
        }

    }

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

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

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

```kotlin
}

android {
    namespace = "com.example.myapplication9"
    compileSdk = 35

    defaultConfig {
        applicationId = "com.example.myapplication9"
        minSdk = 24
        targetSdk = 34
        versionCode = 1
        versionName = "1.0"

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

    buildTypes {
        release {
            isMinifyEnabled = false
            proguardFiles(
                getDefaultProguardFile( name: "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)

}
```
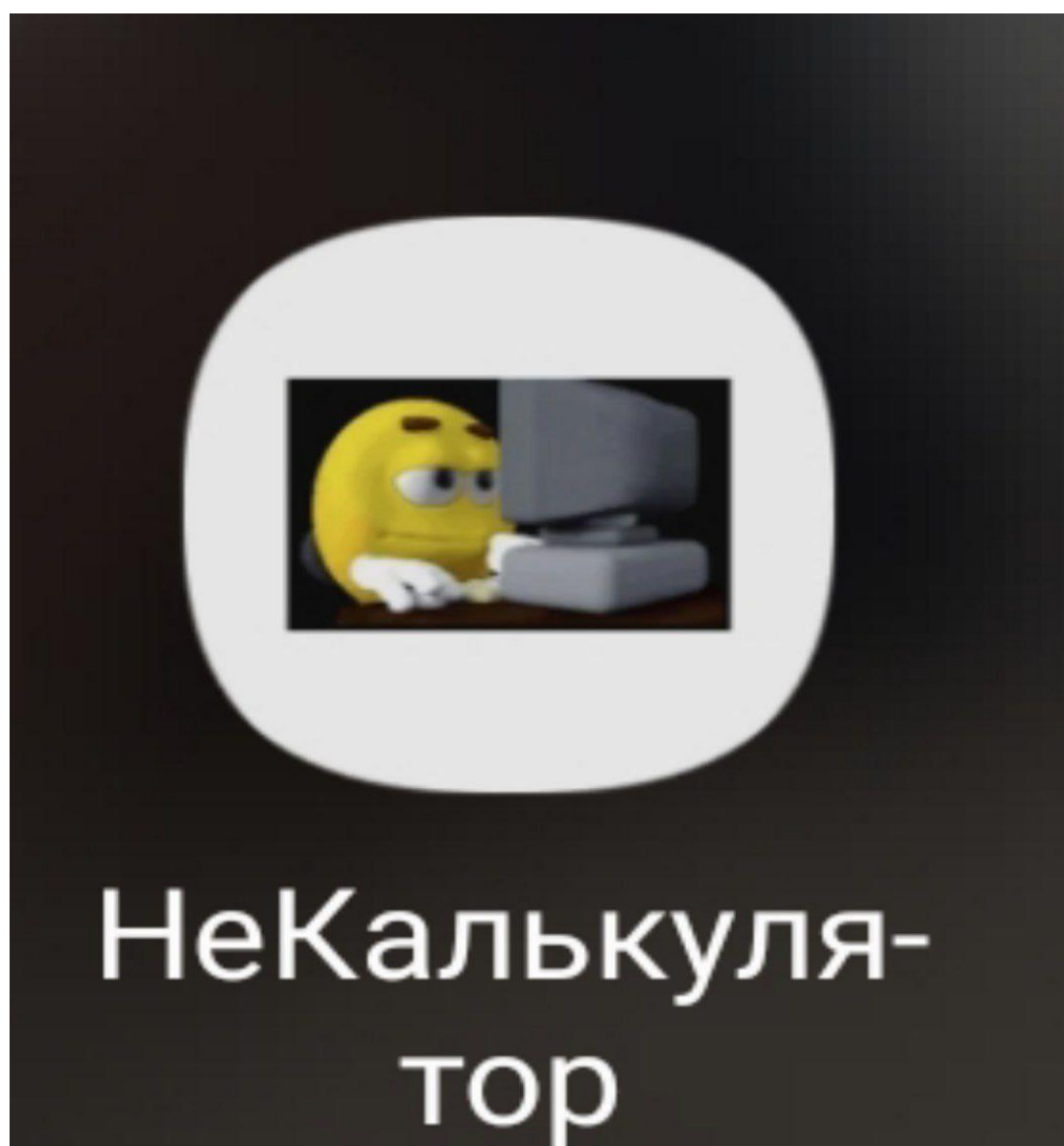
Потом мы протестировали наше приложение и создали ему заставку😊

Лилпапс жу-жу-жу

ГОТОВО !