

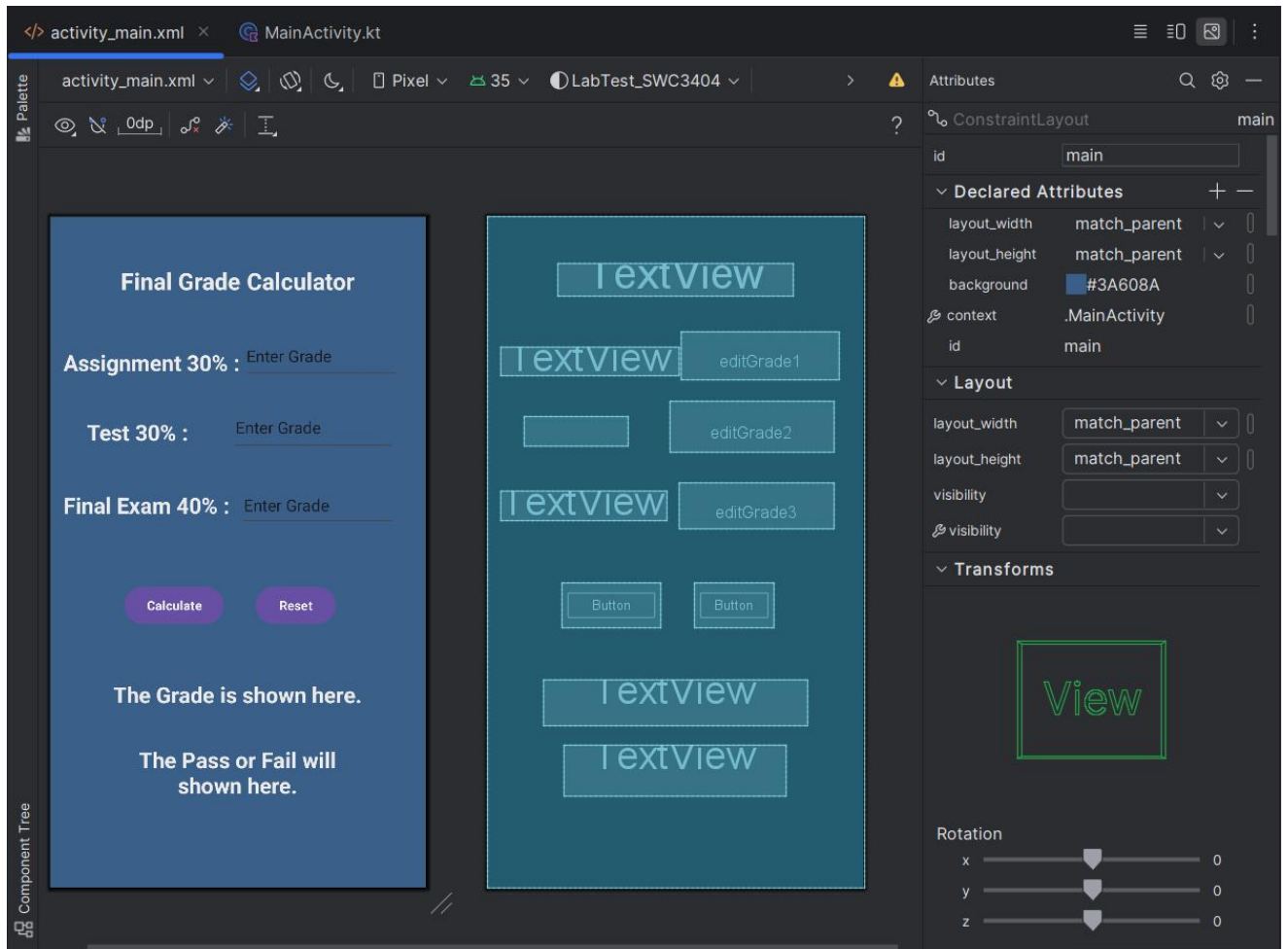
Name : Ain Najihah binti Mohd Fahmi @ Izriq

Student ID : AM2307013916

LAB TEST SWC3404

20/3/2025

## User Interface



```
activity_main.xml MainActivity.kt x
1 package com.example.labtest_sw3404
2
3 import android.os.Bundle
4 import android.widget.Button
5 import android.widget.EditText
6 import android.widget.TextView
7 import androidx.appcompat.app.AppCompatActivity
8 import java.text.DecimalFormat
9
10 class MainActivity : AppCompatActivity() {
11
12     // initialize all components
13     private lateinit var editGrade1: EditText
14     private lateinit var editGrade2: EditText
15     private lateinit var editGrade3: EditText
16     private lateinit var grade_result: TextView
17     private lateinit var pass_fail: TextView
18     private lateinit var btn_calc: Button
19     private lateinit var btn_reset: Button
20
21     override fun onCreate(savedInstanceState: Bundle?) {
22         super.onCreate(savedInstanceState)
23         setContentView(R.layout.activity_main)
24
25         // link ui components
26         editGrade1 = findViewById(R.id.editGrade1)
27         editGrade2 = findViewById(R.id.editGrade2)
28         editGrade3 = findViewById(R.id.editGrade3)
29         grade_result = findViewById(R.id.grade_result)
30         pass_fail = findViewById(R.id.pass_fail)
31         btn_calc = findViewById(R.id.btn_calc)
32         btn_reset = findViewById(R.id.btn_reset)
```

Coding part 1

```
</> activity_main.xml  MainActivity.kt x
10  class MainActivity : AppCompatActivity() {
21      override fun onCreate(savedInstanceState: Bundle?) {
34          // function for calculate button
35          btn_calc.setOnClickListener {
36              // convert input to numbers, handling empty values safely
37              val grade1 = editGrade1.text.toString().toDoubleOrNull() ?: 0.0
38              val grade2 = editGrade2.text.toString().toDoubleOrNull() ?: 0.0
39              val grade3 = editGrade3.text.toString().toDoubleOrNull() ?: 0.0
40
41              // initialize decimalformat
42              val df = DecimalFormat(pattern: "#.##")
43
44              // compute weighted total grade
45              val totalGrade = (grade1 * 0.3) + (grade2 * 0.3) + (grade3 * 0.4)
46
47              // display result grade
48              grade_result.text = "final grade: ${df.format(totalGrade)}"
49
50              // determine pass or fail
51              pass_fail.text = if (totalGrade >= 50) "status: pass" else "status: fail"
52          }
53
54          // function for reset button
55          btn_reset.setOnClickListener {
56              // clear all input fields and results
57              editGrade1.setText("")
58              editGrade2.setText("")
59              editGrade3.setText("")
60              grade_result.text = ""
61              pass_fail.text = ""
62          }
63      }
}
```

> labtest\_sw3404 > MainActivity 65:1 LF UTF-8 4 spaces

## Coding Part 2

LINK GOOGLE DRIVE

<https://drive.google.com/drive/folders/1vGorFhSyZHI5CxAUeMYBJqarqZx3ed5C?usp=sharing>