

Lampiran 2 Source Code dan Transkrip Nilai

2.1. Lampiran Source Code

```
FUNCTION_BLOCK rekomendasi
// Define input variables
VAR_INPUT
    dividen : REAL;
    pbv : REAL;
    roe : REAL;
    fibo : REAL;
    vchange : REAL;
END_VAR
// Define output variable
VAR_OUTPUT
    rekomendasi: REAL;
END_VAR
// Fuzzify input variable 'dividen': {'rendah', 'tinggi'}
FUZZIFY dividen
    TERM rendah := (0,1) (5,0) ;
    TERM tinggi := (5,0) (20,1) ;
END_FUZZIFY
// Fuzzify input variable 'pbv': { 'rendah', 'sedang', 'tinggi' }
FUZZIFY pbv
    TERM rendah := (-10,1) (0,0);
    TERM sedang := (0,0) (2.5,1) (5,0);
    TERM tinggi := (5,0) (50,1);
END_FUZZIFY
```

```

// Fuzzify input variable 'roe': { 'rendah', 'tinggi' }
FUZZIFY roe
    TERM rendah := (-10, 1) (5, 0) ;
    TERM tinggi := (5,0) (30,1) ;
END_FUZZIFY

// Fuzzify input variable 'fibo': { 'rendah', 'sedang', 'tinggi' }
FUZZIFY fibo
    TERM rendah := (0, 1) (0.382, 0);
    TERM sedang := (0.382,0) (0.5, 1) (0.618,0);
    TERM tinggi := (0.618,0) (1,1);
END_FUZZIFY

// Fuzzify input variable 'vchange': { 'rendah', 'tinggi' }
FUZZIFY vchange
    TERM rendah := (-99, 1) (0, 0) ;
    TERM tinggi := (0,0) (100,1) ;
END_FUZZIFY

// Defuzzify output variable 'rekomendasi' : { 'tbeli', 'beli' }
DEFUZZIFY rekomendasi
    TERM tbeli := (0,1) (50,0);
    TERM beli := (50,0) (100,1);

METHOD : COG;           // Use 'Center Of Gravity' defuzzification method
DEFAULT := 0;           // Default value is 0 (if no rule activates defuzzifier)
END_DEFUZZIFY

// Inference rules
RULEBLOCK No1
    AND : MIN; // Use 'min' for 'and'

```

ACT : MIN; // Use 'min' activation method

ACCU : MAX;// Use 'max' accumulation method

RULE 1 : IF fibo IS rendah AND vchange IS tinggi THEN rekomendasi IS beli;

RULE 2 : IF fibo IS rendah AND vchange IS rendah THEN rekomendasi IS tbeli;

RULE 3 : IF fibo IS sedang AND vchange IS tinggi THEN rekomendasi IS beli;

RULE 4 : IF fibo IS sedang AND vchange IS rendah THEN rekomendasi IS tbeli;

RULE 5 : IF fibo IS tinggi AND vchange IS tinggi THEN rekomendasi IS beli;

RULE 6 : IF fibo IS tinggi AND vchange IS rendah THEN rekomendasi IS tbeli;

RULE 7 : IF dividen IS rendah AND pbv IS rendah AND roe is rendah THEN rekomendasi IS tbeli;

RULE 8 : IF dividen IS rendah AND pbv IS rendah AND roe is tinggi THEN rekomendasi IS tbeli;

RULE 9 : IF dividen IS rendah AND pbv IS sedang AND roe is rendah THEN rekomendasi IS tbeli;

RULE 10 : IF dividen IS rendah AND pbv IS sedang AND roe is tinggi THEN rekomendasi IS beli;

RULE 11 : IF dividen IS rendah AND pbv IS tinggi AND roe is rendah THEN rekomendasi IS tbeli;

RULE 12 : IF dividen IS rendah AND pbv IS tinggi AND roe is tinggi THEN rekomendasi IS tbeli;

RULE 13 : IF dividen IS tinggi AND pbv IS rendah AND roe is rendah THEN rekomendasi IS tbeli;

RULE 14 : IF dividen IS tinggi AND pbv IS rendah AND roe is tinggi THEN rekomendasi IS beli;

RULE 15 : IF dividen IS tinggi AND pbv IS sedang AND roe is tinggi THEN rekomendasi IS beli;

RULE 16 : IF dividen IS tinggi AND pbv IS sedang AND roe is rendah
THEN rekomendasi IS tbeli;

RULE 17 : IF dividen IS tinggi AND pbv IS tinggi AND roe is tinggi
THEN rekomendasi IS beli;

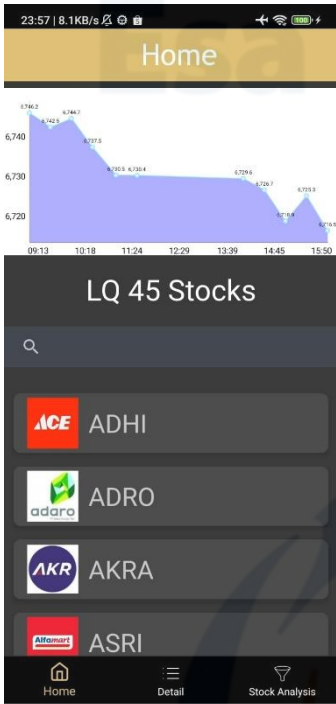
RULE 18 : IF dividen IS tinggi AND pbv IS tinggi AND roe is rendah
THEN rekomendasi IS tbeli;

END_RULEBLOCK

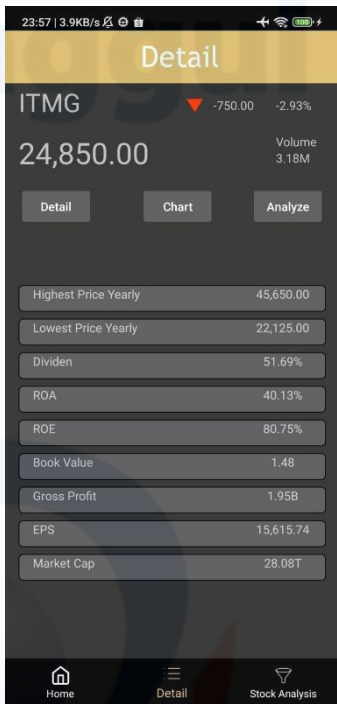
END_FUNCTION_BLOCK

```
fun main(a:Double, b: Double, c:Double, d:Double, e:Double) {  
    val inputStream = context!!.assets.open( fileName: "rekomendasi.fcl")  
    val fuzzySystem = FIS.load(inputStream, verbose: true)  
    if (fuzzySystem == null) {  
        binding.textView12.text = "Fail"  
        return  
    }  
    fuzzySystem.setVariable( varName: "dividen", a)  
    fuzzySystem.setVariable( varName: "pbv", b)  
    fuzzySystem.setVariable( varName: "roe", c)  
    fuzzySystem.setVariable( varName: "fibo", d)  
    fuzzySystem.setVariable( varName: "vchange", e)  
    fuzzySystem.evaluate()  
    val req = fuzzySystem.getVariable( varName: "rekomendasi").value  
    binding.textView15.text = rounding(req).toString()  
    if (req >= 60){  
        binding.textView13.text = "Beli"  
    }  
    else  
    {  
        binding.textView13.text = "Tidak Beli"  
    }  
}
```

Lampiran 3 UI Aplikasi



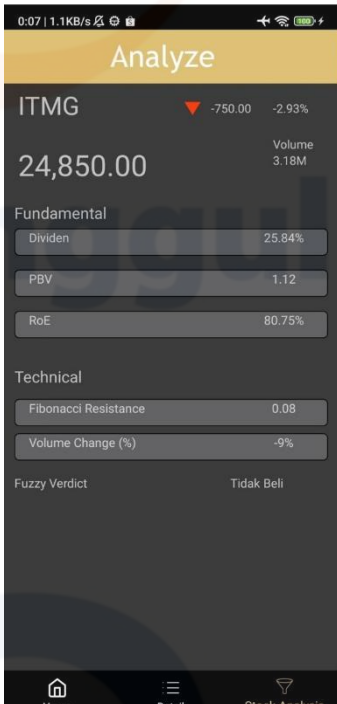
Tampilan Home



Tampilan Detail



Tampilan Chart



Tampilan Analyze