

ANALYZE THIS CODE AND SPECIFY THE FINAL CONTENTS IN t0, t1, t2, t3

.data

→ z: .word 11
 n: .word 8
 → w: .word 2, 0, 1, 7, -2, 5, 9, 3, 11, 17, -31

.text

lui t0, 0x10010
 lw t1, 24(t0)
 lw t2, 28(t0)
 or t3, t1, t2

t0 → contains 10010000
 t1 → = -2
 t2 → = 5
 t3 → = -1

$$\begin{array}{rcl} -2 & = & 1110 \\ 5 & = & 0101 \\ \hline 1111 & = & -1 \text{ (in 2-compl)} \end{array} \quad \text{OR}$$

.data

.asciz "Alessandro" #this takes 11 bytes
 .align 2 #this aligns you to a multiple of 4 (12 in this case)
 .word 5, 7, 8
 x: .word 6

$$\text{align } K \rightarrow 2^K$$

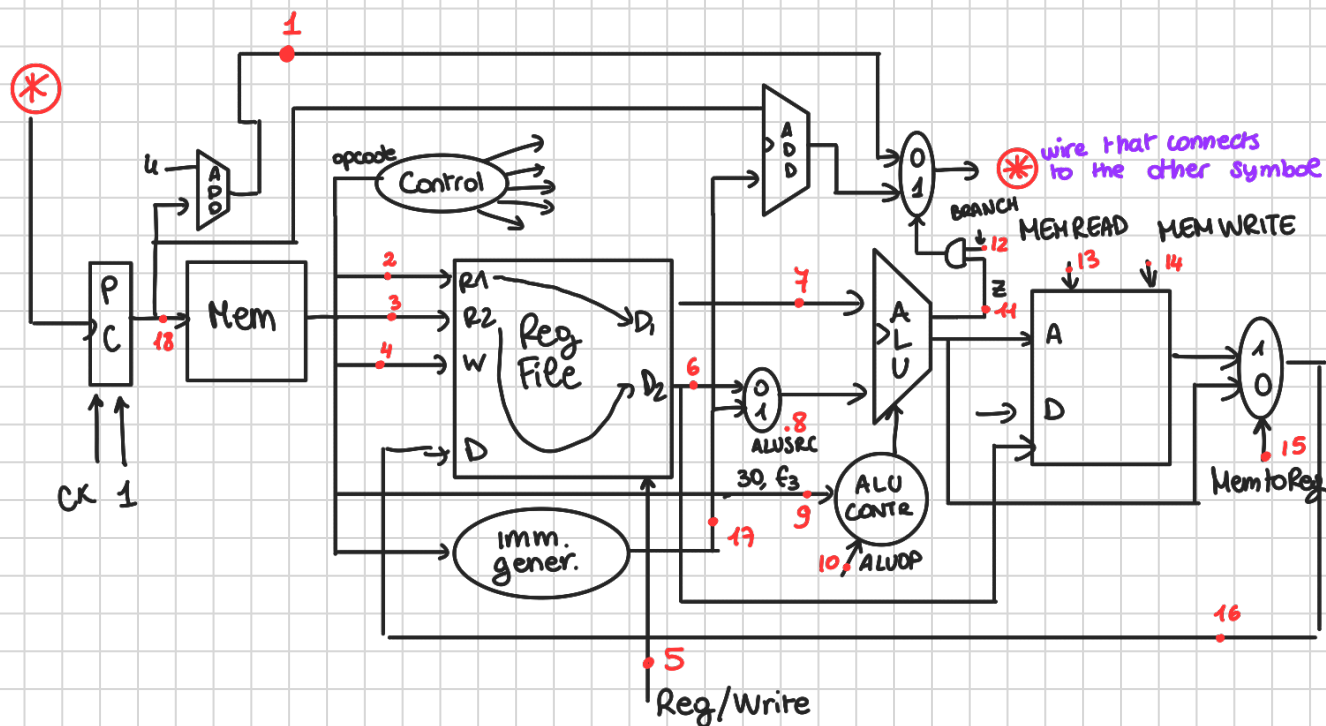
.text

la t0, x # translate this pseudo into raw instr.

lui t0, 0x10010
 addi t0, t0, 24] EXTENDED

lw t0, x # translate into raw instr.

lui t0, 0x10010
 lw t0, 24(t0)] EXTENDED



α 5,5,6

PC 0x0040010

R5 12

R6 7

1. 0x0040014 (PC+4)
2. R5
3. R6
4. R5
5. 1 (WRITE)
6. 7 (content of R6)
7. 12 (= R5)
8. 0
9. f3 000 30th = 0?
NOT SURE

10. we don't know
11. 0
12. 0
13. 0
14. 0
15. 0
16. 15 (or between 7 and 12)
17. garbage
18. 0040010 (PC)

SW 5, 12(6)

PC 0x0040010

R5 12

R6 7

1. 0x0040014 (PC+4)
2. R6 (rs1)
3. R5 (rs2)
4. garbage (part of immediate?)
5. 0 (READ)
6. 12 (content of R5)
7. 7 (= R6)
8. 1
9. check green sheet

10. we don't know
11. 0
12. 0
13. 0
14. 1
15. don't care
16. 19 (sum between offset + 7)
17. 12 (immediate)
18. 0040010 (PC)