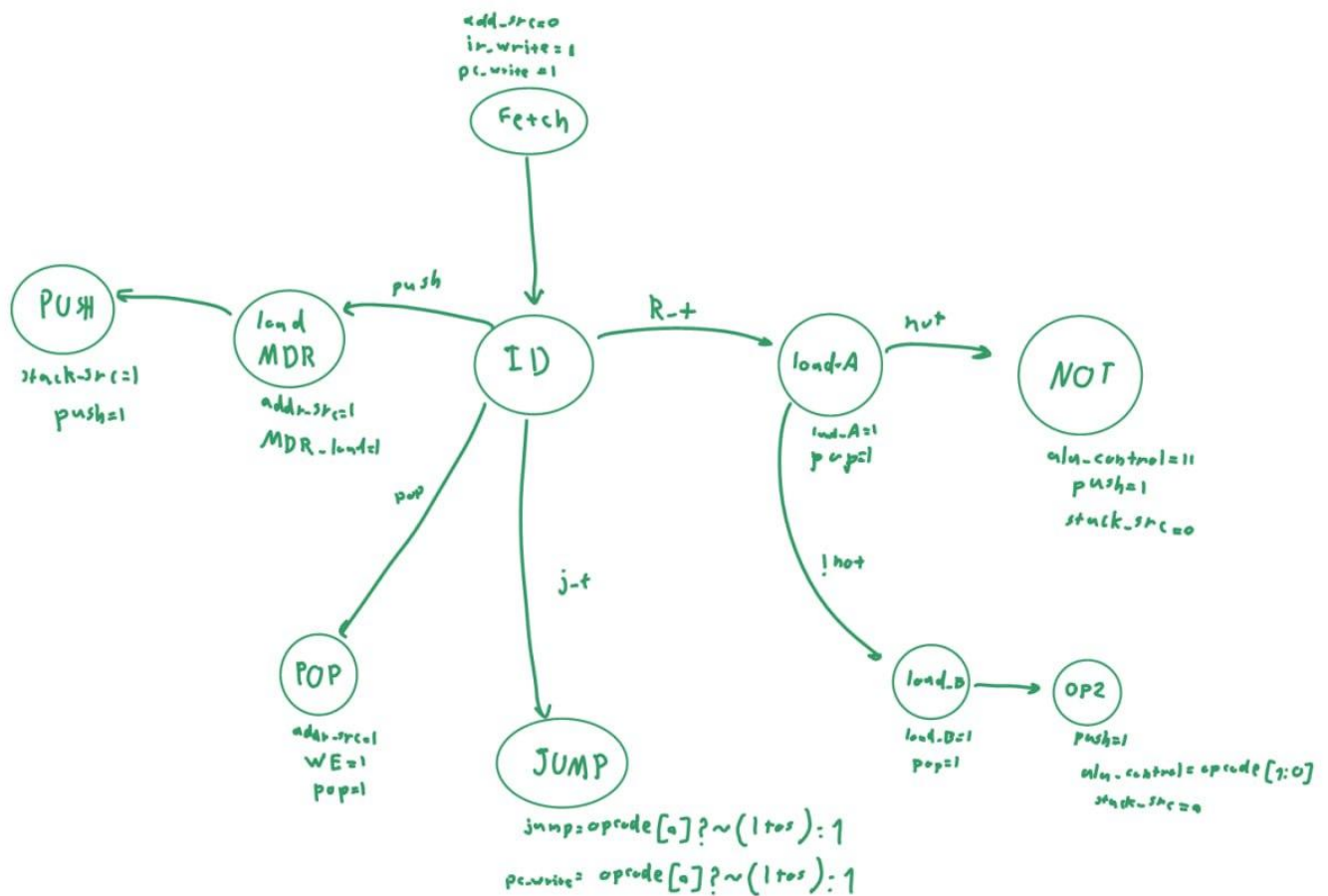
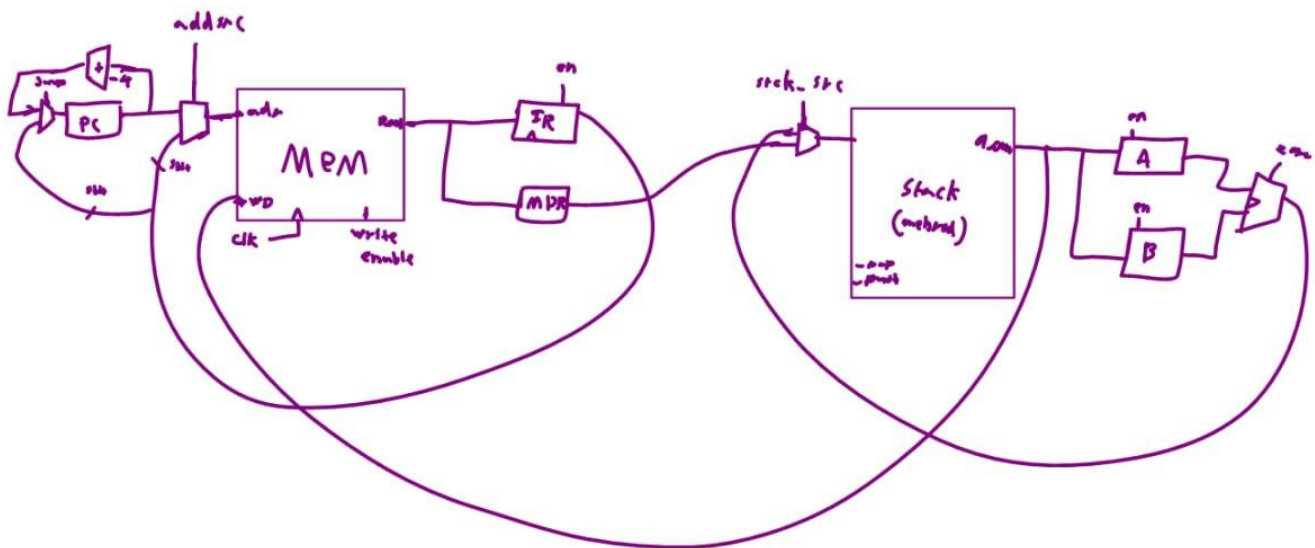


# CA3 Report:

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Also the instruction handling is that we store each instruction in a line in the .mem file and since the instructions are only 8 bits they can be stored in a single byte so we move the pc 1 by 1 instead of 4 by 4 .

**Test program** : we have put the numbers 1,2,3,4 from the element 25<sup>th</sup> to 28<sup>th</sup> then we store the result in the 29<sup>th</sup> element of the memory.

Here is the instructions:

PUSH 25 --> 10011001

PUSH 26 --> 10011010

ADD --> 00000000

PUSH 27 --> 10011011

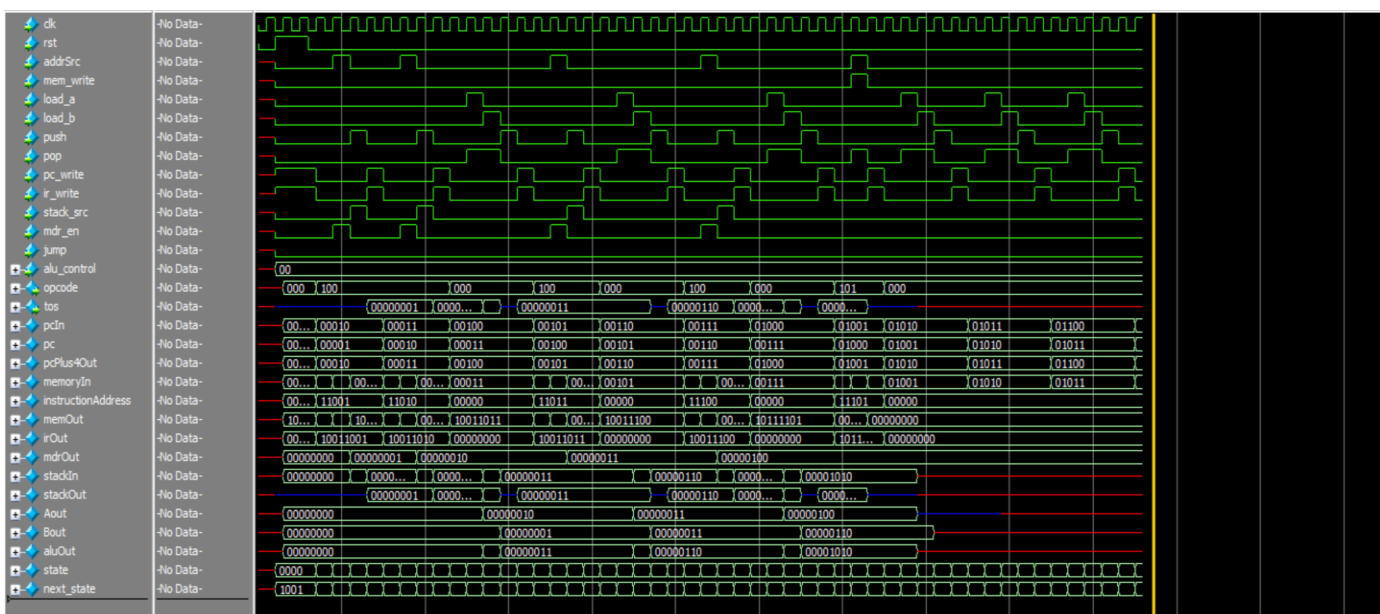
ADD --> 00000000

PUSH 28 --> 10011100

ADD --> 00000000

POP 29 --> 10111101

we can see the results here:



And here is the memory list:

---

0	153
1	154
2	0
3	155
4	0
5	156
6	0
7	189
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	0
20	0
21	0
22	0
23	0
24	0
25	1
26	2
27	3
28	4
29	10
30	0
31	0

I have set the radix to decimal:

The numbers stored in the 25<sup>th</sup> to 28<sup>th</sup> are 1,2,3,4 as we previously mentioned.

the answer was supposed to be stored in the 29<sup>th</sup> element as we can see the number 10 is correctly stored in the 29<sup>th</sup> element of the mem.