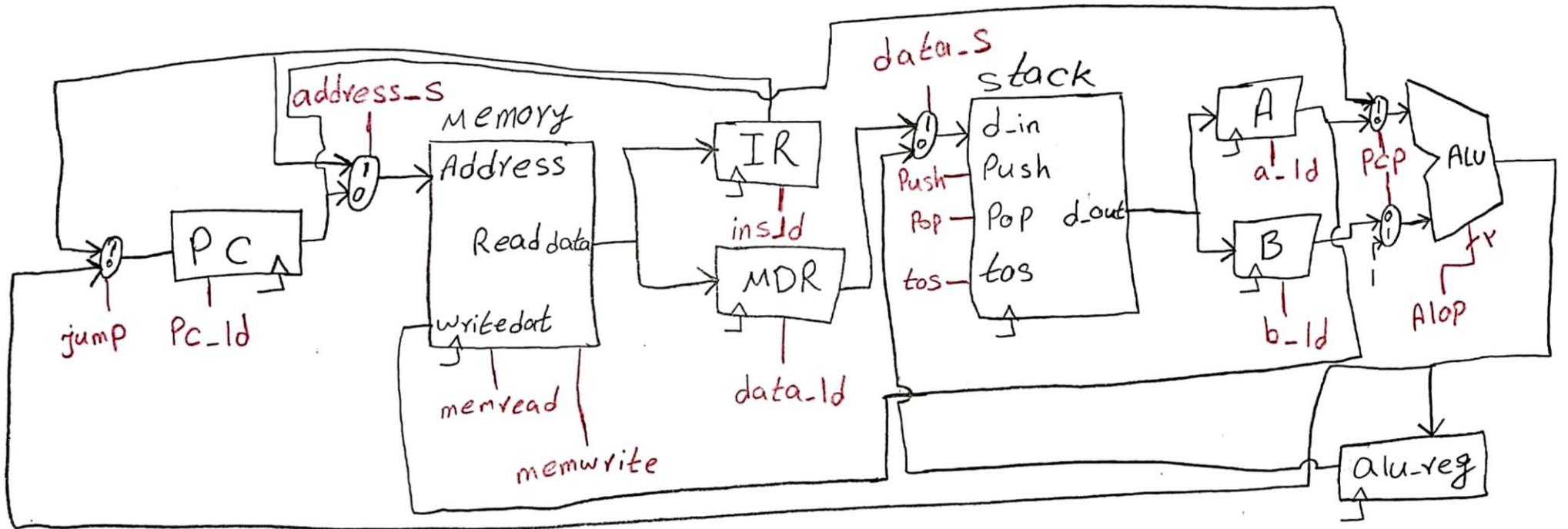# COMPUTER ASSIGNMENT 4 (STACK BASED PROCESSOR)
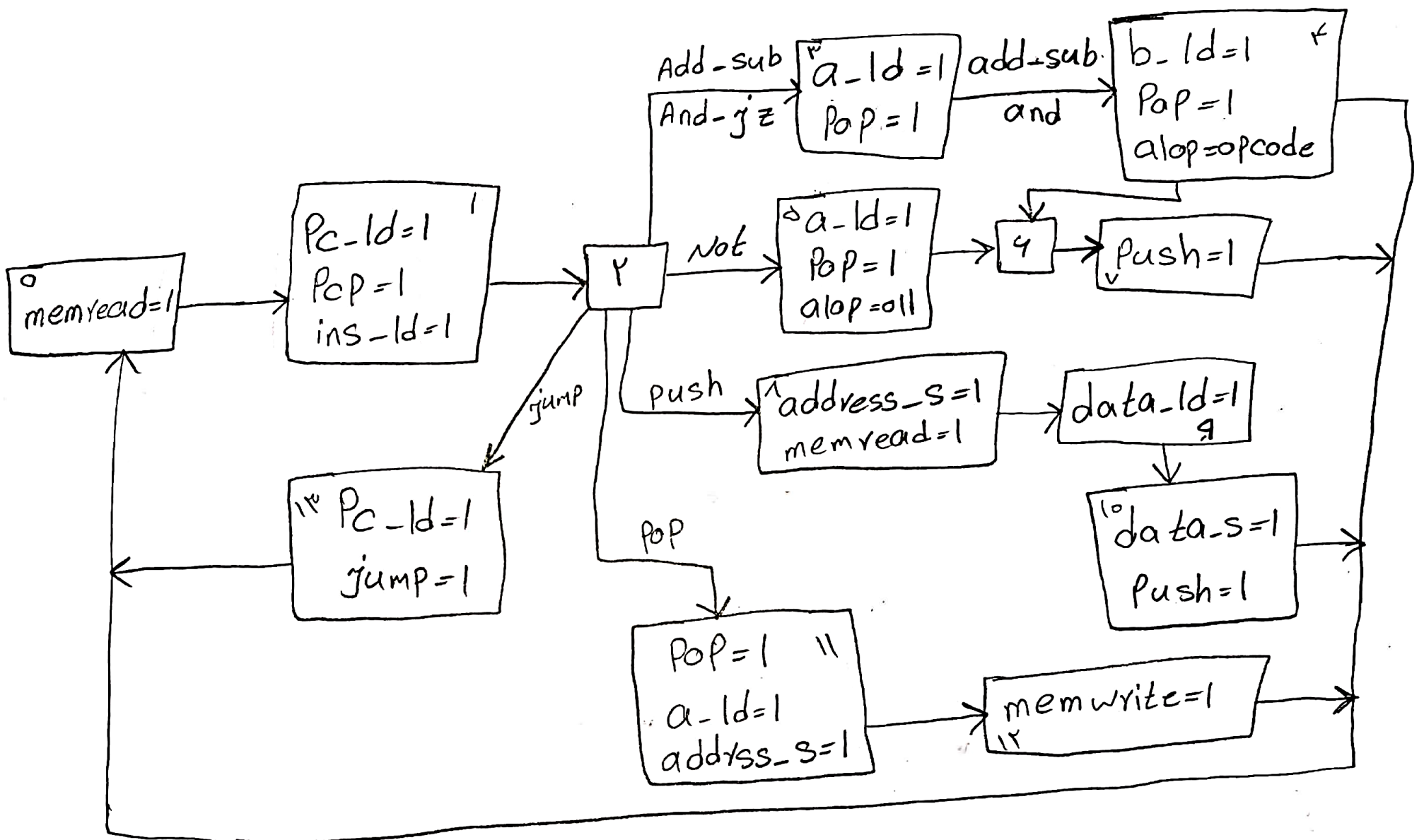
سید محمد امین اطیابی (۸۱۰۱۹۸۵۵۹)

محمد سعادتی (۸۱۰۱۹۸۴۱۰)

DATA PATH:

CONTROLLER:

Test Bench Memory Assembly:

PC	OPCODE	OPCODE BITFIELDS
0	Push A	10010000
1	Push B	10010001
2	Add	00000000
3	Puch C	10010010
4	Puch D	10010011
5	Add	00000000
6	Sub	00100000
7	Pop Y	10111111
8	-	00000000
9	-	00000000
10	-	00000000
11	-	00000000
12	--	00000000
13	-	00000000
14	-	00000000
15	-	00000000
16	A	00000110
17	B	00000100
18	C	00000001
19	D	00000010
20	-	00000000
21	-	00000000
22	-	00000000
23	-	00000000
24	-	00000000
25	-	00000000
26	-	00000000
27	-	00000000
28	-	00000000
29	-	00000000
30	-	00000000
31	Y	00000000