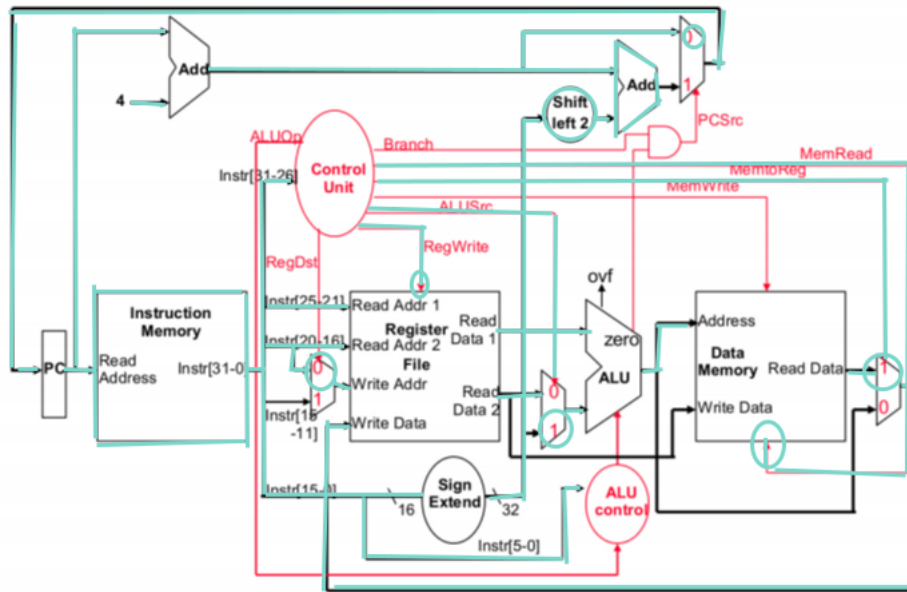


a)



Instruction	RegDst	ALUSrc	MemtoReg	Reg Write	Mem Read	Mem Write	Branch	ALUOp
<i>add</i>	1	0	0	1	0	0	1	0
<i>lw</i>	0	1	1	1	1	0	0	0

b) ALU adds when it receives signal 0010.

That happens for LW and SW instructions. We add to calculate the addresses.

R-type instruction also requires ALU to add, if we want to add two registers.