

COL 216

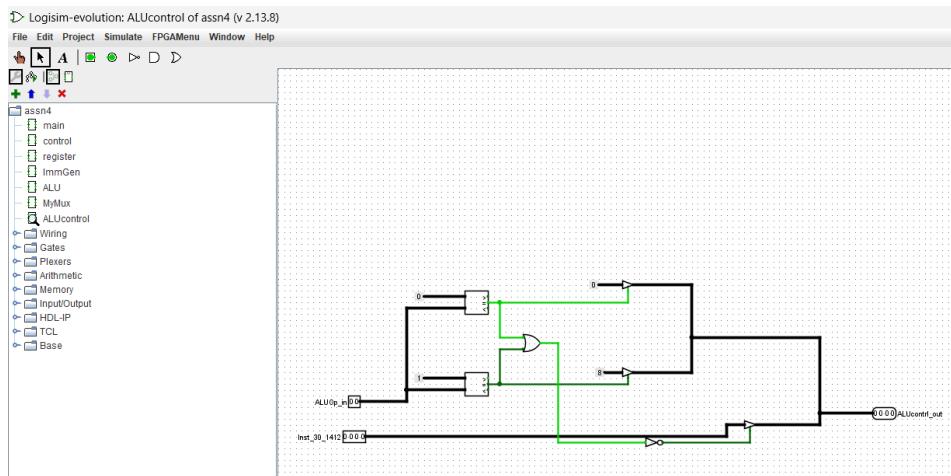
LAB-2 Part D: Single Cycle CPU

Orin Pao 2022CS11130

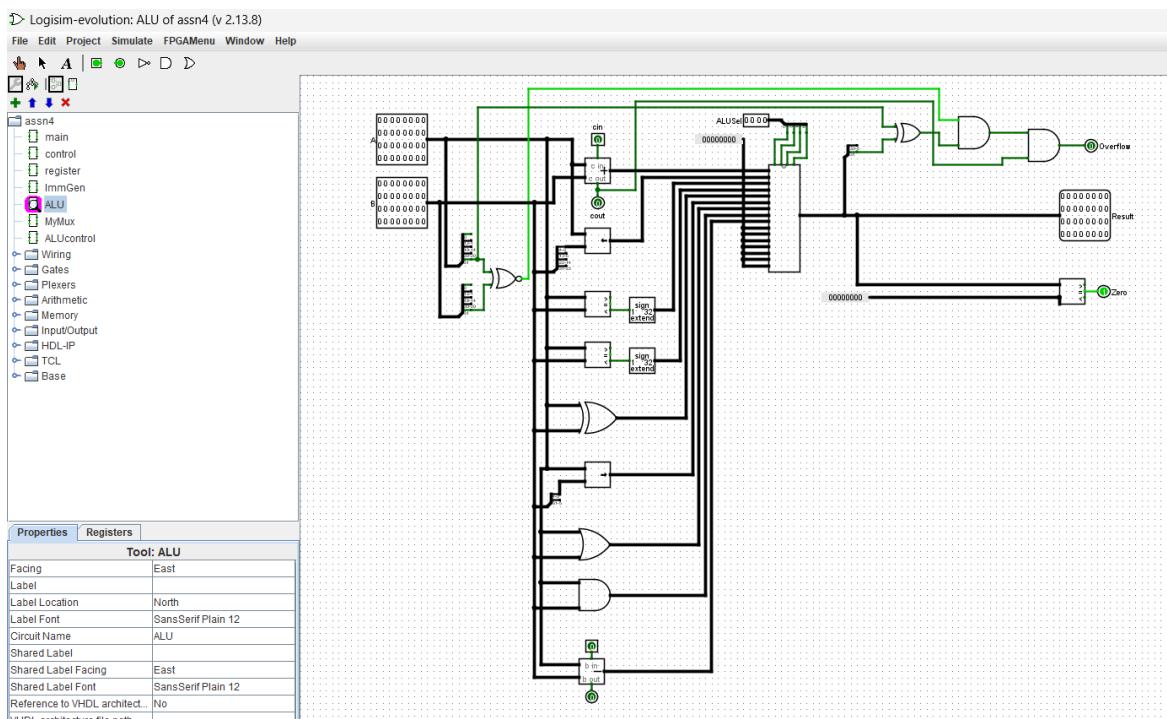
Akash Meshram 2022CS11627

Individual parts:

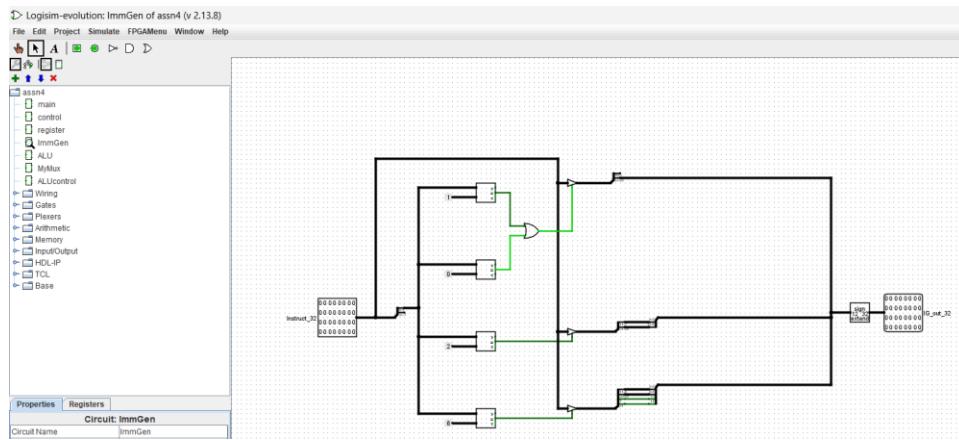
- ALUcontrol



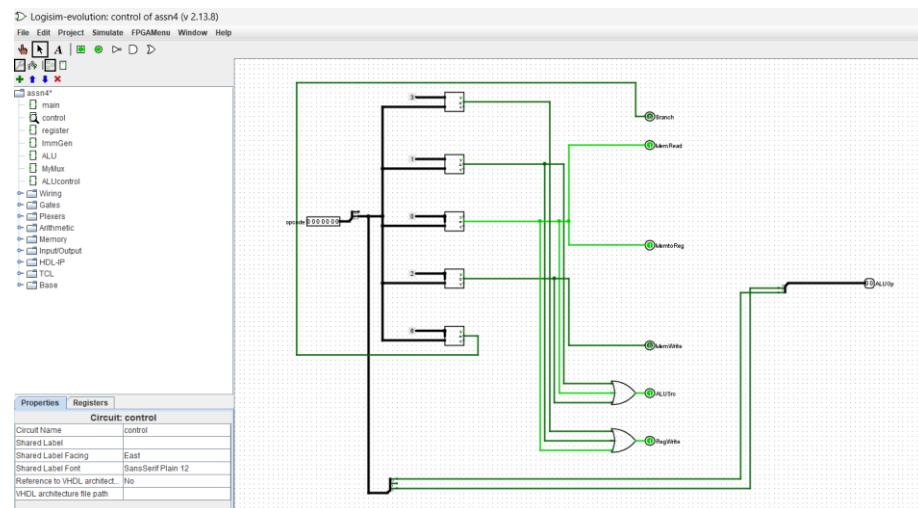
- ALU



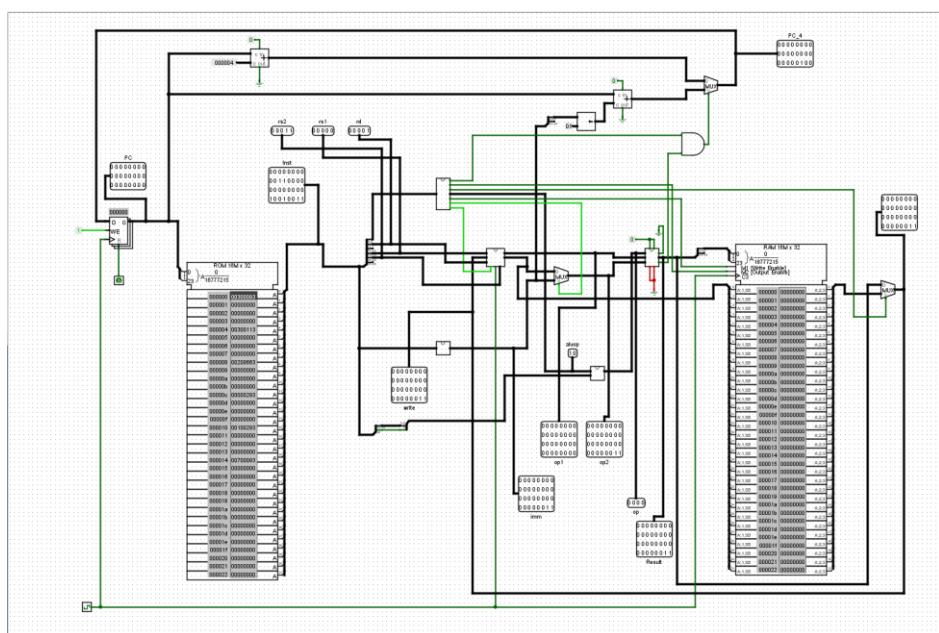
- ImmGen:



- Control:

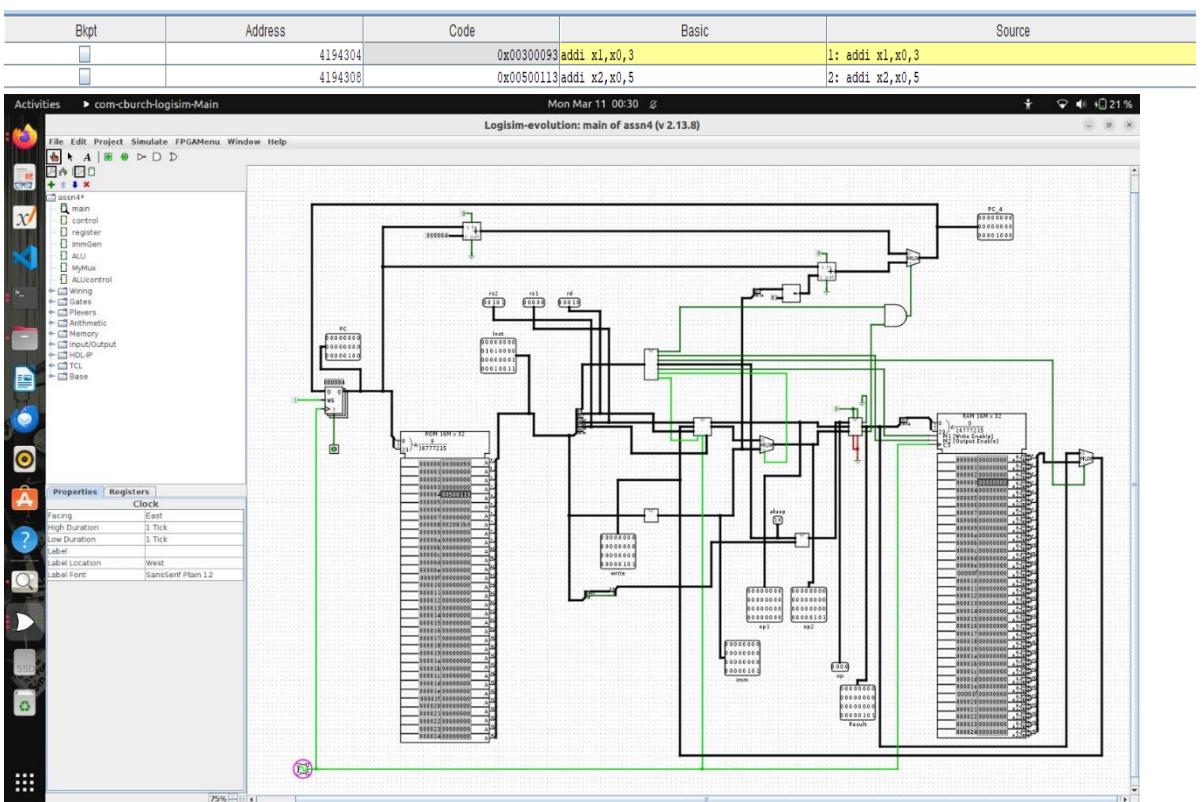
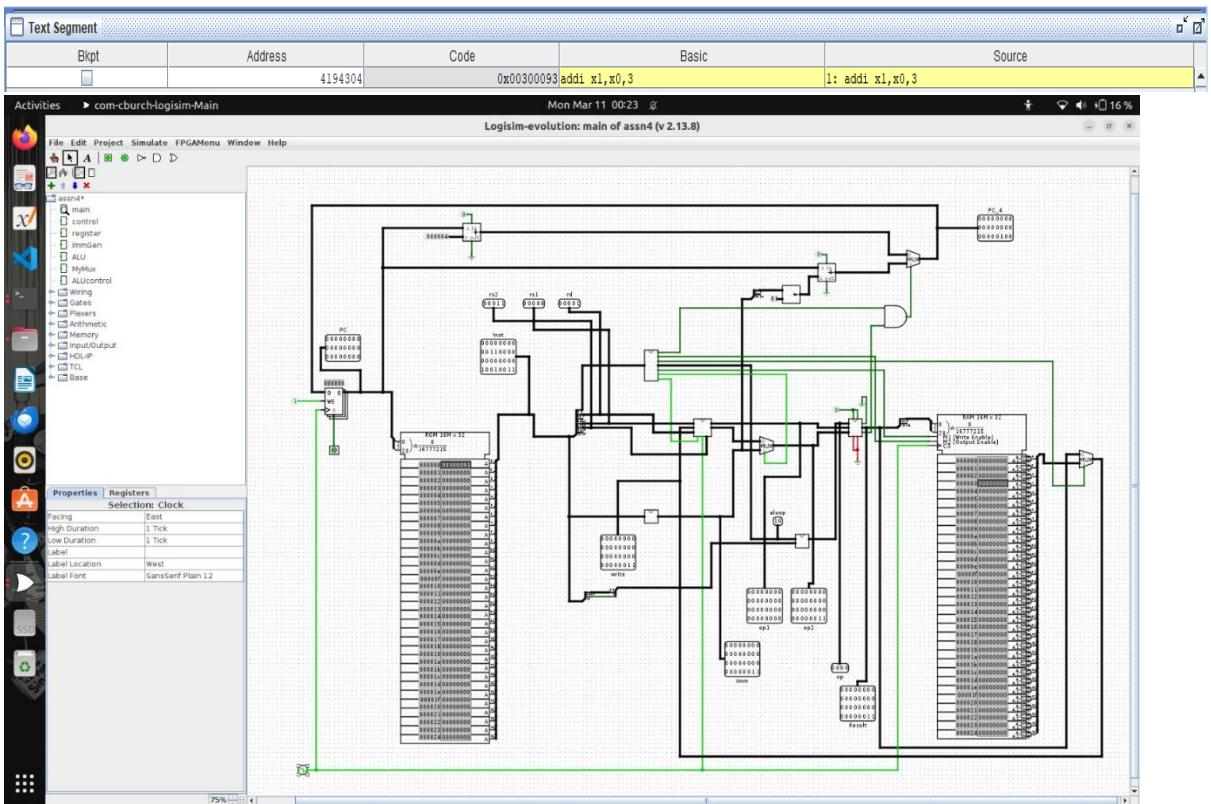


- Main

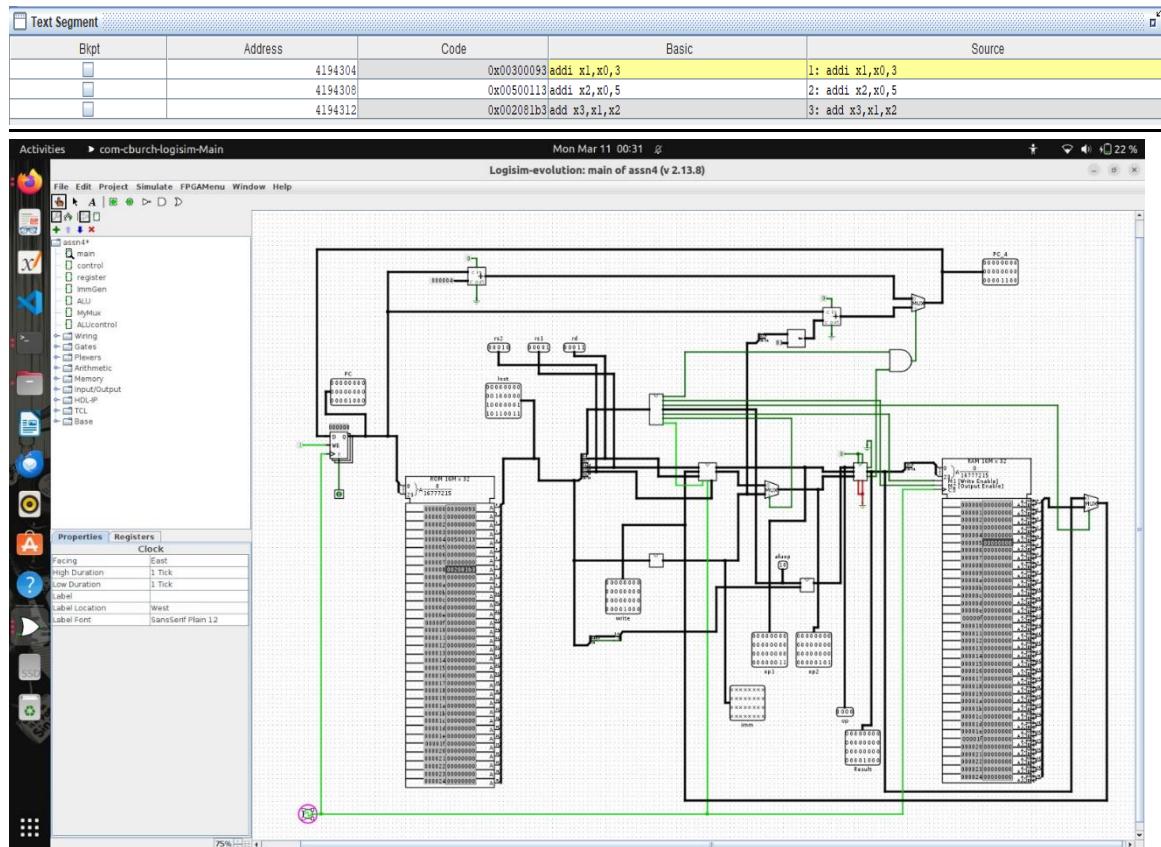


Function implementations:

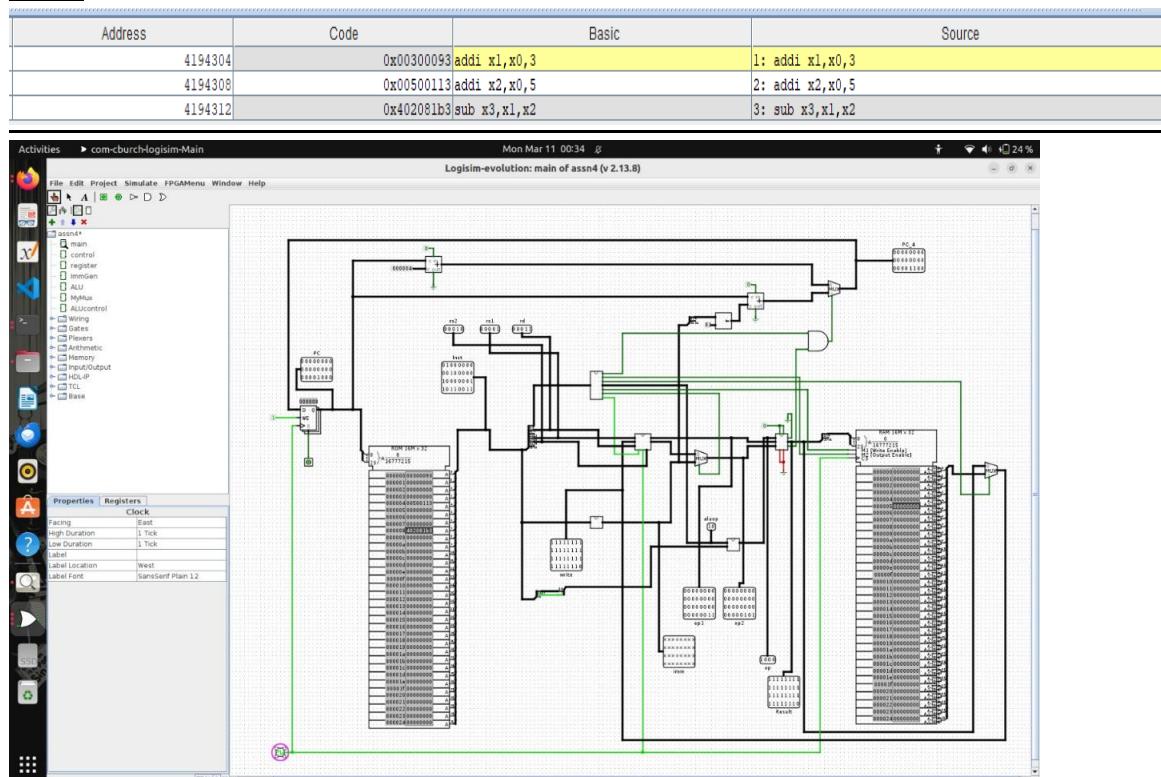
✓ addi:



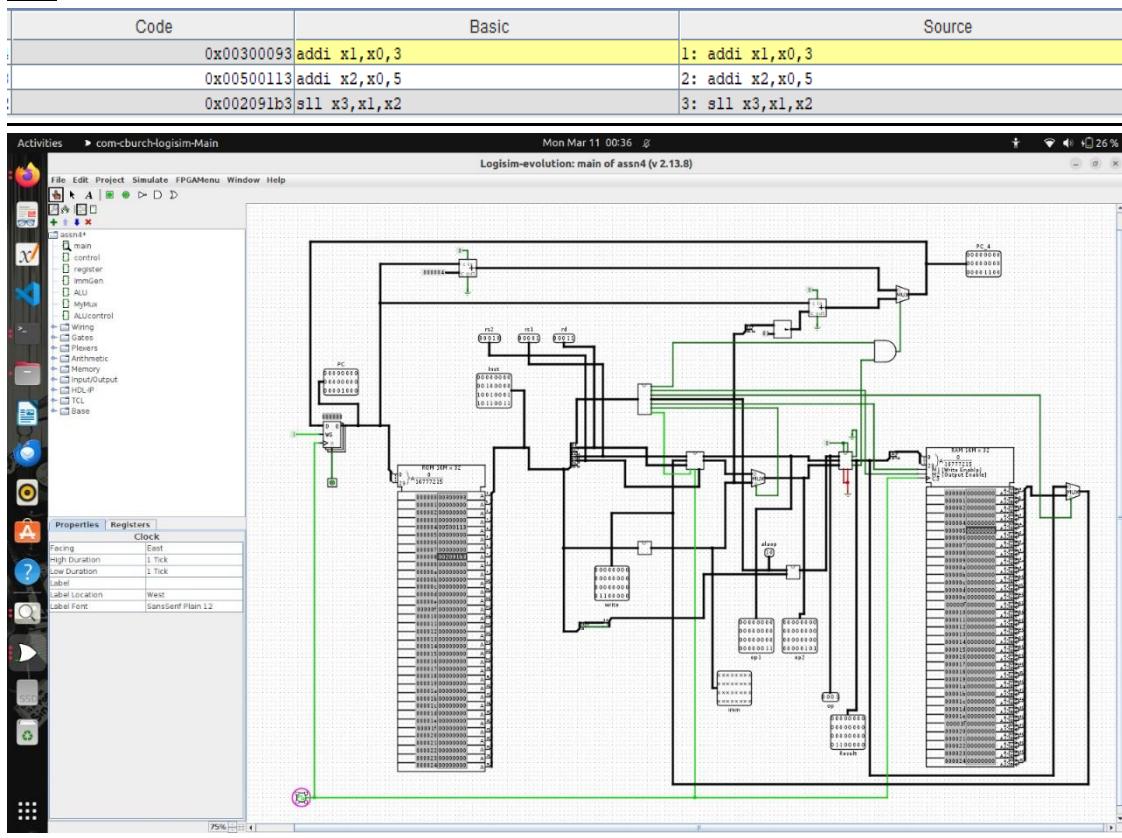
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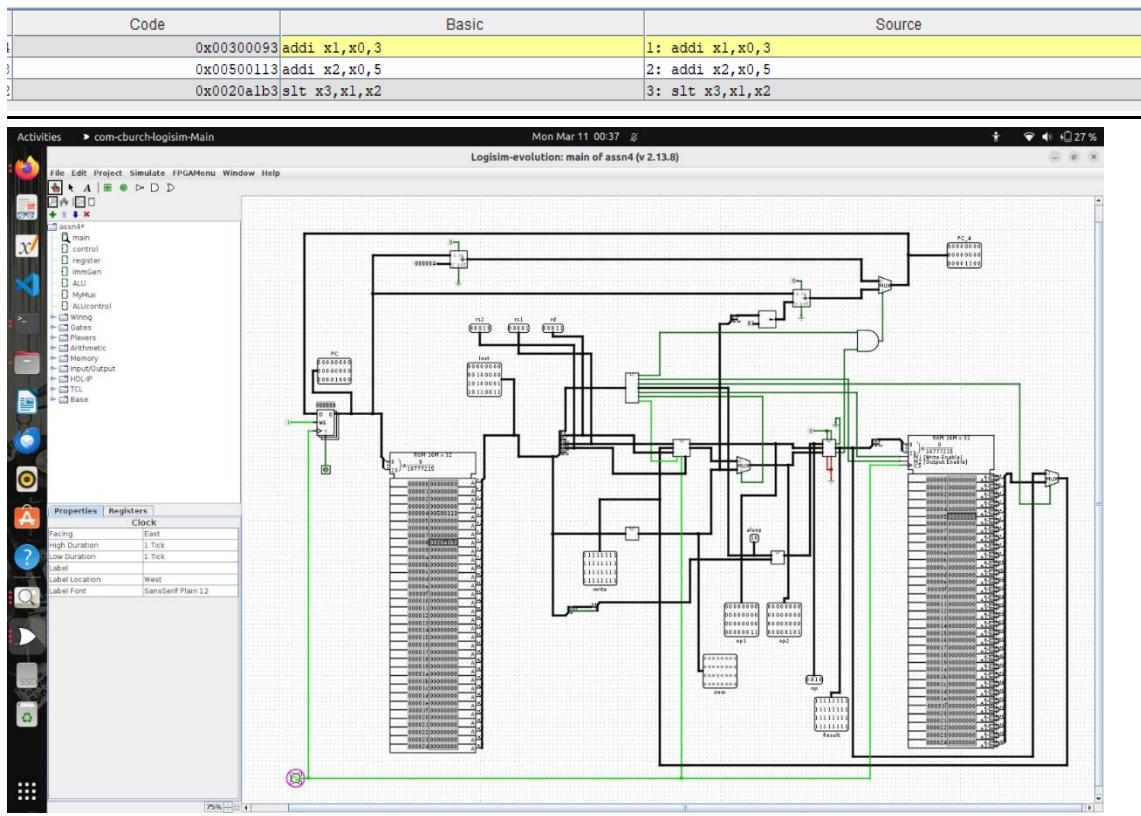
✓ sub:



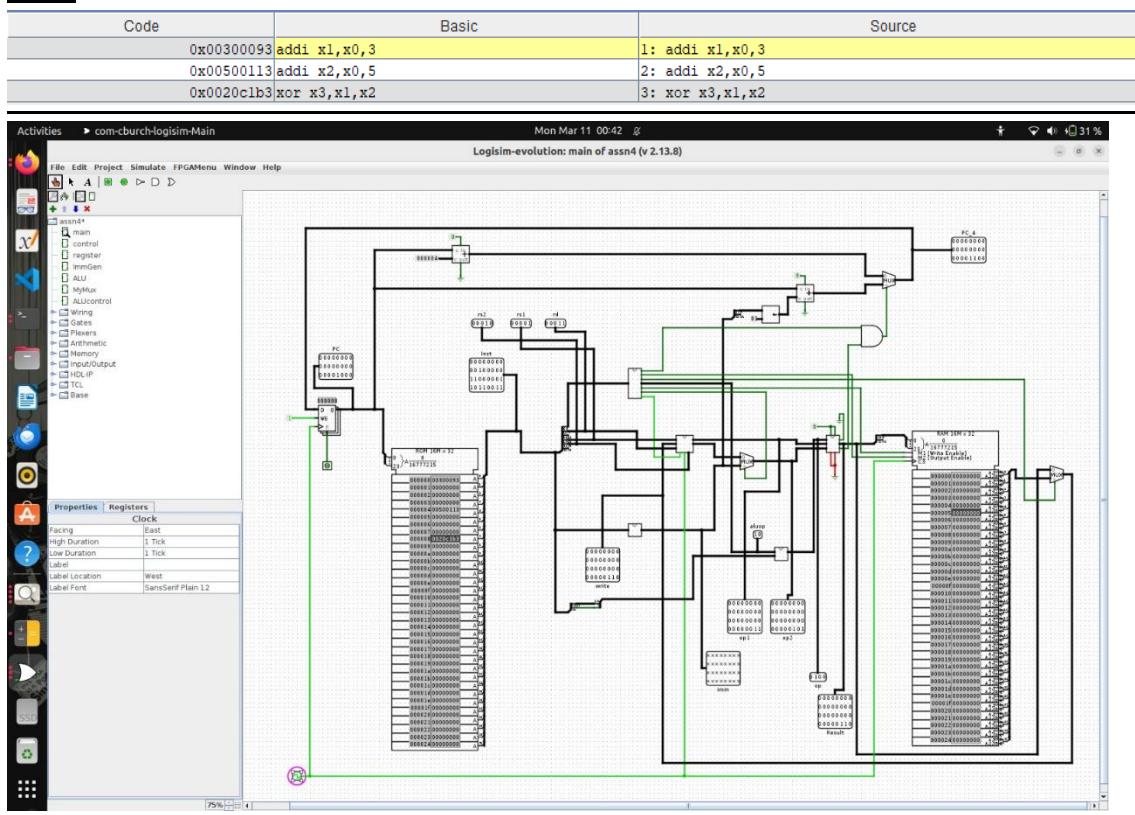
✓ sll:



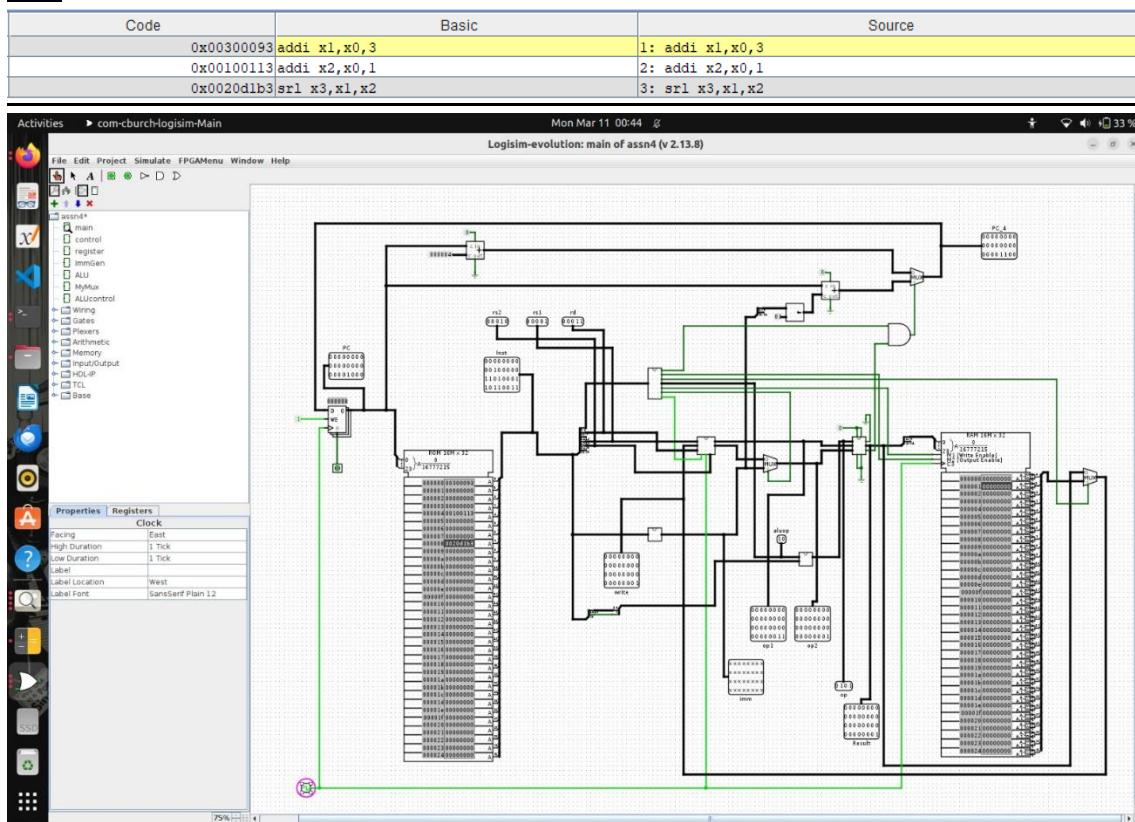
✓slt:



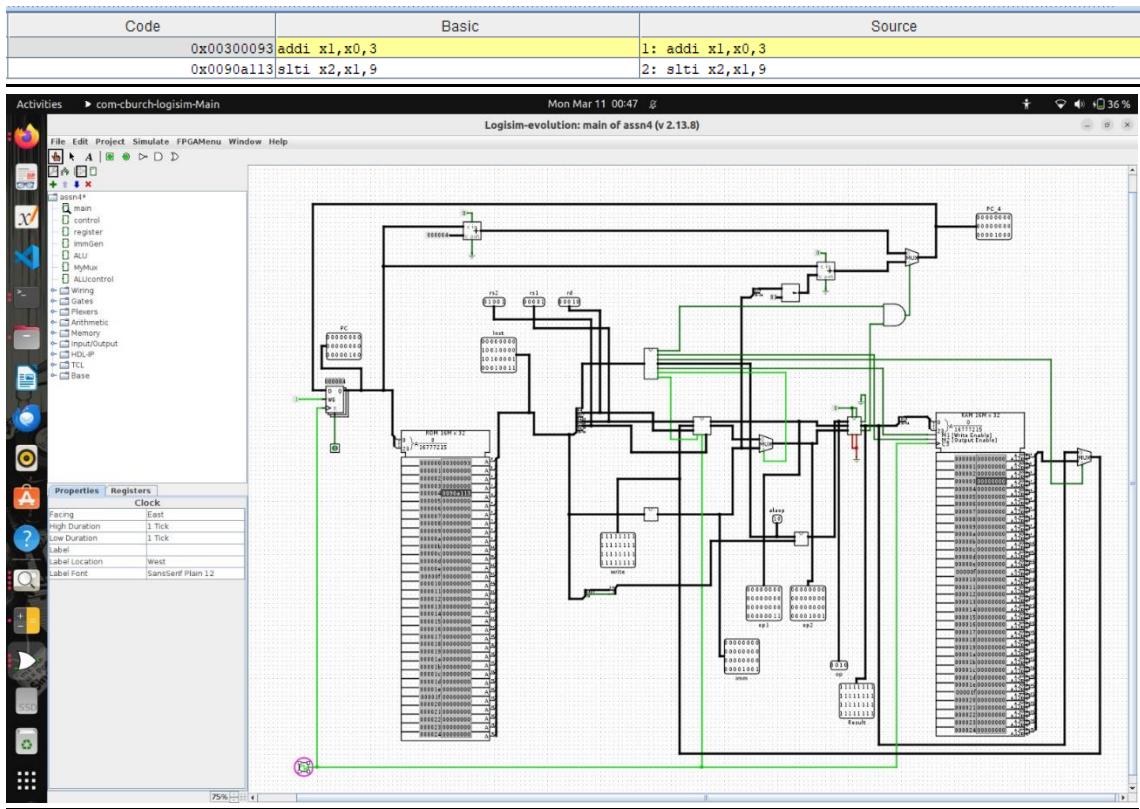
✓ xor:



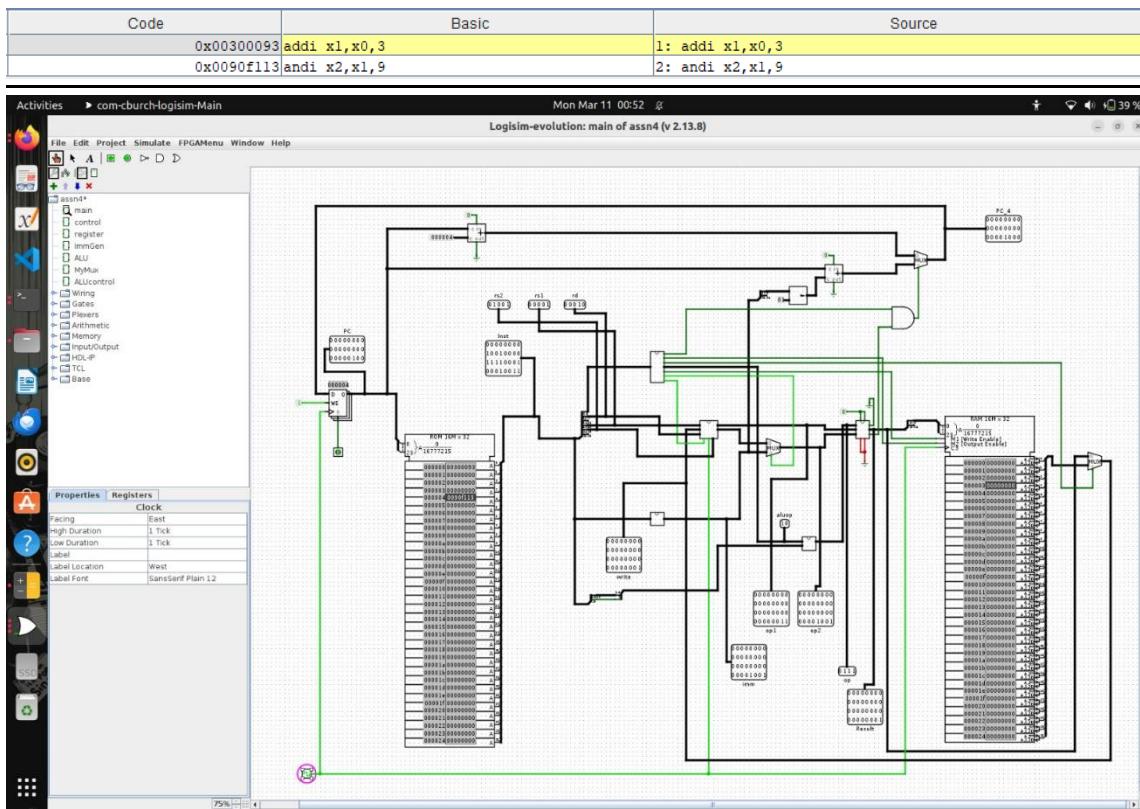
✓ srl:



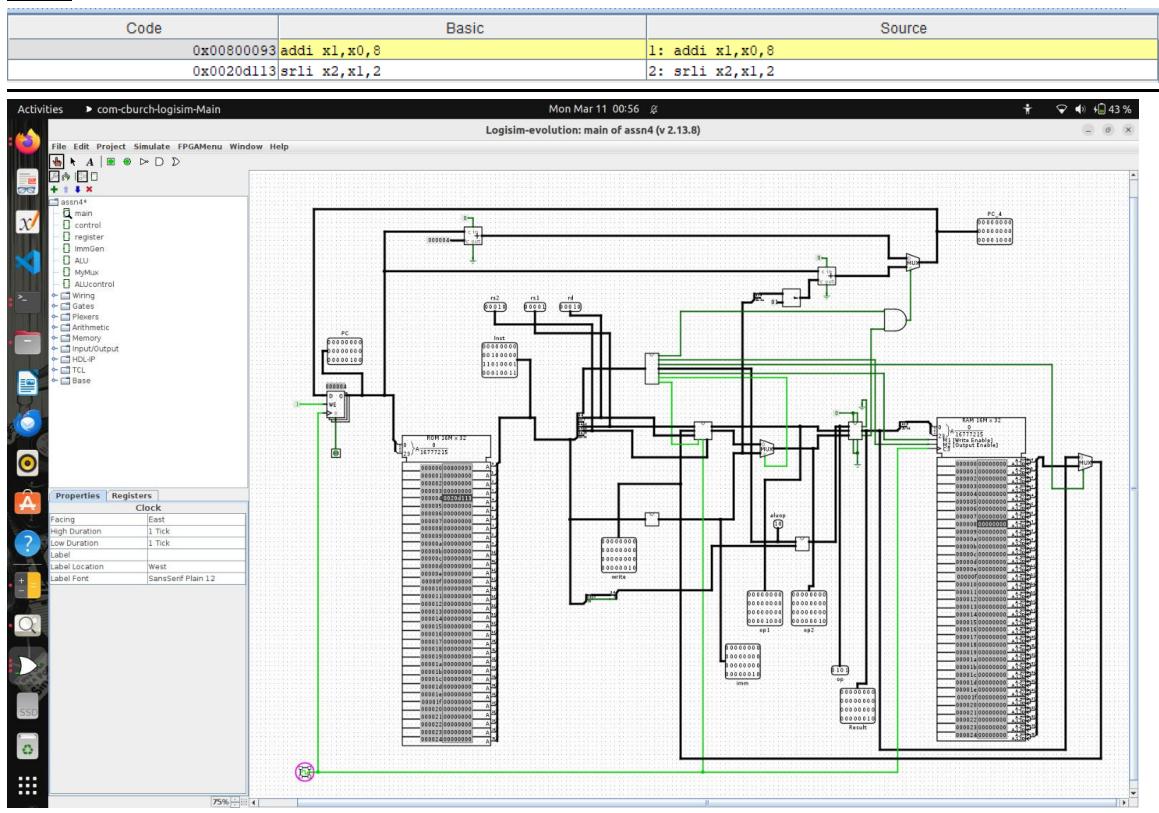
✓ slti:



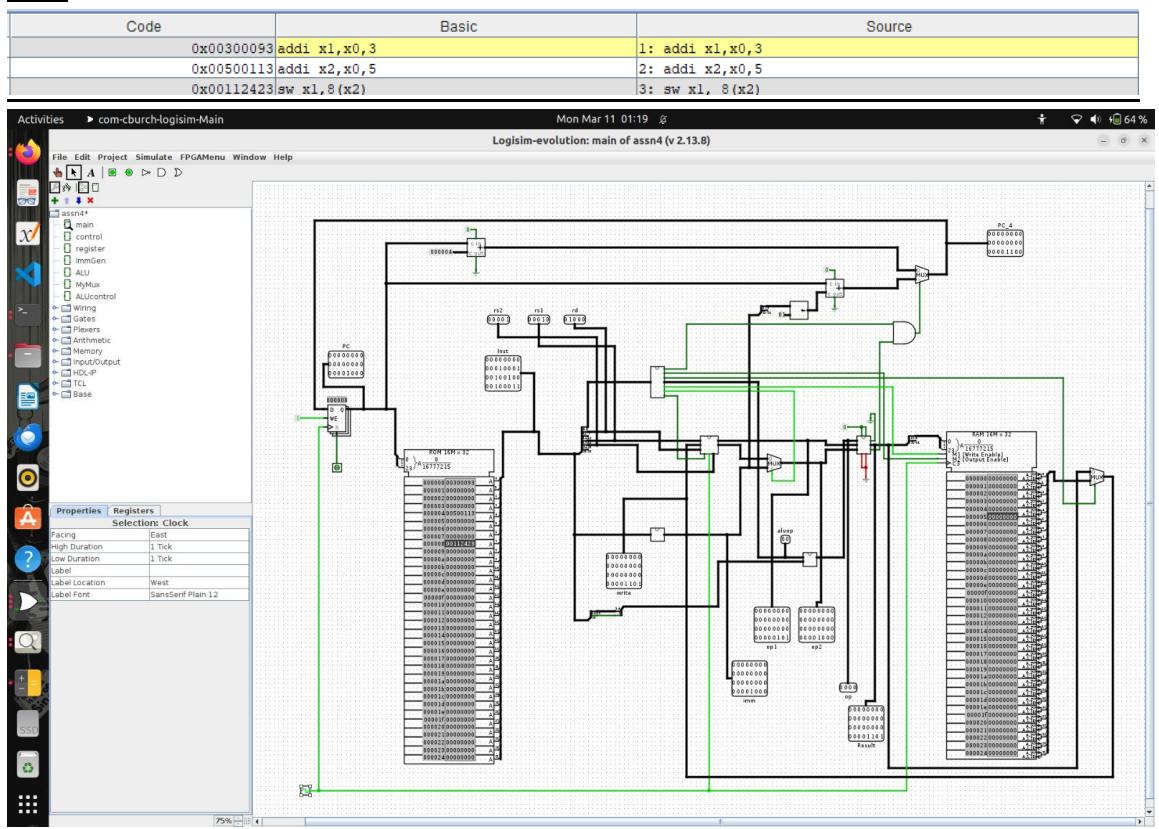
✓ andi:



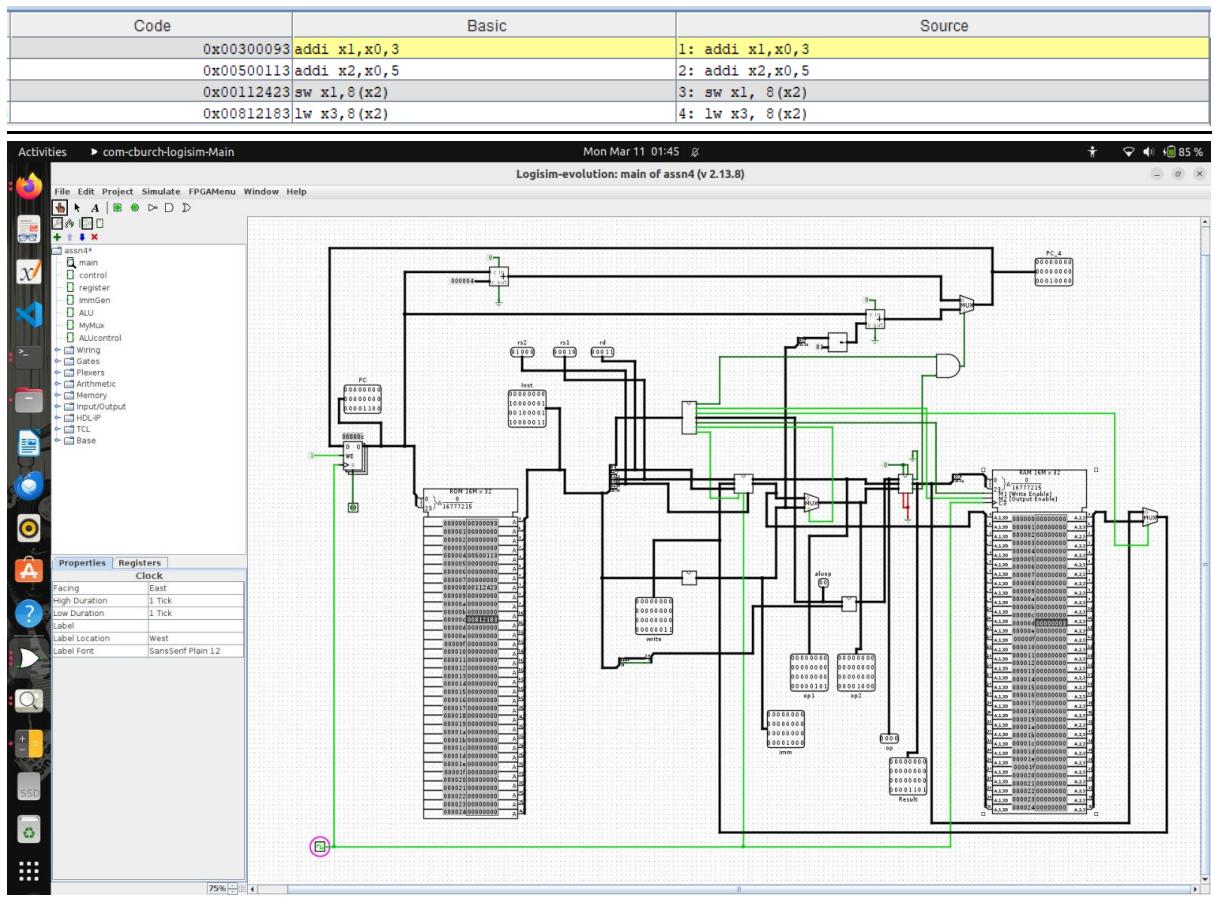
✓ srl:



✓ SW:



✓ lw:



✓ beq:

Code	Basic	Source
0x00300093 addi x1,x0,3	1: addi x1,x0,3	
0x00300113 addi x2,x0,3	2: addi x2,x0,3	
0x00208663 beq x1,x2,12	3: beq x1,x2,loop	
0x00100193 addi x3,x0,1	4: addi x3,x0,1	
0x00200193 addi x3,x0,2	5: addi x3,x0,2	
0x00508093 addi x1,x1,5	7: addi x1,x1,5	

