

Assignment #5

coen210
2022 spring

Problem

Following is the simple implementation of RISC-V instruction subset (R-type, lw, sw, beq). Modify this diagram for the implementation to be able to also execute the following two instructions:

- jal
- addi

Fill the truth table for these two instructions

	I ₆	I ₅	I ₄	I ₃	I ₂	I ₁	I ₀								
	input (opcode)							ALUSrc	memtoReg	RegWrite	MemRead	MemWrite	Branch	ALUOp ₁	ALUOp ₀
R	0	1	1	0	0	1	1	0	0	1	0	0	0	1	0
lw	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0
sw	0	1	0	0	0	1	1	1	x	0	0	1	0	0	0
beq	1	1	0	0	0	1	1	0	x	0	0	0	1	0	1
jal															
addi															

