

Andrew Judge Summary

add x10, x10, x25:

r type:

00000001100101010000010100110011

ld x9, 0(x10):

I type :

00000000000001010011010010000011

addi x22, x22, 1:

I type :

000000000000110110000101100010011

slli x11, x22, 3:

I type:

000000000001110110001010110010011

bne x8, x24, -4:

Sb Type:

1111111100001000001110011100111

Summary:

I wrote the code to first check if the type description in the riscv code was within any of the categories (r type, itype etc.), then I called a function based on the type, within which had logic for each specific operation present on the sheet. For the bne operation, I used bitwise logic (&) and bit shifting to “slice” portions of the binary that I put in the machine code.