This week, please still try to make sure that every student is able to run SPIM and knows how to debug with it. In there are additional time, please ask them to write a complete program in which two floating point arrays, arry0 and arry1 are given, each with 5 elements. The student is asked to declare another floating point array arry2, in which arry2[i] is set to be the minimum of arry0[i] and arry1[i].

My code is below:

.data

arry0: .float 0.6, 0.7, 0.9, 0.1, -0.8

arry1: .float 0.8, 1.9, 11.2, -0.19, 0.7

arry2: .space 20

.text

.globl main

main:

la $a0, arry0

la $a1, arry1

la $a2, arry2

li $a3, 5

jal floatArray

done:

addi $t0, $a2, 0

addi $t1, $0, 0

loop:

li $v0, 2

l.s $f12, 0($t0)

syscall

li $v0, 4

la $a0, msg\_newline

syscall

addi $t0, $t0, 4

addi $t1, $t1, 1

blt $t1, $a3, loop

exit:

li $v0,10

syscall

floatArray:

addi $sp, $sp, -12

swc1 $f0, 8($sp)

swc1 $f1, 4($sp)

swc1 $f2, 0($sp)

addi $t0, $a0, 0

addi $t1, $a1, 0

addi $t2, $a2, 0

addi $t9, $0, 0

floatArrayloop:

l.s $f0, 0($t0)

l.s $f1, 0($t1)

c.lt.s $f0, $f1

bc1t floatArrayskip

mov.s $f0, $f1

floatArrayskip:

s.s $f0, 0($t2)

addi $t0, $t0, 4

addi $t1, $t1, 4

addi $t2, $t2, 4

addi $t9, $t9, 1

blt $t9, $a3, floatArrayloop

lwc1 $f0, 8($sp)

lwc1 $f1, 4($sp)

lwc1 $f2, 0($sp)

addi $sp, $sp, 12

jr $ra