HW4.2. RISC-V Assembly Translation

Given the following C code:

```
int A[20]; //Assume that A is located at address 0x8000
int sum = 0;
int i = 19;
while(i >=0)
{
  sum += A[i];
  i--;
}
```

Complete the corresponding RISC-V code:

1. add x9, x0, x0
2. addi x10, x0, 19
3. li x11, 0x804C #Address of A[19]
4. Loop:

Q1.1: blt ✓ 100% x10, x0, Done

6. lw x12, 0(x11)

Q1.2: addi x10, x10, -1 ✓ 100%

Q1.3: addi x11, x11, -4 ✓ 100%

9. add x9, x9, x12
10. j Loop
11. Done:

Try a new variant

Correct answer

1. add x9, x0, x0
2. addi x10, x0, 19
3. li x11, 0x804C #Address of A[19]
4. Loop:

Q1.1: `blt` x10, x0, Done

6. lw x12, 0(x11)

Q1.2: addi x10, x10, `-1`

Q1.3: addi x11, x11, `-4`

9. add x9, x9, x12
10. j Loop
11. Done:

Submitted answer

correct: 100%

Submitted at 2022-09-20 09:13:39 (PDT)

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1. add x9, x0, x0
2. addi x10, x0, 19
3. li x11, 0x804C #Address of A[19]
4. Loop:

Homework 4

Assessment overview

Total points: 20/100

Score: 20%

Question

Value: 12

History: 12

Awarded points: 12/12

Report an error in this question

Previous question

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Attached files

No attached files

Attach a file

Attach text

Q1.1: `blt` ✓100% x10, x0, Done

6. lw x12, 0(x11)

Q1.2: addi x10, x10, `-1` ✓100%

Q1.3: addi x11, x11, `-4` ✓100%

9. add x9, x9, x12
10. j Loop
11. Done: