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CSCD340

lab1prob2

Guesses:

1: a = 0022FF00, b = 0022FEFC, c = 0022FEF8, i = 0022FEF4

2: b = 02D0F98, c = FFFFFFFE

3: a[0] = 200, a[1] = 101, a[2] = 102, a[3] = 103

4: a[0] = 200, a[1] = 400, a[2] = 402, a[3] = 404

5: a[0] = 200, a[1] = 500, a[2] = 402, a[3] = 404

6: a[0] = 200, a[1] = junk values, a[2] = 402, a[3] = 404

7: b = 0022FF04, c = 0022FF01

Output from program run:

1: a = 0x7ffff10ec550, b = 0x7ffff10ec548, c = 0x7ffff10ec540, i = 0x7ffff10ec53c

Although memory locations are different I was correct in how many bytes that that should be allocated between a,b,c, and i. However, since the above guesses are assuming 32-bit and the program actually ran on 64-bit, the amount of bytes allocated are different. For example, b uses eight bytes instead of four.

2: b = 0x19f1010, c = 0x7ffff10ec676

Although memory locations are different the guess is correct.

3: a[0] = 200, a[1] = 101, a[2] = 102, a[3] = 103

Verified that the guess was correct .

4: a[0] = 200, a[1] = 400, a[2] = 402, a[3] = 404

Verified that the guess was correct .

5: a[0] = 200, a[1] = 500, a[2] = 402, a[3] = 404

Verified that the guess was correct .

6: a[0] = 200, a[1] = 205044, a[2] = 256, a[3] = 404

My guess was not correct here. I thought that the operation would cause junk values or an error to be generated in the memory location of a[1]. However, it seems that it caused the values to bleed over into the next memory location where a[2] is. I am not entirely sure how the values 205044 and 256 are generated though.

7: b = 0x7ffff10ec554, c = 0x7ffff10ec551

Although the memory locations are different I was correct in how many bytes were allocated between b and c.