CS 376 – Operating Systems HW #1

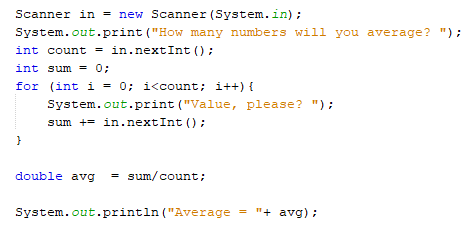
For this assignment, you may use whatever resource you find helpful, however, be sure that the work is your own.

Edit this document with your answers and submit it in pdf form to Canvas by the due date.

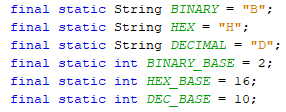
1. Get to know your own machine

Using your computer’s interface, find out the following about the processor. Support your answers with screen grabs and/or urls to the information:

1. Model name, manufacturer
2. Processor speed
3. How many cores it has
4. How many threads it has
5. Find another type of device – it can be your phone, your tablet, your thermostat, your microwave. Do the same that you did for #1…. find out the following about the processor. Support your answers with screen grabs and/or urls to the information:
6. Model name, manufacturer
7. Processor speed
8. How many cores it has
9. How many threads it has
10. Compare these two devices. Could these processors be interchanged? Meaning could the processor in #1 be used in the device of #2 and vice versa? Why or why not?
11. Recall that interrupts occur when the program does I/O operations. These could be to save something out to a file on the hard drive, to print something to a screen, to get keyboard input. Describe the process by which the processor would, say, receive input from the keyboard. (Section 1.2 may help)
12. Consider the following code. Consulting figure 1.5, what event might occur in this code? (Non-OS question – Does this code properly compute an average?)



1. Examine the following Java code. Would this code cause any instructions to be executed in kernel mode? Why or why not? (Hint: Section 1.4.2 and/or thinking in MIPS Assembly may help you out here)



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