Fall ’13 CIS 314 Assignment 4 – 125/100 points – Due Wednesday, 11-27, 11:59 PM

This assignment will involve solving problems and writing C code related to optimizing program performance. For ease of submission, please submit a .zip file containing a single solution document for non-coding exercises (.txt, .doc, or .pdf) and individual source files for coding exercises (see naming conventions below). Your code and answers need to be documented to the point that the graders can understand your thought process. Problems will be graded based on work shown, not your final answer; full credit will not be awarded if no work is shown!

1. [40] B&O’H 5.15. Write your answers in your solutions document.

2. [20] B&O’H 5.16. Write your modified C code and answers in your solutions document (your C code does not need to compile or run).

3. [20] B&O’H 5.17. Write your modified C code and answers in your solutions document (your C code does not need to compile or run).


5. [+25] (25 points extra credit). Write a Y86 program to recursively calculate numbers in the Fibonacci sequence. Your program should have a main section that calls RecFib(2) and RecFib(10) (because RecFib(15) appears to be too much work for yis). The program should end with the results of these calls stored in %ebx and %eax, respectively. Name your source file recfib.ys. Hint: you will need to allocate additional stack space for this to work; an initial address of 0x500 seems to do the trick.

Upload .zip file to Blackboard (see Course Documents section for submission link).