This assignment will involve solving problems and writing code related to x86 assembly code. 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. [25] Write a C program which:
   - Prompts the user for an integer array length.
   - Prompts the user to enter an integer for each array element.
   - Sorts the array in ascending order using a sorting method of your choice.
   - Prints the sorted contents of the array.

   Name your source file sort.c.


6. [15] Write x86 code equivalent to the following C code:

   ```c
   int f(int x) {
     return 4*x;
   }
   int g(int a, int b) {
     return f(a) - f(b);
   }
   ```
Follow the register usage conventions outlined in B&O’H section 3.7.3. Write your code in your solutions document.

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