Computer Architecture and Organization

Project 4

Due date: Sunday, October 22 at 11:59pm

Write a C/C++ program that does the following:

- declare an array of integers (size is your choice)--your program should work with any array size
- call an assembly function to compute the average of all elements in the array (pass the array and the size of the array)
- call an assembly function to compute the largest (max) of all elements in the array (pass the array and the size of the array)
- call an assembly function to compute the smallest (min) of all elements in the array (pass the array and the size of the array)
- display the average, min, and max

There should be three assembly files for the three functions (average-40 points, largest-30points, smallest-30 points)

Modify such that the array is of floating point values and average, min, and max are computed on float values. Use x87 floating-point instructions

Test and turn in all your 4 files: one c/cpp and three .asm.