

**Assembly Project 3 for CMPE 310**

**Assigned: Friday, September 25**

**Due: Thursday, October 8**

**Project Description:**

**Write an 80x86 assembly program that performs the following functions:**

- **Reads a set of integers from a file into a memory array. The data file name is to be read from the command line.** You are welcome to use the code examples and macros to do this project.
- **Format of the data file: Assume the file gives the number of data points on the first line. Every line following the first line contains exactly one value. The maximum number of integers in the file will be 1000.**
- **Add all the integers that you have read and print out the sum on the screen as well as all the integers sorted in an descending order.**

You must use the submit program to submit your code. The class name is **CMPE\_310** and the project name is **proj3**. You are also required to turn in a **single-file pdf report**. Make sure your code is **modular** i.e. you have **subroutines** for opening the file, reading **integers and populating your array, doing your calculations, printing your output etc.** Submit the project (project3.asm) file and (common\_code.asm). Any code that you use from our examples should be in (common\_code.asm) and this file should be included in your main project file. If you use the include file mine.inc, include that as a separate file.

You can construct your own data files for this in the format described above. **We will test your code on our own examples**

**NOTE: You may use the C library functions for this project. The relevant functions are fopen, fscanf and printf. Examples are posted on the webpage.**

**THE LABS ARE INDIVIDUAL EFFORTS: INSTANCES OF CHEATING WILL  
RESULT IN YOU FAILING THE COURSE.**