CSE-310 : Data Structures and Algorithms

Homework 3 - Due Tuesday March 1st by 1:30pm

This is an individual programming assignment. The goal is to implement a working version of merge-sort which can sort an array of positive numbers which will be read from an input file and written to an output file in non-decreasing order in O(n lg n) time. Your program should be compilable on the general.asu.edu server and must include a README file describing how to compile and test your program.

- You can assume there will be enough space available to read the entire input file into memory.
- Your program will be tested on the general.asu.edu server so make sure that it compiles and executes correctly on that server.
- Your program must accept the name of the input file as an input parameter.
- The output file should be named "output.txt".
- You *must* include a documentation file named README that includes your name and student ID and explains how to compile and test your program. You can use a "makefile" to simplify the compilation process.

Input file format
The Input file will only contain integer values. The first line will be a non-negative number N which is the number of elements inside the array. The "N" subsequent lines will each contain one positive 32-bit integer.

Output file format
Same as the Input file format.

Submission
Create a zip file named "lastname_firstname_hw3.zip" that consists of your program files and the README file and upload it to the hw3 section in the assignments page before the deadline. Turn in a hard-copy of your README file in class.