**CS 2050 - Programming Project # 6**

Assign Date: November 19, 2019.

Due Date: December 5, 2019 **AT THE START OF CLA**SS. Any project submitted after the start of class **for any reason** will lose 7 points. This project cannot be resubmitted.

Auxiliary Documents: 2050 Project Schedule Template.docx

Write pseudocode and then a Java program named FirstnameLastname\_06.java that will perform the following tasks:

1. Create two arrays each of size 100.
2. Read in a set of numbers from input file 2050 Project 06\_Input.txt, and store the numbers in the arrays created in the step 1. This input file can be generated by running the program RandomIntegerGenerator.java, included in the Project 6 zip file.
3. Sort the numbers using the Shell Sort algorithm that you implement.
4. Write the sorted numbers into the output file, FirstnameLastname\_06\_Output1.txt. See step 8.
5. Use the same set of numbers from your input file and store the numbers in the array created in the step 1. Note that if you save the input array, you don’t have to read the numbers again..
6. Sort the numbers using Quick Sort algorithm that you implement.
7. Write the sorted numbers into the output file FirstnameLastname\_\_06\_Output2.txt. See step 8.
8. Each of the two output files should have 10 numbers per line with a space between each number.

**What to Submit**

Your schedule, your main class, FirstnameLastname\_06, on top of your pseudocode, on top of 2050 Project 06\_Input.txt, on top of FirstnameLastname\_\_06\_Output1.txt, on top of FirstnameLastname\_06\_Output2.txt, all stapled together. Write your name and Project 6 in the upper right-hand corner.

Note: all submitted code should include line numbers.