CMPS 4143

Programming Assignment-1 (Due September 15ᵗʰ 11:59 PM)

[*To get the full credit of your programming assignment, find the problem solving steps and documentation guidelines listed in 'Programming Assignments' section in D2L. You are supposed to submit a zip file (don't use winrar to zip) that should contain a documentation file like a docx file and your codes with proper programming extensions like .java or .py. Make sure all of your code is compliable or no runtime error.TA will not grade you if your code is not runnable and get a zero*]

1. Given an array with 20 elements, find the largest and smallest number. – **20 points**

2. Given an array X = {10, 100, 40, 28, 98, 37, 12, 63}. – **30 points**
   a. Copy the array in a different variable Y.
   b. Sort the array in descending order and print the array.
   c. Calculate the AVG value of the elements and insert it to array Y on it's correct position, print it.
   d. Perform comparison between Y and X. If not same, perform delete operation to make it same

3. You are given a string S = "Before trying to do any of the steps below, you should read the article through at least once for basic understanding. Then go back and review, following these steps. He ran his machine up to the stone porch and ascending the steps rang the door bell. They directed their steps toward the sea, which was lit up by the rising moon. She breathed a sigh of relief, and her light steps fell gradually into the measure of his. This was fully four feet under water and the lower story of the place was two steps lower down."

   Find 5 high frequency words using several array operations. – **20 Points**

4. You are given a string S = "this is my first programming assignment". Print the words in a reverse order like "assignment programming first my is this" using array. –**30 points**