## **CSC 461 Programming Languages**

## **FALL 2024**

## **Dr. Stephen Krebsbach**

**Ass #1 10 points Due: Monday Sept. 16 th 11:59 PM (Talk to me if that is a problem 😊)**

Create a complete pseudo-code program to do the following using the PseudoCode language developed in class using **Absolute Addressing.**

There is 1 deliverable:

1. You should dropbox me the source code in a file called **A1.dat** You should include the input cards shown below in the program as a test.

## **THE PROGRAM:**

First you will read in a value **N** which holds the number of values to be read in and sort them in ascending order. (so if **N** is 20 then there will be 20 more cards to read in.)

Read in the values into an array.

## **Bubble-Sort the array**

{you must **use the Bubble-sort algorithm.** Below I have modified the simple Bubble sort to use bottom tested loops to help you a little as that is the type of loop our language supports with Incr & test.

int i;

int j;

int t;

i = 0;

do

{

j=0;

do

{

if (A[j] > A[j+1])

{

t= A[j];

A[j] = A[j+1];

A[j+1] = t;

}

j++;

}while( j < N-1);

i++;

}while(i < N-1);

After sorting the values you should print them out in order.

Finally, you should print out the **values between 50 and 150** (inclusive) in **Ascending** order (small to big)

Below are the input cards to use for your test (include in your file) AND then what your output should look like.

**The program you turn in should use these input cards!!!!!!!!**

**Note :** you can assume that N will be in the range 5 to 300 if that helps. ☺

**INPUT CARDS**

10

94

150

113

37

63

160

128

235

117

1

**OUTPUT FROM EXECUTION first thing to Print - The numbers sorted 😊**

1

:

235

**OUTPUT FROM EXECUTION Second thing to Print**

63

94

113

117

128

150