CS 2073
Computer Programming with Engineering Applications
Assignment 6
Due Wednesday November 28

1. (100 pts) Write a program that sorts the elements of an array pairwise. Start from the left of the array, take 2 elements at a time and swap the elements if larger element is not on the right. Continue in this fashion until you reach the end of the array. Declare an integer array of size 10 and place random numbers in the range $[0-9]$. Print the original array, pairwise sort the elements of the array and print the final array after swap. Consider the following example.

1	7	4	0	9	4	8	8	2	4
0	1	2	3	4	5	6	7	8	9

After pairwise sort you get the following array

1	7	0	4	4	9	8	8	2	4
0	1	2	3	4	5	6	7	8	9

In the array first two numbers 1 and 7 are in order, 4 and 0 are out of order and swapped, 9 and 4 are out of order and swapped, 8 and 8 in order and remain, 2 and 4 are in order and remain.

Sample execution of the program is given below

```
Original array
   1   7   4   0   9   4   8   8   2   4
After pairwise swap
   1   7   0   4   4   9   8   8   2   4
```

Submit your program electronically using the blackboard system

The program you submit should be your own work. Cheating will be reported to office of academic integrity. Both the copier and copiee will be held responsible.