

# Assignment:

- By Dr. Virus

**Q.** Write a program which takes an integer  $n$  (where  $n$  is even) followed by  $n$  integers and do the following task:

- **Task1:** Print the unique elements in the list of integers given to you in sorted order.
- **Task2:** Group the adjacent integers in two starting from first element like  $a_1, a_2, a_3, a_4, \dots$  as  $(a_1, a_2), (a_3, a_4), \dots$  and sort them in decreasing order by  $2^{\text{nd}}$  no in group i.e., in order of  $a_2, a_4, a_6, \dots$  and print the first element of group like if in  $(a_1, a_2), (a_3, a_4), (a_5, a_6), a_4 < a_6 < a_2$  then answer will be  $a_1 \ a_5 \ a_3$ . Note if  $2^{\text{nd}}$  elements are equal sort them on the basis of increasing order first element.
- **Task3:** There is currently an empty queue. You will be given a vector of integers. Group the adjacent integers in two starting from first element like  $a_1, a_2, a_3, a_4, \dots$  as  $(a_1, a_2), (a_3, a_4),$  and so on. If the  $1^{\text{st}}$  element of the pair is odd, you have to add the second element to the end of the queue. Else, if the  $1^{\text{st}}$  element of the pair is even, you have to add the second element in the pair to the end of the queue and then remove the frontmost element from the queue. Print the queue from front to back.

For  $n=10$  and 10 integers  $\{5,7,6,5,2,1,4,0,1,3\}$ , complete the tasks, store answers in binary files and submit them.

(NOTE: Alexa's Deadline is Today. 🤖 )