Q10. Max Heap Sort

For this problem, you need to implement a heap sort for integers.

**There is no template in this lab, you must do it all by yourself.**

Note that:

This question can be solved by array or linked list. Normally, array is more preferred. However, you can also use linked list to practice this lab.

# Input Format

The first line is the number of integers.

The following lines are the value of integers.

See sample input for details.

Please implement the file I/O part.

Read the file to get input.

The file name should be “input.txt”.

**DO NOT use any sort functions from the standard library or other libraries.**

**You can only use max heap sort to implement this question.**

**If you use other ways to sort, your score will be 0.**

# Output Format

Show the sorted integer in increasing order.

See more detail from Sample output.

# Sample Input (input.txt)

10

21 6 -5 9 4 26 -50 -70 64 99

# Sample Output



# Hint

<https://www.tutorialspoint.com/data_structures_algorithms/heap_data_structure.htm>