

Algoma University
School of Computer Science and Technology
COSC 2007 Data Structures II (Lab)

Assignment 3

Date of Lab: Jan 29, 2024

1. Write a Java program to do the following

Sort the given singly linked list in ascending order. You can use any sorting strategy of your choice.

Input Format:

There is only one argument named head, denoting the head of the given singly linked list.

Output Format:

After sorting, return the head of the same linked list that is provided in the input.

Constraints:

- $0 \leq \text{length of the list} \leq 10^5$
- Nodes will contain integer values.
- You have to do it in-place (you must not create any new node)

Sample Test Case 1:

Sample Input 1:

1 -> 7 -> 4 -> 2 -> NULL

Sample Output 1:

1 -> 2 -> 4 -> 7 -> NULL