

Ankara University
Computer Engineering Department
COM267 HW 6 Due Date: 08.12.2017 23:59

Write a program that sorts the given integer values. The number of values is not known in advance and given in input.txt. Your program will output the sorted values and the structure of the tree using given output format. (Assume for this lab study, values are distinct). Use AVL tree in your program.

input.txt

72
18
28
36
27
117
108
90
-1

Your output will be the sorted list of given numbers (In-order walk on AVL tree produce the sorted list).

18
27
28
36
72
90
108
117

Your program should print the AVL tree in the following way (First number represents the value, second number displays the parent node and the third number shows the balance factor. B is used for balance factor, L represents left child and R represents right child).

28 (-1 B)
18 (28 L) (-1 B) 72 (28 R) (-1 B)
27 (18 R) (0 B) 36 (72 L) (0 B) 108 (72 R) (0 B)
90 (108 L) (0 B) 117 (108 R) (0 B)

Your compiled code will be executed using command line:
./a.out<input.txt