

CS69011: Computing Lab-1
Assignment 2: Binary Trees (Part - A)

August 14, 2023

=====Instructions=====

1. In the case of user input, assume only valid values will be passed as input.
2. Regarding submission: Create separate C file : <RollNo>_Q2.c
3. Create a zip file of all these C files in the name: <RollNo>_A2_BT_Part_B.zip and submit it to Moodle.
4. Q2 contains 30 marks.

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2. Assume that the houses in a city form a binary tree, where each house represents a node. Each node can only pass the information to parent and child nodes. Given an informant node , find the number of hours it will take to spread the information to all the houses.

Note : it takes 1 hour to move information from the current node to its adjacent nodes.

Input Format:

Input file with two rows:

First row contains string

Second row contains an informant node.

Output Format: Output contains a single integer equal to the minimum amount of hours in which information will pass on to every node(house).

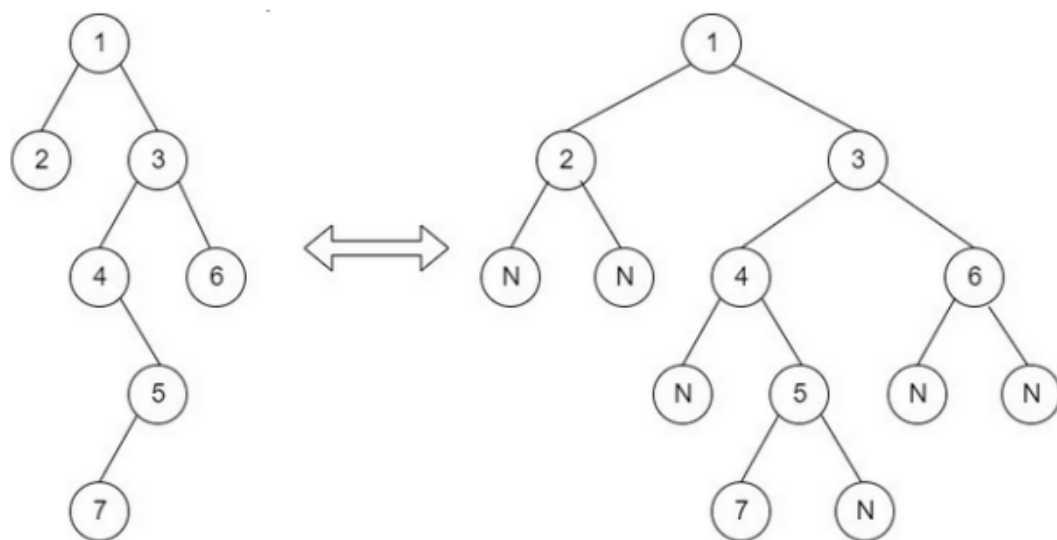
Input:-

1 2 3 N N 4 6 N 5 N N 7 N

3

Output:-

3



For the above tree, the string will be: 1 2 3 N N 4 6 N 5 N N 7 N