

1. Given a matrix of dimension $m \times n$ where each cell in the matrix can have values 0, 1 or 2 which has the following meaning:

0: Empty cell

1: Cells have healthy person

2: Cells have infected person

Determine what is the minimum time required so that every person is infected. An infected person at index $[i, j]$ can infect other healthy person at indexes $[i-1, j]$, $[i+1, j]$, $[i, j-1]$, $[i, j+1]$ (up, down, left and right). If it is impossible to infect every person then simply return -1.

Test Cases:

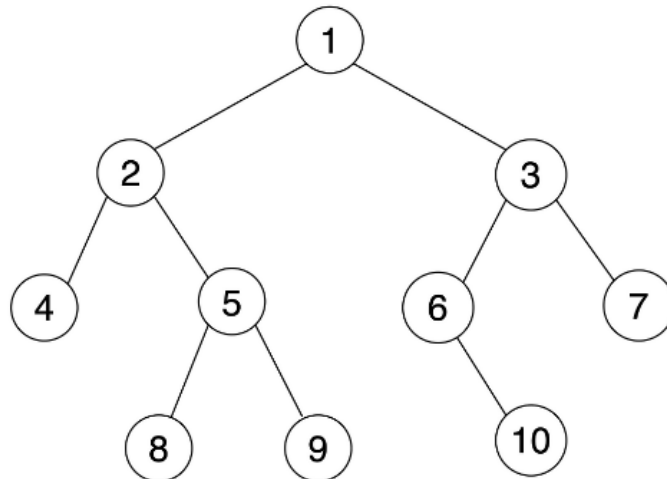
- | | |
|----------------------------------|------------|
| 1. $[[2,1,1], [1,1,0], [0,1,1]]$ | output = 4 |
| 2. $[[2,1,1], [0,1,1], [1,0,1]]$ | output = 1 |
| 3. $[[0,2]]$ | output = 0 |

2. **Sort Linked List**

i/p: -2 -> 10 -> 7 -> 5 -> -1 -> 2

Constraint: TC = $O(N \log N)$, SC = $O(1)$

3. **Create following Binary Tree from scratch. And print it using levelOrderTraversal.**



4. **Perform Inorder Traversal on above BTree.**

Constraint: SC = $O(1)$

Output = 4 2 8 5 9 1 6 10 3 7.

5. **Find LCA of node 8 and node 7 in above BTree.**

Output = 1

6. **Convert the above BTree into LL. (Flatten the BTree).**