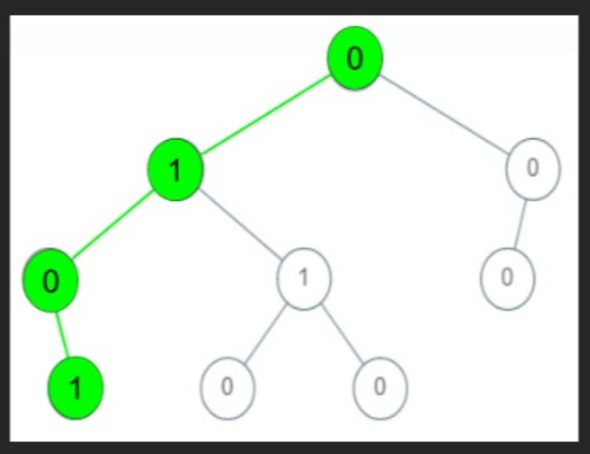
1430. Check If a String Is a Valid Sequence from Root to Leaves Path in a Binary Tree Premium

Medium Topics Hint

Given a binary tree where each path going from the root to any leaf form a **valid sequence**, check if a given string is a **valid sequence** in such binary tree.

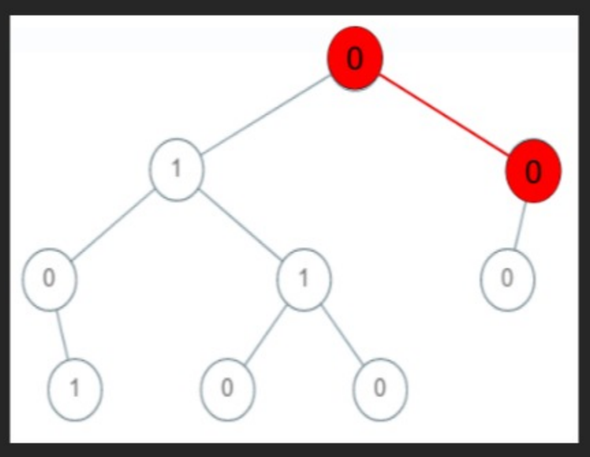
We get the given string from the concatenation of an array of integers `arr` and the concatenation of all values of the nodes along a path results in a **sequence** in the given binary tree.

Example 1:



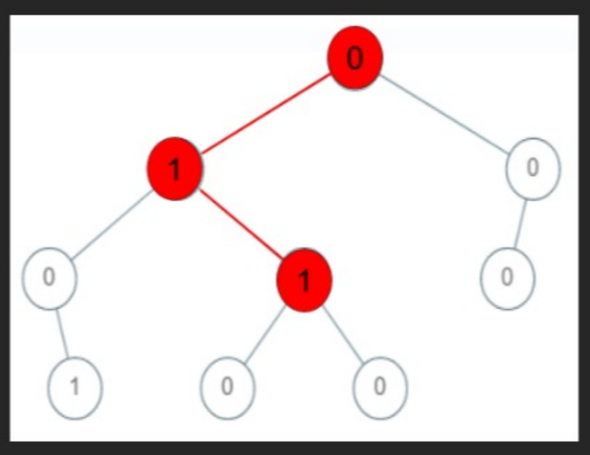

```
Input: root = [0,1,0,0,1,0,null,null,1,0,0], arr = [0,1,0,1]
Output: true
Explanation:
The path 0 -> 1 -> 0 -> 1 is a valid sequence (green color in the figure).
Other valid sequences are:
0 -> 1 -> 1 -> 0
0 -> 0 -> 0
```

Example 2:




```
Input: root = [0,1,0,0,1,0,null,null,1,0,0], arr = [0,0,1]
Output: false
Explanation: The path 0 -> 0 -> 1 does not exist, therefore it is not even a sequence.
```

Example 3:




```
Input: root = [0,1,0,0,1,0,null,null,1,0,0], arr = [0,1,1]
Output: false
Explanation: The path 0 -> 1 -> 1 is a sequence, but it is not a valid sequence.
```

Constraints:

- `1 <= arr.length <= 5000`
- `0 <= arr[i] <= 9`
- Each node's value is between [0 - 9].

Seen this question in a real interview before? 1/5

Yes No

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Topics

Tree Depth-First Search Breadth-First Search Binary Tree

Hint 1

Depth-first search (DFS) with the parameters: current node in the binary tree and current position in the array of integers.

Hint 2

When reaching at final position check if it is a leaf node.

Discussion (3)