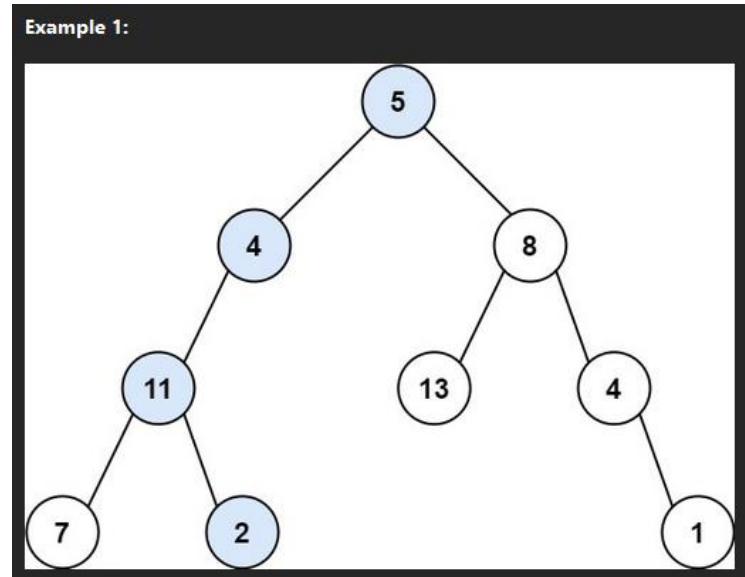


PROBLEM DFS

Given the `root` of a binary tree and an integer `targetSum`, return `true` if the tree has a **root-to-leaf** path such that adding up all the values along the path equals `targetSum`.

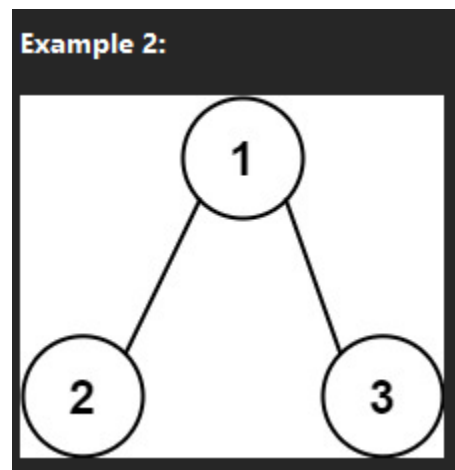
A **leaf** is a node with no children.



Input: `root = [5,4,8,11,null,13,4,7,2,null,null,null,1]`, `targetSum = 22`

Output: `true`

Explanation: The root-to-leaf path with the target sum is shown.



Input: `root = [1,2,3]`, `targetSum = 5`

Output: `false`

Explanation: There two root-to-leaf paths in the tree:

(1 --> 2): The sum is 3.

(1 --> 3): The sum is 4.

There is no root-to-leaf path with sum = 5.

Constraints:

- The number of nodes in the tree is in the range $[0, 5000]$.
- $-1000 \leq \text{Node.val} \leq 1000$
- $-1000 \leq \text{targetSum} \leq 1000$