

98. Validate Binary Search Tree

Difficulty : Medium

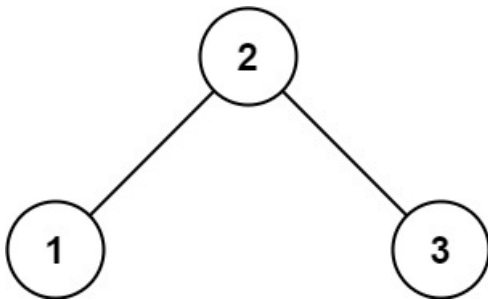
<https://leetcode.com/problems/validate-binary-search-tree>

Given the `root` of a binary tree, *determine if it is a valid binary search tree (BST)*.

A **valid BST** is defined as follows:

- The left subtree of a node contains only nodes with keys **less than** the node's key.
- The right subtree of a node contains only nodes with keys **greater than** the node's key.
- Both the left and right subtrees must also be binary search trees.

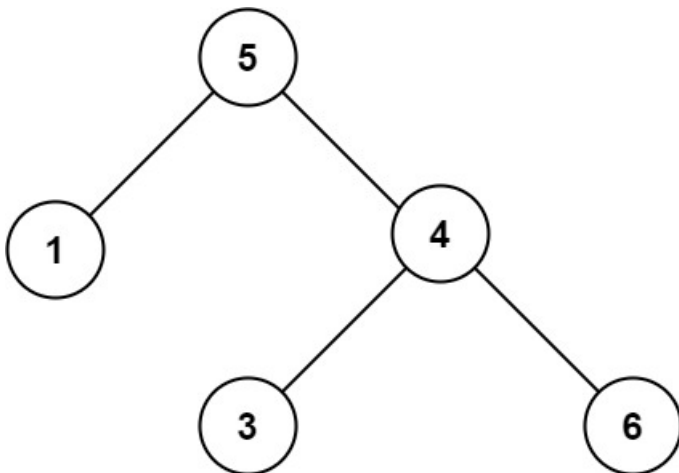
Example 1:



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

Output: `true`

Example 2:



Input: `root = [5,1,4,null,null,3,6]`

Output: `false`

Explanation: The root node's value is 5 but its right child's value is 4.

Constraints:

- The number of nodes in the tree is in the range $[1, 10^4]$.
- $-2^{31} \leq \text{Node.val} \leq 2^{31} - 1$