Deadline: 22nd Nov 2022

[Recover Binary Search Tree](https://leetcode.com/problems/recover-binary-search-tree/)

You are given the root of a binary search tree (BST), where the values of exactly two nodes of the tree were swapped by mistake. *Recover the tree without changing its structure*.

Examples:

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

Output: [3,1, null, null,2]

Explanation: 3 cannot be a left child of 1 because 3 > 1. Swapping 1 and 3 makes the BST valid.

[Lowest Common Ancestor of a Binary Search Tree](https://leetcode.com/problems/lowest-common-ancestor-of-a-binary-search-tree/)

Given a binary search tree (BST), find the lowest common ancestor (LCA) node of two given nodes in the BST.

According to the [definition of LCA on Wikipedia](https://en.wikipedia.org/wiki/Lowest_common_ancestor): “The lowest common ancestor is defined between two nodes p and q as the lowest node in T that has both p and q as descendants (where we allow a node to be a descendant of itself).”

Examples:

Input: root = [6,2,8,0,4,7,9,null,null,3,5], p = 2, q = 8

Output: 6

Explanation: The LCA of nodes 2 and 8 is 6.