Problem 508: Most Frequent Subtree Sum

Problem Information

Difficulty: Medium
Acceptance Rate: 68.57%
Paid Only: No
Tags: Hash Table, Tree, Depth-First Search, Binary Tree

Problem Description

Given the `root` of a binary tree, return the most frequent **subtree sum**. If there is a tie, return all the values with the highest frequency in any order.

The **subtree sum** of a node is defined as the sum of all the node values formed by the subtree rooted at that node (including the node itself).

Example 1:

Input: root = [5,2,-3] **Output:** [2,-3,4]

Example 2:

Input: root = [5,2,-5] **Output:** [2]

Constraints:

* The number of nodes in the tree is in the range `[1, 104]`. * `-105 <= Node.val <= 105`

Code Snippets

C++:

```
/**
* Definition for a binary tree node.
* struct TreeNode {
* int val;
* TreeNode *left;
* TreeNode *right;
* TreeNode() : val(0), left(nullptr), right(nullptr) {}
* TreeNode(int x) : val(x), left(nullptr), right(nullptr) {}
* TreeNode(int x, TreeNode *left, TreeNode *right) : val(x), left(left),
right(right) {}
* };
*/
class Solution {
public:
vector<int> findFrequentTreeSum(TreeNode* root) {

}
};
```

Java:

```
/**
* Definition for a binary tree node.
* public class TreeNode {
* int val;
* TreeNode left;
* TreeNode right;
* TreeNode() {}
* TreeNode(int val) { this.val = val; }
* TreeNode(int val, TreeNode left, TreeNode right) {
* this.val = val;
* this.left = left;
* this.right = right;
* }
* }
*/
class Solution {
public int[] findFrequentTreeSum(TreeNode root) {

}
}
```

Python3:

```
# Definition for a binary tree node.
# class TreeNode:
# def __init__(self, val=0, left=None, right=None):
# self.val = val
# self.left = left
# self.right = right
class Solution:
def findFrequentTreeSum(self, root: Optional[TreeNode]) -> List[int]:
```