# 1161. Maximum Level Sum of a Binary Tree

Given the root of a binary tree, the level of its root is 1, the level of its children is 2, and so on.

Return the smallest level x such that the sum of all the values of nodes at level x is maximal.

## SOLUTION IN C++

class Solution {

public:

int maxLevelSum(TreeNode\* root) {

int ans = 0;

int maxLevelSum = INT\_MIN;

queue<TreeNode\*> q{{root}};

for (int level = 1; !q.empty(); ++level) {

int levelSum = 0;

for (int sz = q.size(); sz > 0; --sz) {

TreeNode\* node = q.front();

q.pop();

levelSum += node->val;

if (node->left != nullptr)

q.push(node->left);

if (node->right != nullptr)

q.push(node->right);

}

if (levelSum > maxLevelSum) {

maxLevelSum = levelSum;

ans = level;

}

}

return ans;

}

};