104. Maximum Depth of Binary Tree

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- **Depth-first Search** + Tree

Description

Given a binary tree, find its maximum depth.

The maximum depth is the number of nodes along the longest path from the root node down to the farthest leaf node.

For example:
Given binary tree `[3,9,20,null,null,15,7]`,

```
    3
   / \
  9  20
    /  \
   15   7
```

return its depth = 3.

1. Thought line

2. Depth-first Search + Tree

```cpp
/**
 * Definition for a binary tree node.
 * struct TreeNode {
 *     int val;
 *     TreeNode *left;
 *     TreeNode *right;
 *     TreeNode(int x) : val(x), left(NULL), right(NULL) {}
 * };
 */


class Solution {
public:
    int maxDepth(TreeNode* root) {
        if (root==nullptr) return 0;
        return 1+max(maxDepth(root->left),maxDepth(root->right));
    }
};
```