一、题目说明

题目337. House Robber III，所有的房子连成二叉树状，不能“抢”直连的两个房间，请问最多可以抢到多少。难度是Medium！

二、我的解答

惭愧，这个题目思路始终不对。提交了n次也不正确，看了正确的思路：爷爷节点能偷到的最大钱=max(4个孙子偷的钱 + 爷爷的钱,两个儿子能偷的钱)

```
class Solution{
    public:
        //recursive + memo
        int rob(TreeNode* root){

            if(root==NULL){
                return 0;
            }
            ump.clear();
            return  dfs(root);
        }
        int dfs(TreeNode*root){
            if(root==NULL) return 0;
            if(ump.count(root)>0){
                return ump[root];
            }

            int money = root->val;
            if(root->left!=NULL){
                money += dfs(root->left->left) + dfs(root->left->right);
            }
            if(root->right!=NULL){
                money += dfs(root->right->left) + dfs(root->right->right);
            }
            int result = max(money,dfs(root->left)+dfs(root->right));
            ump[root] = result;
            return result;
        }
    private:
        unordered_map<TreeNode*,int> ump;
};
```

```
Runtime: 16 ms, faster than 81.99% of C++ online submissions for House Robber III.
Memory Usage: 23.1 MB, less than 55.56% of C++ online submissions for House Robber III.
```

三、优化措施

当然还有其他思路，略！