一、题目说明

题目104. Maximum Depth of Binary Tree，求二叉树的最大高度。难度是Easy!

二、我的解答

按层遍历二叉树，就可以计算最大深度。下面是非递归算法：

```
class Solution{
    public:
        int maxDepth(TreeNode* root){
            queue<TreeNode*> q;
            TreeNode* p;
            if(root==NULL) return 0;
            q.push(root);
            int maxDep = 0;
            int curLevelNum = 1,nextLevelNum = 0;
            while(! q.empty()){
                for(int i=0;i<curLevelNum;i++){
                    p = q.front();
                    q.pop();

                    if(p->left !=NULL){
                        q.push(p->left);
                        nextLevelNum++;
                    }
                    if(p->right !=NULL){
                        q.push(p->right);
                        nextLevelNum++;
                    }
                }
                curLevelNum = nextLevelNum;
                nextLevelNum = 0;
                maxDep++;
            }
            return maxDep;
        }
};
```

性能如下：

```
Runtime: 8 ms, faster than 89.13% of C++ online submissions for Maximum Depth of
Binary Tree.
Memory Usage: 19.3 MB, less than 79.12% of C++ online submissions for Maximum
Depth of Binary Tree.
```

三、优化措施

Easy，就不优化了。