

```

1  题目：分行打印二叉树
2  /*
3  struct TreeNode {
4      int val;
5      struct TreeNode *left;
6      struct TreeNode *right;
7      TreeNode(int x) :
8          val(x), left(NULL), right(NULL) {
9      }
10 };
11 */
12 class Solution {
13 public:
14     vector<vector<int>> > Print(TreeNode* pRoot) {
15
16         // 存储结果
17         vector<vector<int>> result; // 存储全部节点
18         vector<int> temp;          // 存储某一层节点
19
20         // 边界条件
21         if(pRoot == nullptr)
22             return result;
23
24         // 辅助容器：队列
25         queue<TreeNode*> q;
26         TreeNode* fr;
27         int now_level=1;
28         int next_level=0;
29
30         // 根节点入队列
31         q.push(pRoot);
32
33         // 遍历队列
34         while(!q.empty())
35         {
36             // 节点弹出队列
37             fr=q.front();
38             temp.push_back(fr->val);
39             q.pop();
40
41             // 遍历节点左右子树
42             if(fr->left != NULL){
43                 q.push(fr->left);
44                 ++next_level;
45             }
46             if(fr->right != NULL){
47                 q.push(fr->right);
48                 ++next_level;
49             }
50             --now_level;
51
52             // 判断当前层是否打印完
53             if(now_level==0){
54                 now_level=next_level;
55                 next_level=0;
56                 result.push_back(temp);
57                 temp.clear(); // 清除一维vector
58             }
59         }
60
61         return result;
62     }
63 };

```