

637. Average of Levels in Binary Tree



Given a non-empty binary tree, return the average value of the nodes on each level in the form of an array.

Example 1:

Input:

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

Output: [3, 14.5, 11]

Explanation:

The average value of nodes on level 0 is 3, on level 1 is 14.5, and on level 2 is 11.

Note:

1. The range of node's value is in the range of 32-bit signed integer.

求二叉树每层节点的平均值

BFS, level order

1. BFS with Queue
2. loop `queue.size()` times to double sum all the values
3. `poll()` the node and add its left and right into the queue
4. add the `double sum / int size` to result List