Algorithm Populate the *next_right* pointers by connecting all the nodes at the same level

1: **function** Connect_Nodes_At_Same_Level(*root*)
    ▷ Queue stores the pointers of the nodes.

2:    **if** Tree is empty **then**
3:        **return**

4:    $marker \leftarrow nullptr$
5:    $queue.push(root)$
6:    $queue.push(marker)$
7:    **while** Queue is not empty **do**
8:        **if** $queue.front == marker$ **then**
9:            $queue.pop$
10:            **if** $queue$ is **not empty then**
11:                $queue.push(marker)$
12:        $current\_node \leftarrow queue.front$
13:        $queue.pop$
14:        $current\_node.next\_right \leftarrow queue.front$ ▷ The queue can also contain the marker
15:        **if** Left Child Exists **then**
16:            $queue.push(current\_node.left)$
17:        **if** Right Child Exists **then**
18:            $queue.push(current\_node.right)$