Given a binary tree

struct TreeLinkNode {

TreeLinkNode \*left;

TreeLinkNode \*right;

TreeLinkNode \*next;

}

Populate each next pointer to point to its next right node. If there is no next right node, the next pointer should be set to NULL.

Initially, all next pointers are set to NULL.

**Note:**

* You may only use constant extra space.
* You may assume that it is a perfect binary tree (ie, all leaves are at the same level, and every parent has two children).

For example,  
Given the following perfect binary tree,

1

/ \

2 3

/ \ / \

4 5 6 7

After calling your function, the tree should look like:

1 -> NULL

/ \

2 -> 3 -> NULL

/ \ / \

4->5->6->7 -> NULL

递归实现：

如果root不是空，

如果root有左子树（根据假设一定有右子树）：

左子树的next指向右子树

如果root有右子树且next不为空

右子树的next指向root.next的左子树

递归root的左子树和右子树