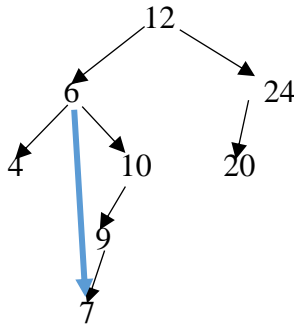


def find_successor (self): # returns the node that is the inorder successor of the node

find_successor must return the node that is the inorder successor of the node.

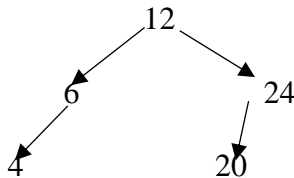
inoreder traverse is based on left-root-right, thus the inorder successor maintain the tree from smallest to largest. You need to consider three cases:

- 1) It should maintain inorder, thus if node has a right subtree it should return the node with smallest key in the right subtree.



Successor of 6 will be 7

- 2) If the node has no right child, and
 - a. the node is left child of its parent, then parent will be successor



Successor of 6 will be 12

- 3) if the node is right child of its parent and has no right child then the successor of this node will be successor of its parent excluding this node

Successor of 10 will be successor of 6

