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Step 1 - understand the starter code

What methods do you need to write:

Insert, left rotation, right rotation

Copy and paste the code that creates a single node in the AVL tree.

```
def insert(self, node, root):  
    if not root:  
        root = node  
    # go to the left  
    elif node.key < root.key:  
        root.left = self.insert(node, root.left)  
    # go to the right  
    else:  
        root.right = self.insert(node, root.right)
```

Step 2 - understand the AVL data structure

The starter code refers to the following variables. Explain what they represent:

Node: is a single point on the tree

Root: a root is any node with a leaf,

node.key: is the value of the node

Node.left: is the left node of the current root

Node.right: right node of the current root

Step 3 - understand the insertion AVL pseudocode

How will you perform a left-right rotation?

Left rotation for the left child, reset the left child of the root, then run a right rotation for the root

How will you perform a right-left rotation?

Right rotation for the right child. Reset the child to the root. Left rotation for the root

Step 4 - modify your insertion AVL pseudocode

Modify the pseudocode by replacing your code with the variables from step 2.

Left rotation for node.left, reset node.left of the root, then a right rotation on the root

Right rotation for node.right. Reset the node.right to the root. Left rotation for the root

Step 5 - links to your solutions

Link to your solution(s) of tree1.txt:

<http://bridges-cs.herokuapp.com/assignments/1/jmjelde>
http://bridges-cs.herokuapp.com/assignments/1/john_mohr

Link to your solution(s) of tree2.txt:

<http://bridges-cs.herokuapp.com/assignments/2/jmjelde>
http://bridges-cs.herokuapp.com/assignments/2/john_mohr

Link to your solution(s) of tree3.txt:

<http://bridges-cs.herokuapp.com/assignments/3/jmjelde>
http://bridges-cs.herokuapp.com/assignments/3/john_mohr

Link to your solution(s) of tree4.txt:

<http://bridges-cs.herokuapp.com/assignments/4/jmjelde>
http://bridges-cs.herokuapp.com/assignments/4/john_mohr