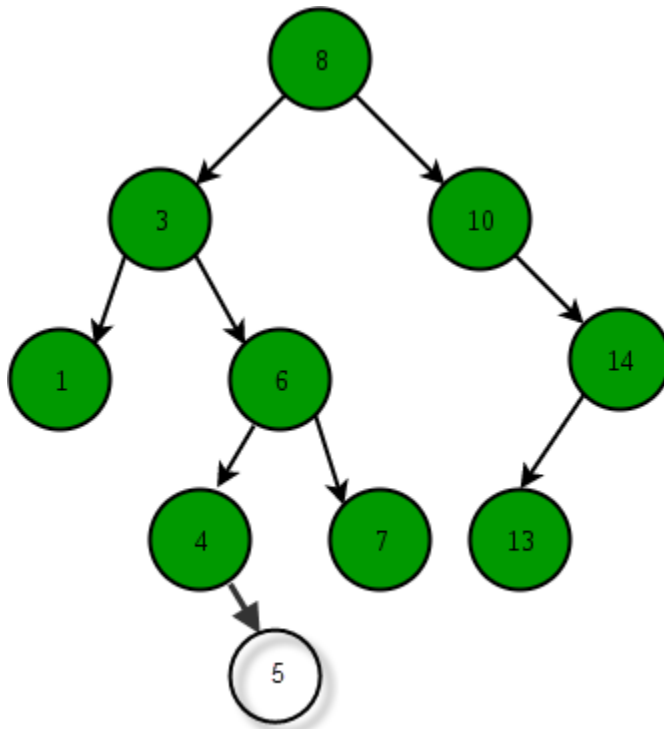


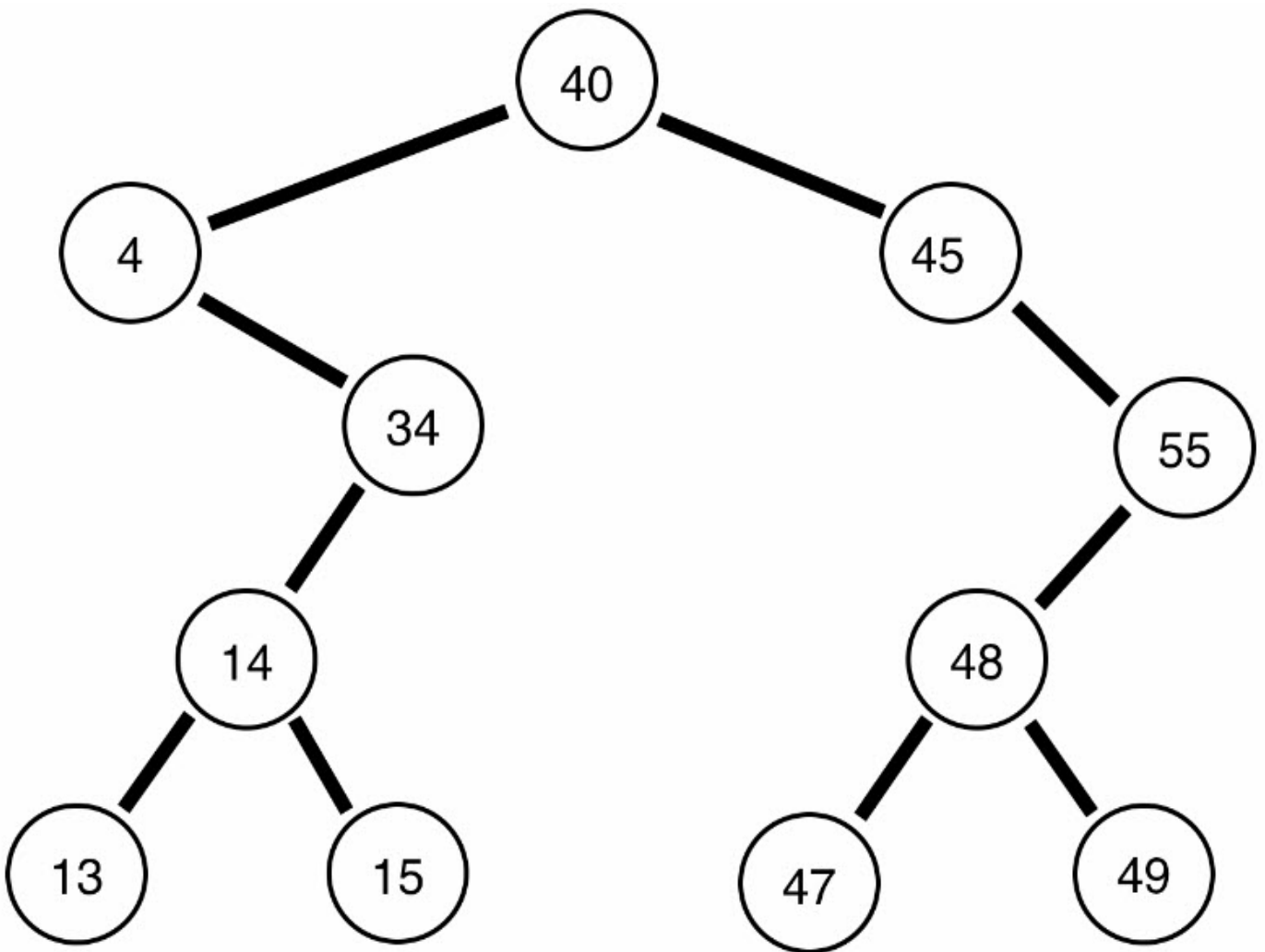
Homework-3 q1



In order traversal => 1-3-4-5-6-7-8-10-13-14

Preorder => 8-3-1-6-4-5-7-10-14-13

Post order => 1-5-4-7-6-3-13-14-10-8



Inorder traversal => 4,13,14,15,34,40,,45,47,48,49,55

Preorder => 4,14,13,15,34,40,48,47,49,55,45

Post order => 13, 15, 14, 34, 4, 47, 49, 48, 55, 45, 40

```

class TreeNode:
    def __init__(self, val=0, left=None, right=None):
        self.val = val
        self.left = left
        self.right = right

class Solution:
    def isSameTree(self, p: TreeNode, q: TreeNode) -> bool:
        # If both nodes are None, they are the same
        if not p and not q:
            return True
        # If one node is None and the other is not, they are different
        if not p or not q:
            return False
        # If the values are not the same, they are different
        if p.val != q.val:
            return False

        return self.isSameTree(p.left, q.left) and self.isSameTree(p.right,
q.right)

p1 = TreeNode(1)
p1.left = TreeNode(2)
p1.right = TreeNode(3)

q1 = TreeNode(1)
q1.left = TreeNode(2)
q1.right = TreeNode(3)

p2=TreeNode(1)
p2.left=TreeNode(2)
q2=TreeNode(1)
q2.right=TreeNode(2)

p3 = TreeNode(1)
p3.left = TreeNode(2)
p3.right = TreeNode(1)

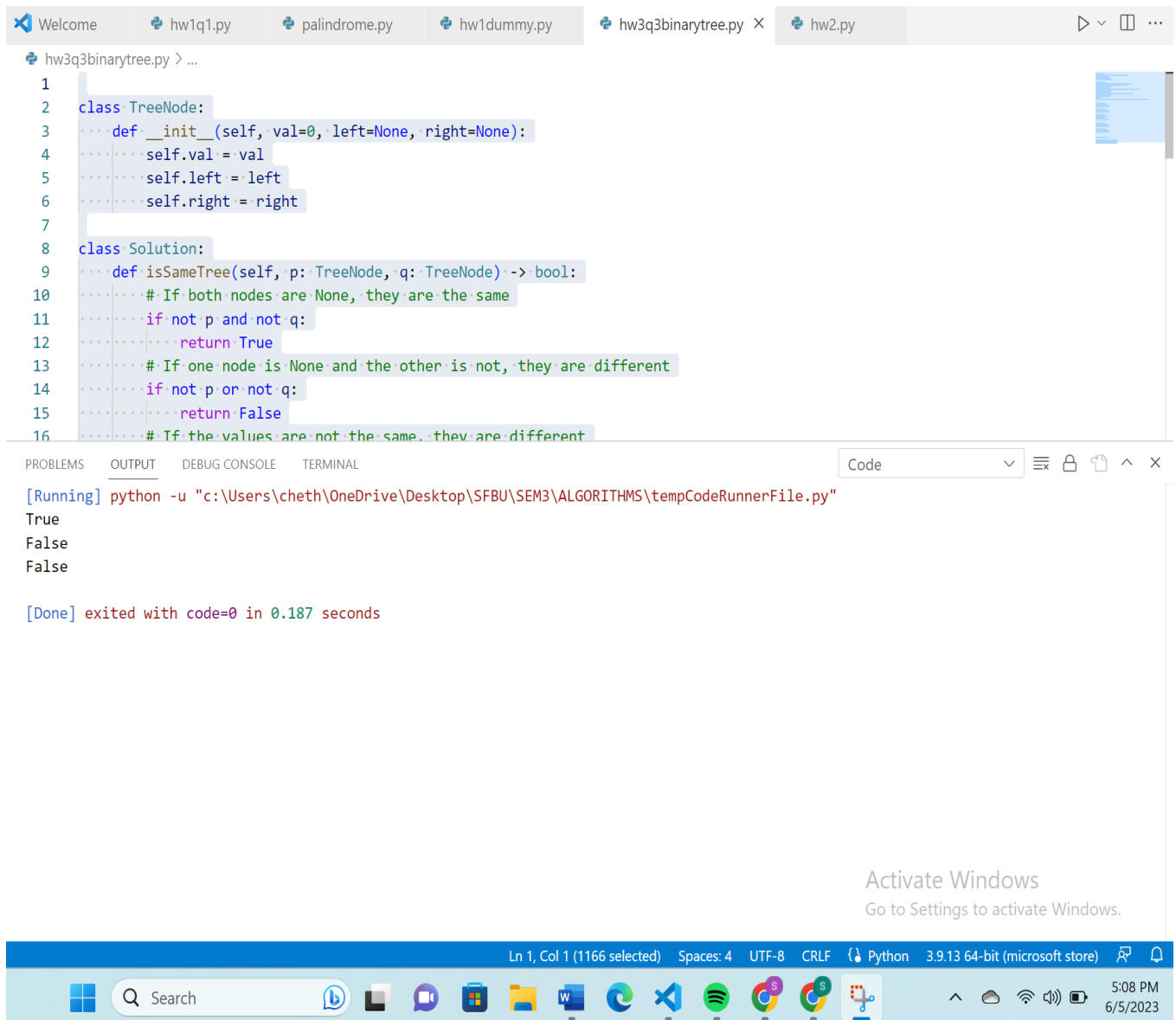
q3 = TreeNode(1)
q3.left = TreeNode(1)

```

```
q3.right = TreeNode(2)
```

```
solution = Solution()
```

```
print(solution.isSameTree(p1, q1))  
print(solution.isSameTree(p2, q2))  
print(solution.isSameTree(p3, q3))
```



```
1  
2 class TreeNode:  
3     def __init__(self, val=0, left=None, right=None):  
4         self.val = val  
5         self.left = left  
6         self.right = right  
7  
8 class Solution:  
9     def isSameTree(self, p: TreeNode, q: TreeNode) -> bool:  
10        # If both nodes are None, they are the same  
11        if not p and not q:  
12            return True  
13        # If one node is None and the other is not, they are different  
14        if not p or not q:  
15            return False  
16        # If the values are not the same, they are different
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

[Running] python -u "c:\Users\cheth\OneDrive\Desktop\SFBU\SEM3\ALGORITHMS\tempCodeRunnerFile.py"

True
False
False

[Done] exited with code=0 in 0.187 seconds

Activate Windows
Go to Settings to activate Windows.

Ln 1, Col 1 (1166 selected) Spaces: 4 UTF-8 CRLF Python 3.9.13 64-bit (microsoft store)

5:08 PM
6/5/2023