

**Problem 5:** Given a binary tree, Find the Lowest Common Ancestor for two given Nodes (x,y).

class Node:

```
def __init__(self, value):
```

```
    self.value = value
```

```
    self.left = None
```

```
    self.right = None
```

```
def find_lowest_common_ancestor(root, x, y):
```

```
    if root is None:
```

```
        return None
```

```
    if root.value == x or root.value == y:
```

```
        return root.value
```

```
    left_lca = find_lowest_common_ancestor(root.left, x, y)
```

```
    right_lca = find_lowest_common_ancestor(root.right, x, y)
```

```
    if left_lca is not None and right_lca is not None:
```

```
        return root.value
```

```
    return left_lca if left_lca is not None else right_lca
```

```
root = Node(3)
```

```
root.left = Node(6)
```

```
root.right = Node(8)
```

```
root.left.left = Node(2)
```

```
root.left.right = Node(11)
```

```
root.left.right.left = Node(9)
```

```
root.left.right.right = Node(5)
```

```
root.right.right = Node(13)
```

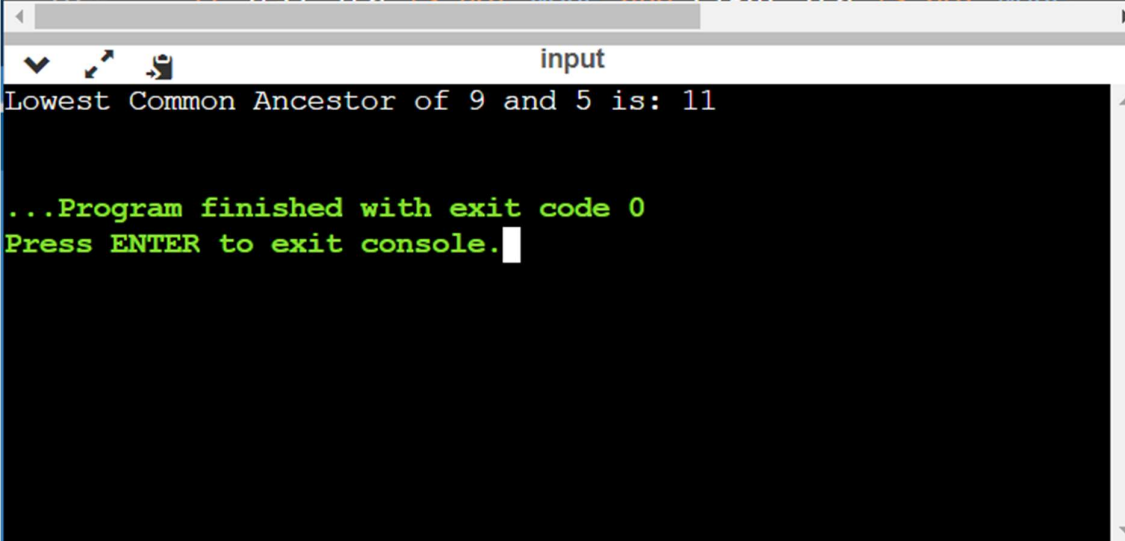
```
root.right.right.left = Node(7)
```

```
x = 9
```

```
y = 5
```

```
lca = find_lowest_common_ancestor(root, x, y)
```

```
print("Lowest Common Ancestor of", x, "and", y, "is:", lca)
```



```
input
Lowest Common Ancestor of 9 and 5 is: 11

...Program finished with exit code 0
Press ENTER to exit console.
```