

**Problem 4:** Write a program to check whether a binary tree is symmetrical or not.

```
class Node:
```

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

```
        self.data = data
```

```
        self.left = None
```

```
        self.right = None
```

```
def isMirror(root1, root2):
```

```
    if root1 is None and root2 is None:
```

```
        return True
```

```
    if root1 is not None and root2 is not None:
```

```
        if root1.data == root2.data:
```

```
            return (isMirror(root1.left, root2.right) and
```

```
                    isMirror(root1.right, root2.left))
```

```
    return False
```

```
def isSymmetric(root):
```

```
    if root is None:
```

```
        return True
```

```
    return isMirror(root, root)
```

```
root = Node(1)
```

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

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

```
root.left.left = Node(3)
```

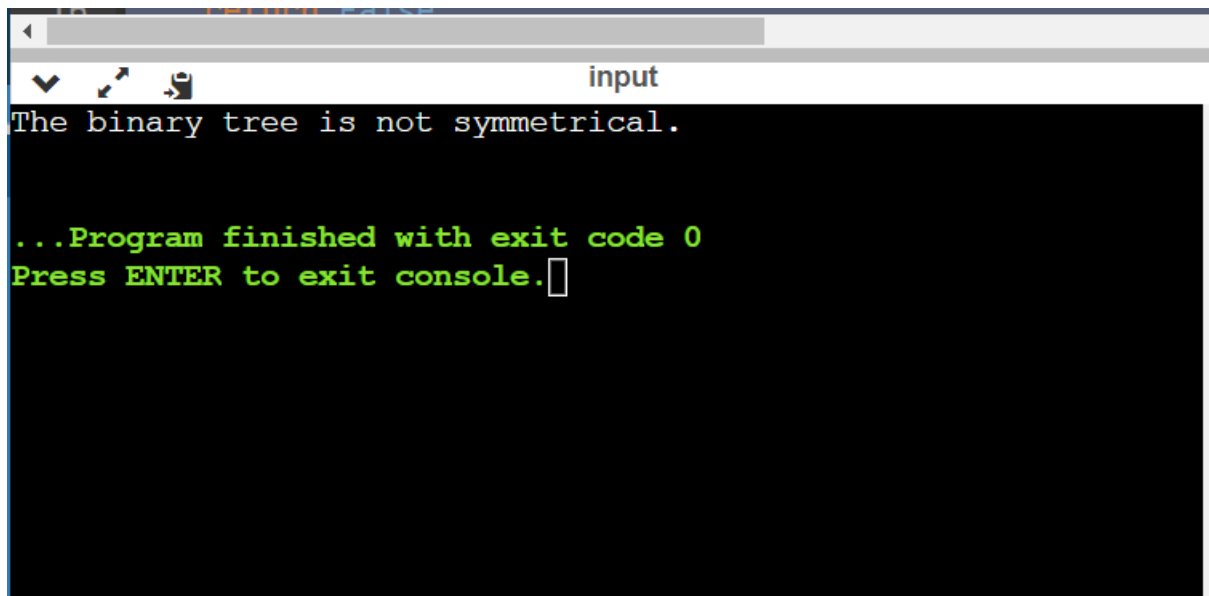
```
root.left.right = Node(4)
```

```
root.right.left = Node(4)
```

```
root.right.right = Node(3)
```

```
root.left.left.left = Node(5)
root.left.left.right = Node(6)
root.right.right.right = Node(5)
```

```
if isSymmetric(root):
    print("The binary tree is symmetrical.")
else:
    print("The binary tree is not symmetrical.")
```

A screenshot of a terminal window. The window has a title bar with the word "input" on the right. The terminal content shows the output of a program: "The binary tree is not symmetrical." followed by a green message: "...Program finished with exit code 0" and "Press ENTER to exit console." with a cursor. Above the terminal window, a line of code "return False" is partially visible.

```
return False
```

input

The binary tree is not symmetrical.

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