

Evan Johnson

Evan-Johnson-WV

1/21/24

Assignment 7c

Mutating a value is the act of modifying or changing the value of an element assigned to a variable already. For example, if it is a list, it can be changing one of the elements within that list. When mutating a value, the variable is still referencing the same object there are just modifications being performed on the object. Rebinding a variable changes the object the variable is referencing entirely, forgetting the initial object and substituting it for another one completely.

Say a student wants to make two identical lists but wants to mutate the values in only one of the lists. Such as making a list of numbers and squaring the odd numbers in the list, while keeping the original set of numbers. They might write a code like this:

```
list_1 = [3, 7, 5, 2, 9, 8]
list_2 = list_1
for index, value in enumerate(list_2):
    if value % 2 == 1:
        list_1[index] = value * value
print(list_1)
print(list_2)
```

Since list_1 and list_2 are set equal to each other, any mutations made to either list_1 or list_2 will be reflected on the other. What the student could have done is rebound list_2 to another list where the odds are squared instead of trying to do it directly like this.