

Binding is when Python does not create or copy an object, but only assigns a name to an object. Rebinding is when you bind an object that was already bound and reassign a new name. Mutating is when you do not create a new object and only change the existing value.

Example of binding:

```
X=1
```

```
Y=3
```

```
Z=x
```

The value 1 is bound to variable name x, the value of 3 is bound to variable name y, and value of x is bound to variable name z.

Example of rebinding:

```
X=1
```

```
Z=1
```

```
Y=3
```

```
X=y
```

Here, Python rebinds the variable name x with the value of y.

Example of mutating:

```
X = [2 , 4]
```

The object [2 , 4] is bound with variable name x.

```
Y=x
```

This binds object [2,4] with variable name y. Both names x and y have the same value. If we append the value, this changes the value that both names x and y are pointing to. Someone who doesn't understand the difference will think that y is still [2,4] and will create errors.