

## A common error with for-loops

(We saw this earlier when learning the memory model.)

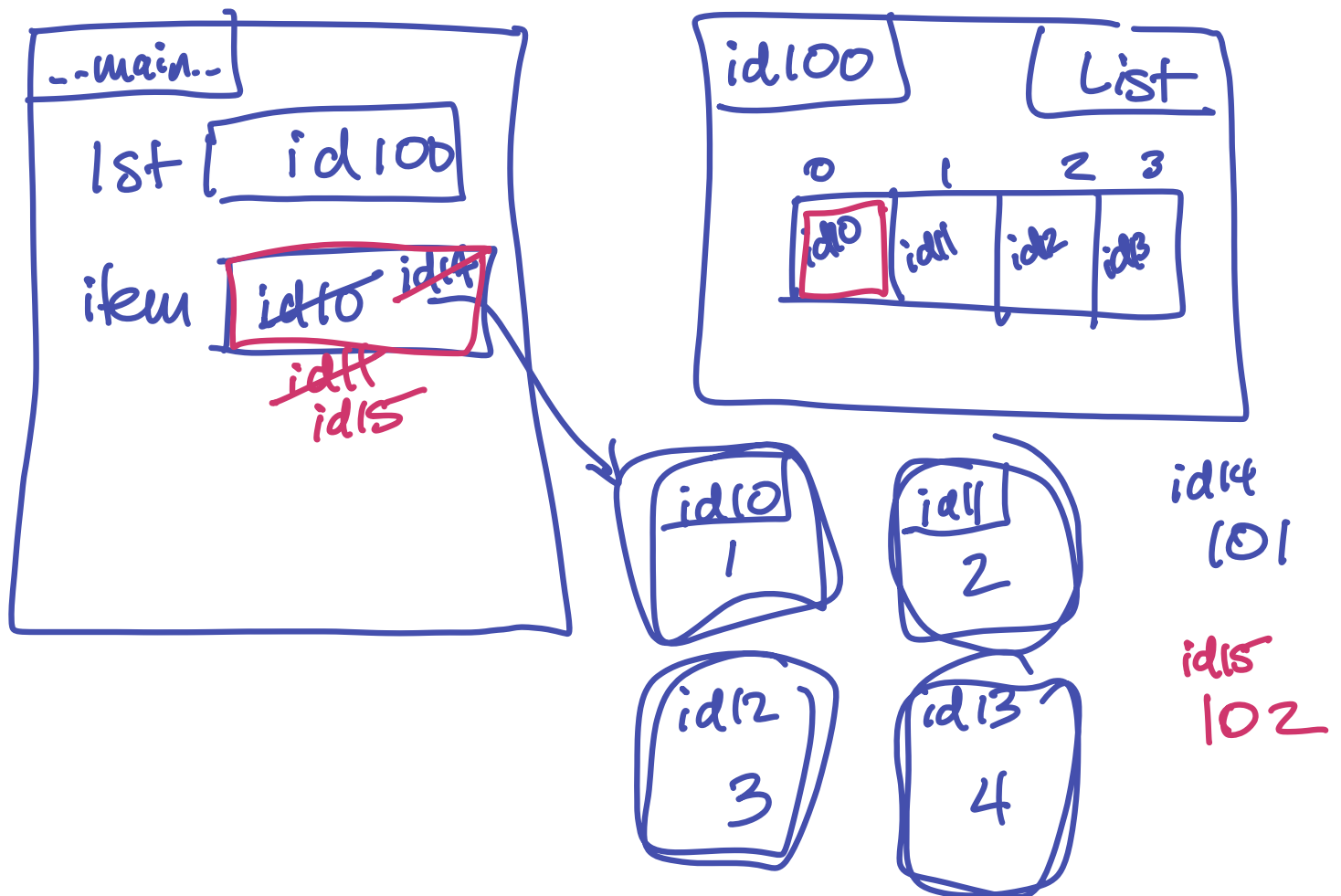
This loop does not change list:

list = [1, 2, 3, 4]

for item in list:

item += 1

Below is what happens in memory. We never change the List object.



`item = lst[0]`

`item += 100`

`item = lst[1]`

`item += 100`

`item = lst[2]`

`item += 100`

`item = lst[3]`

`item += 100`

This is what the for-loop above does.

We set `item` to each element of `lst` in turn, and for each one, we do the loop body.

Net effect? No change to the `lst` object.