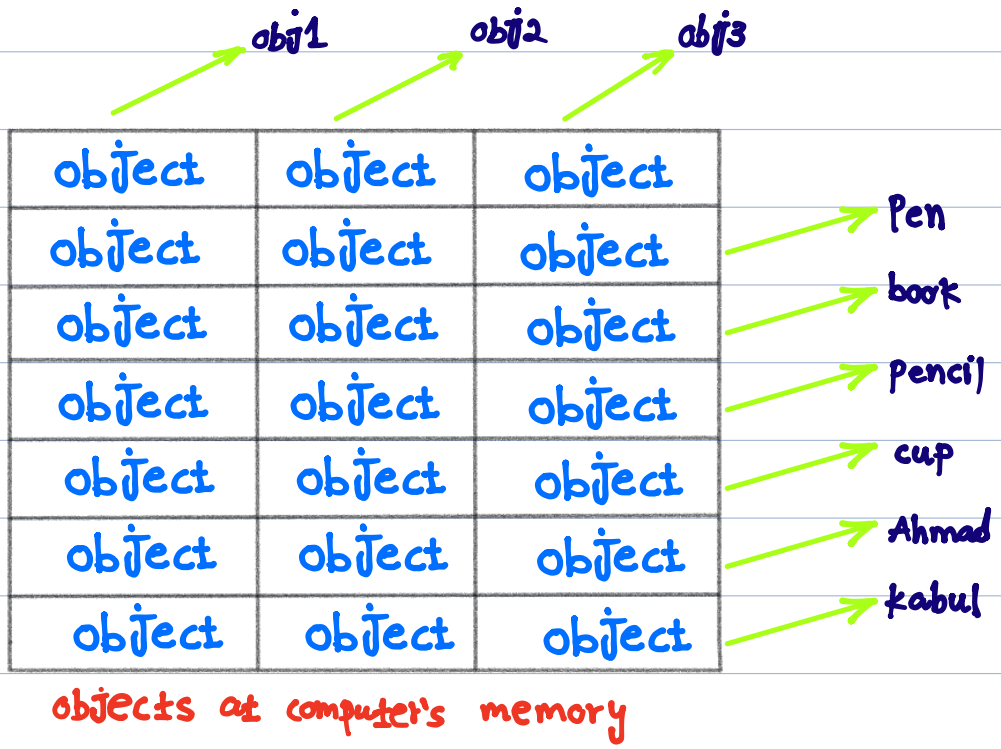
variables

object	object	object
object	object	object
object	object	object
object	object	object
object	object	object
object	object	object
object	object	object

objects at computer's memory

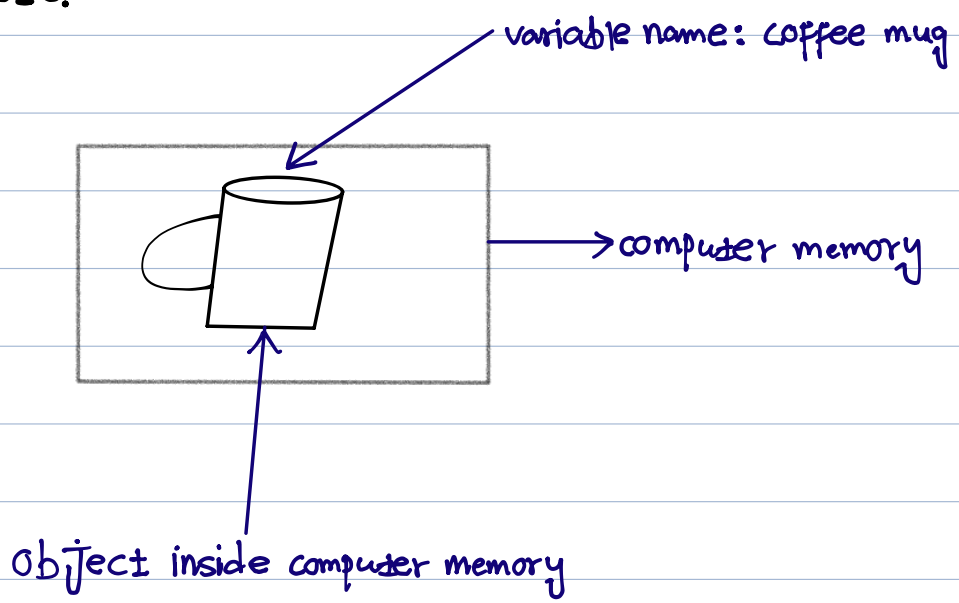
How to have access to them?



Address to the value of each object in a computer memory is stored in a variable.

from figure-1, it can be observed that it gets very much difficult if addresses to those objects are not stored in variables.

variable stores addresses of the, not the values of those objects.



swapping

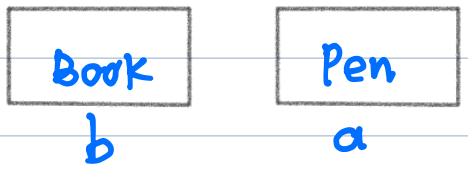
swapping of two variables means changing the references to the objects they points to.

a = Pen, means the address of "Pen" is saved to or assigned to variable "a".

b = book

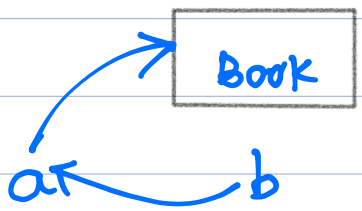
Now, by swapping we want to store address of "book" object into variable 'a' and address of "Pen" object into variable 'b'.

if we directly swap the addresses between them, the Address of one of the objects will be lost.



a = b
b = a

Now



both of them are referencing to book object, and reference to pen is lost.

what to do?

Create a new variable to hold a reference to either of the objects, and start swapping.

temp = a
a = b
b = temp