

Arrays

↳ Syntax

limited number

Static array

$[int[] arr] = [new int[] [Size]]$ — initialization

↳ $[datatype [] Name = new datatype [size]]$ ✓

square brackets

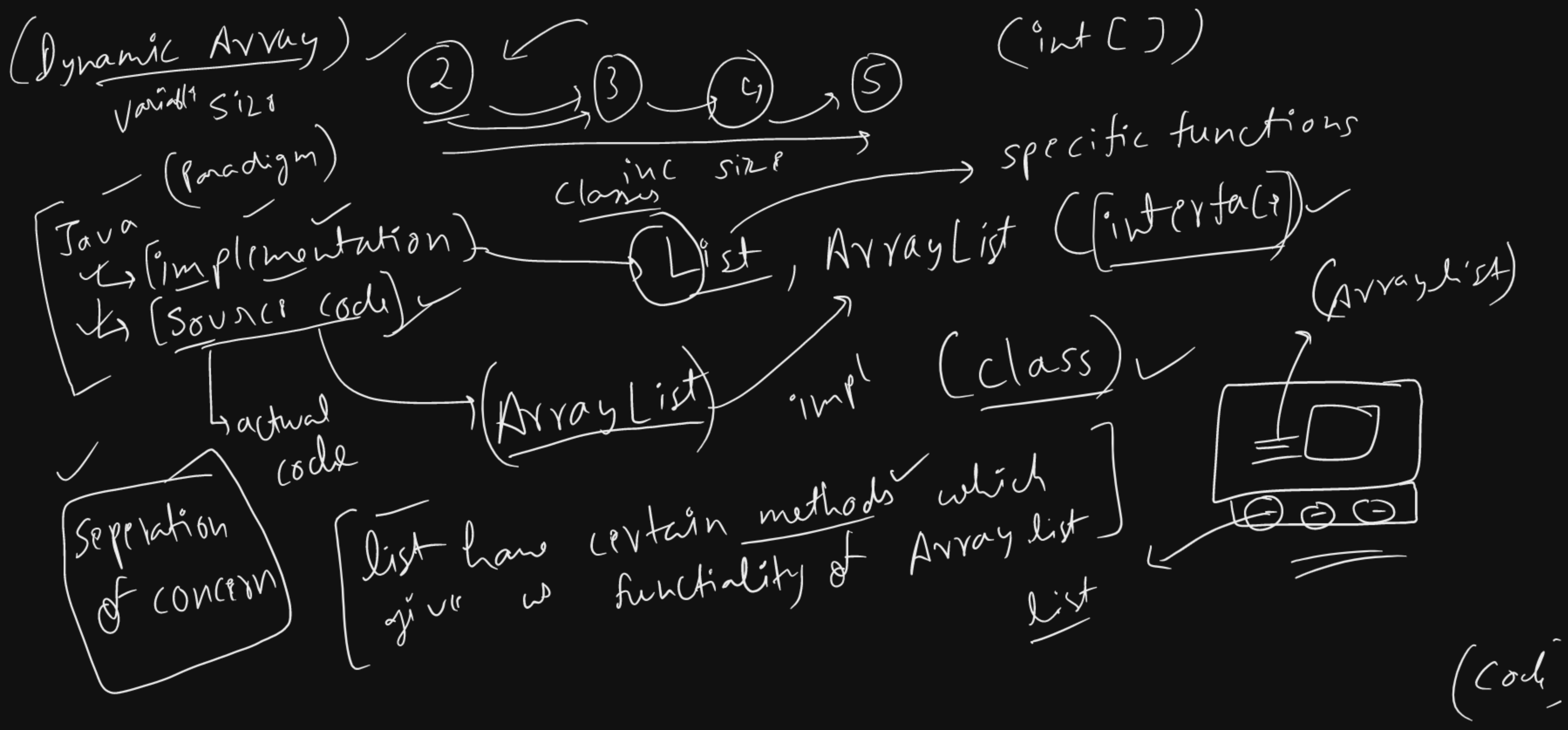
Ambiguous

$int[] arr = \{1, 2, 3, 4, 5\}$ ✓

$int arr[];$ ✓

$(arr = new int[];)$ ✗

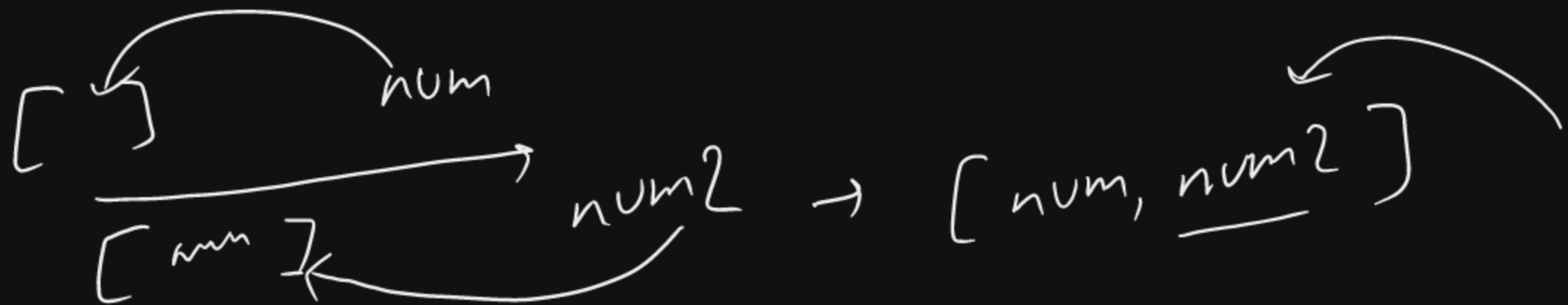
Declaration



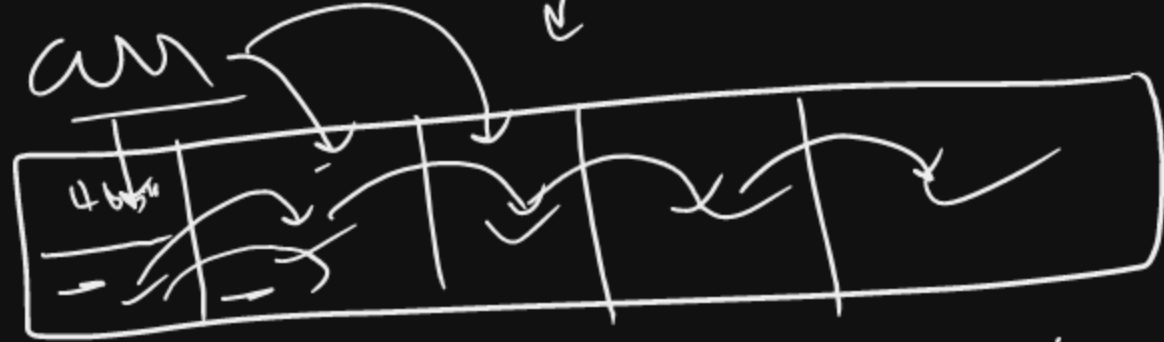
Dynamic Array

- ClassName < Datatype > ArrName = new [ClassName < Datatype > ()];
- InterfaceName < Datatype > ArrName = new [className < Datatype > ()];
- (interface) : List, (class) ArrayList
 - [ArrayList < Integer > arr = new ArrayList < Integer > ();
 - [List < Integer > arrList = new ArrayList < > ();

ls.add()

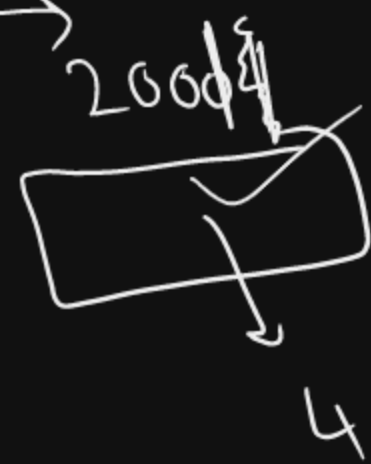
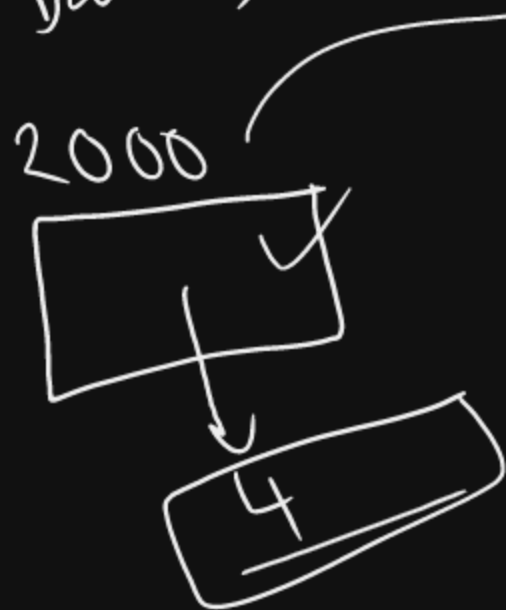


Working of Array



5 x 4 \rightarrow (20 bytes)

Data type (4)



arr[0], arr[1], arr[2]

concept
 $arr + \boxed{0} \rightarrow 1^{st} \text{ Element}$
 \downarrow
address (arr) + 1 $\rightarrow 2^{nd} \text{ Element}$