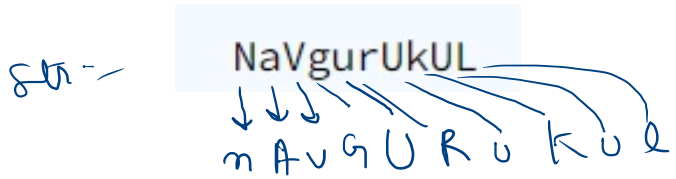
Toggle Case (23 July)



ASCII

a = 97

97 - 32

A = 65 (ASCII)

Convert

LowerCase $\xrightarrow{-32}$ UpperCase

Eg a → 97 - 32 = 65 → Char A

d → 100 - 32 = 68 → Char D

UpperCase $\xrightarrow{+32}$ LowerCase

A $\longrightarrow$ ~~A~~ (65) $+32 \longrightarrow 97 \xrightarrow{chr}$ a

D $\longrightarrow 68+32 \longrightarrow 100 \xrightarrow{chr}$ d

isUpperCase $\longrightarrow$ 65 $\leq$ ch $\leq$ 90 | Character.isUpperCase(ch)

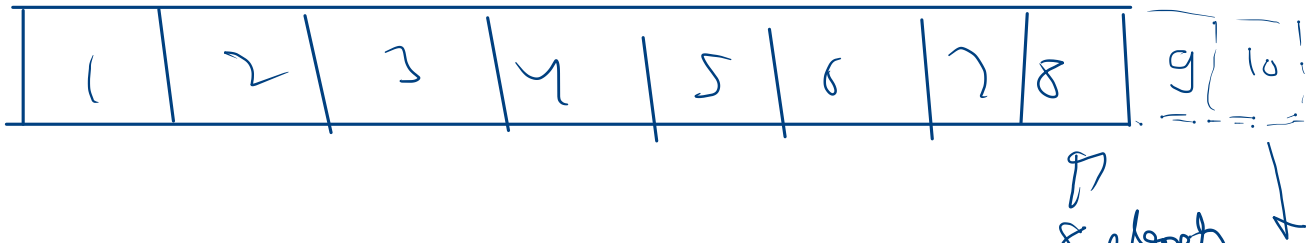
isLowerCase $\longrightarrow$ 97 $\leq$ ch $\leq$ 122 | Character.isLowerCase(ch)

ArrayList (array)

→ Dynamic in size

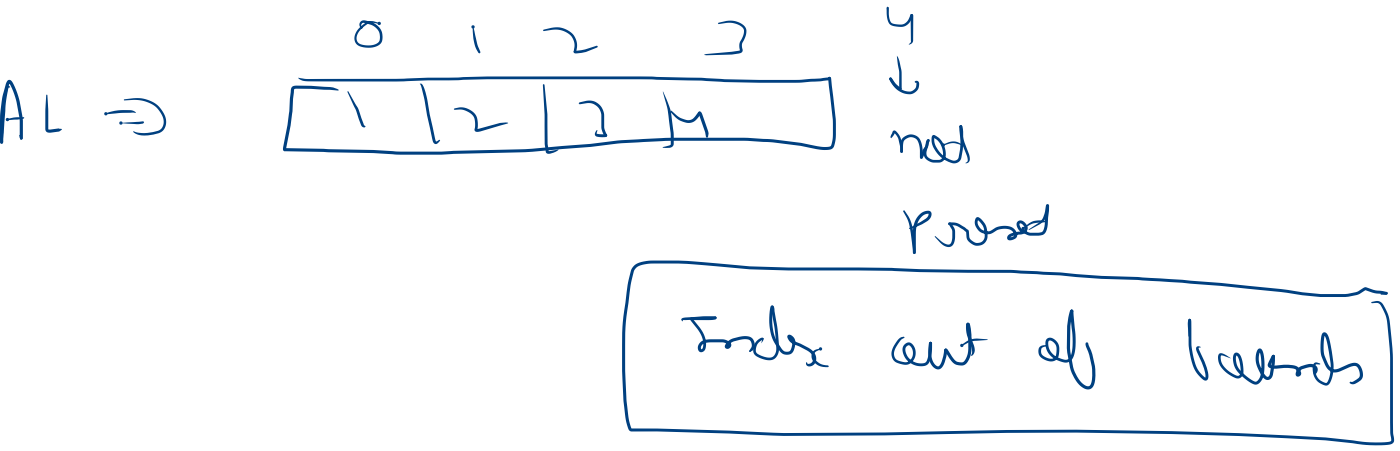
→ Non primitive & in heap memory

→ Dynamic Array



→ Continuous in memory

→ Collection of similar datatype



Package → java.util.ArrayList

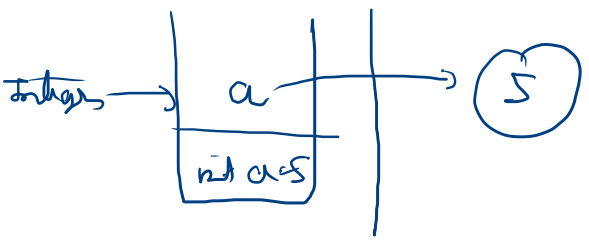
Syntax

Array ⇒ int [] arr = new int [size 10]

AL → ArrayList< int > X not allow → Primitive

ML → ArrayList<Integer> list = new ArrayList<>() → Non Prim

Integer	String
Double	Character
Long	
Float	

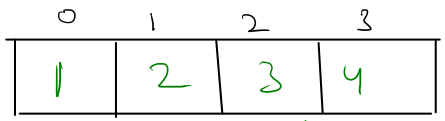


```
ArrayList<Integer> list = new ArrayList<>() // empty array list with no default capacity
```

Capacity

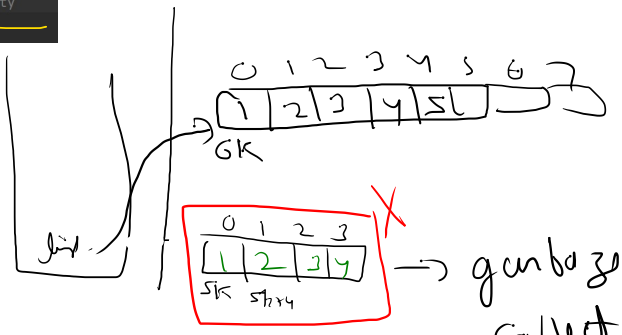
initialise → new int[4]

list =



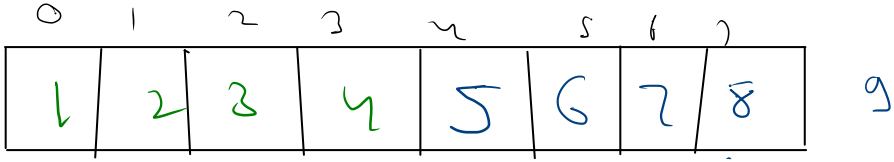
size = 4

make a new array of double size of prev array



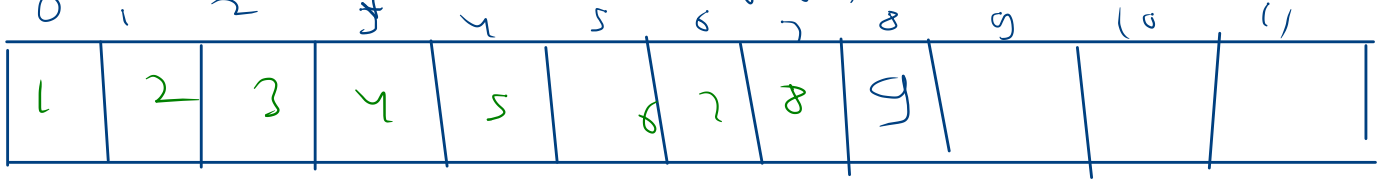
Rough diag

Copy values



size = 8

make a new double array

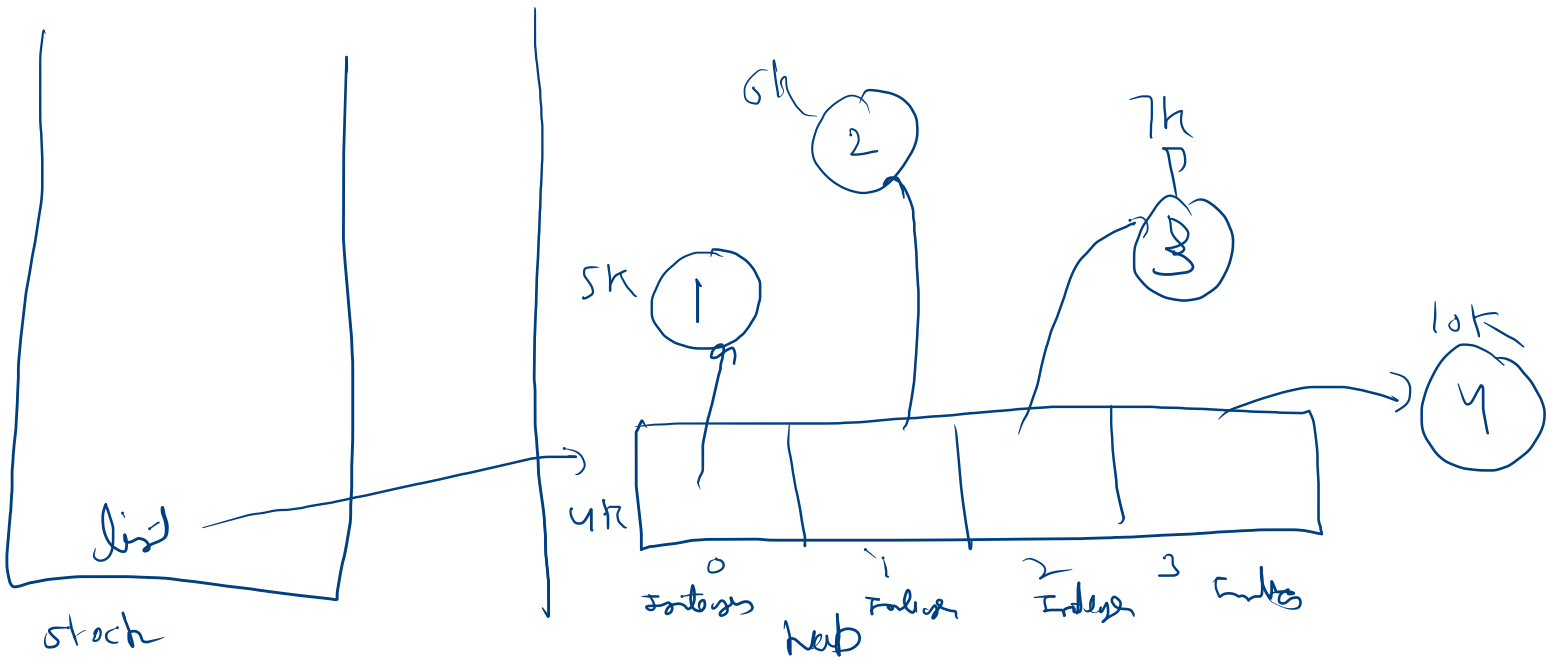


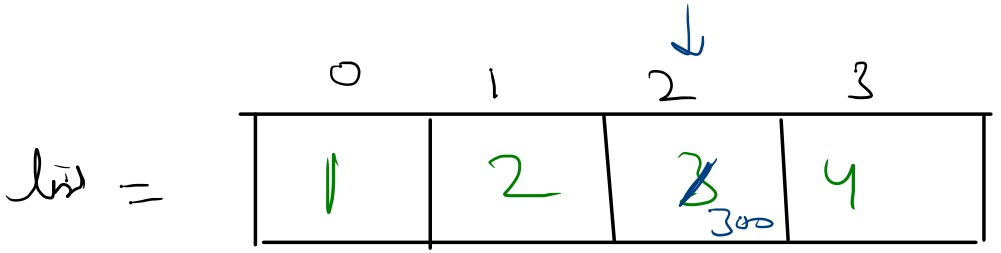
size = 16

Exact diag

lis =

0	1	2	3
1	2	3	4

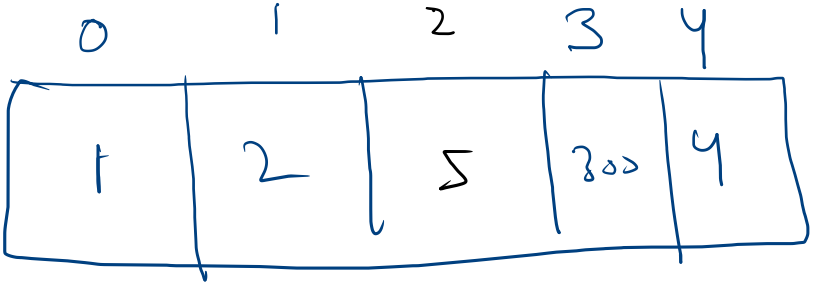




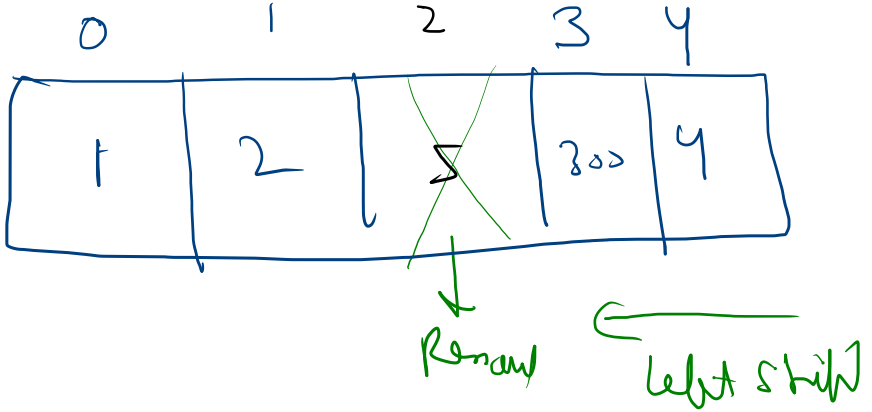
update

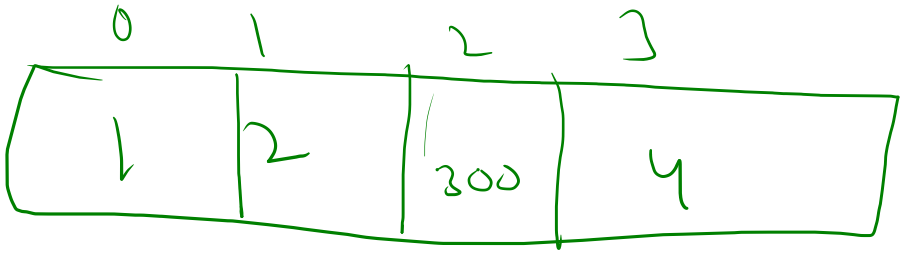
list.set(2, 300) → idx → updated value

add in between → 5 in idx = 2 Right Shift



Remove by idx

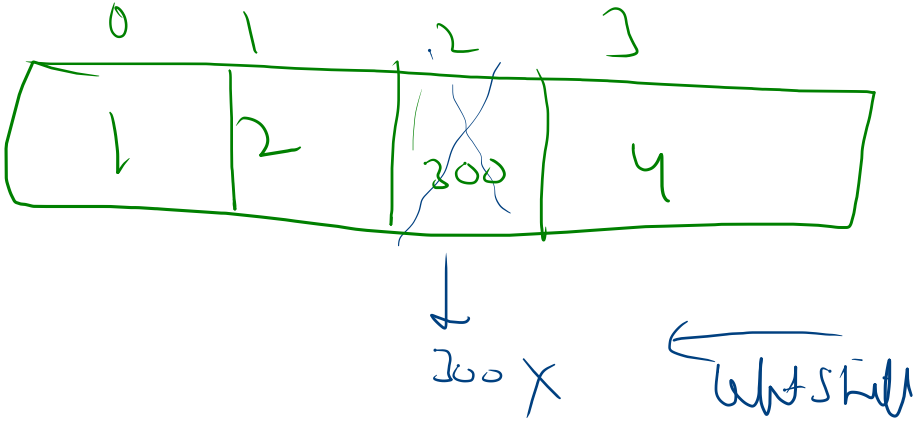




Remove

by

index



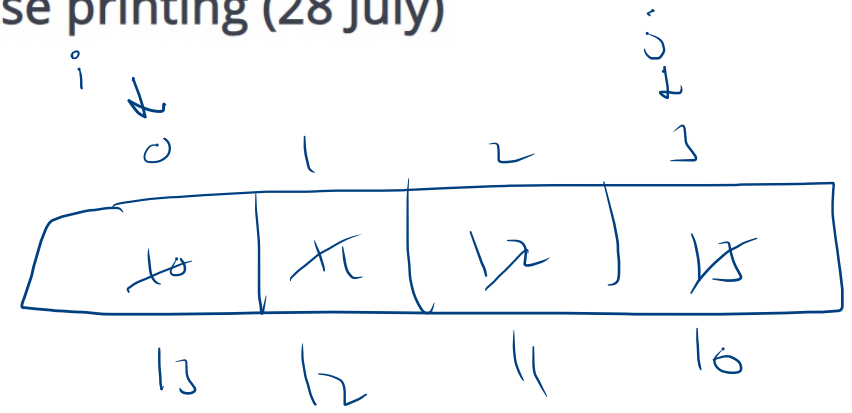
Create list by

Capacity

Create list by

another list

ArrayList reverse printing (28 July)



swap (i, j)