Python Libraries

Numpy

NPS : Net Promoter score.

Customer Sentiment

100 people

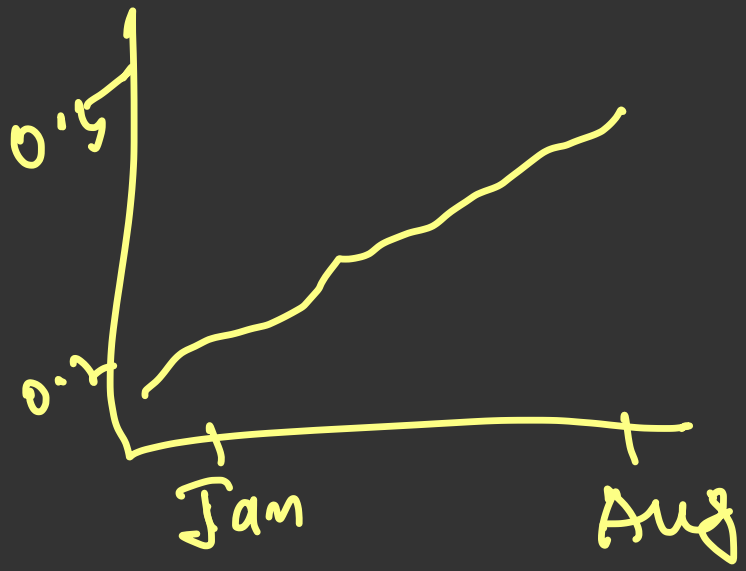
$$NPS = \left(\frac{40}{100}\right) - \left(\frac{20}{100}\right)$$

$$= 0.4 - 0.2$$

$$= 0.2$$ ← January

Feb, March .... August.

(0.5)



List	Numpy Array
① Heterogenous	① Homogenous
② Impl. done in Python. ↳ It is slower.	② Impl. done in C. ↳ It is faster.
③ More space	③ Less space

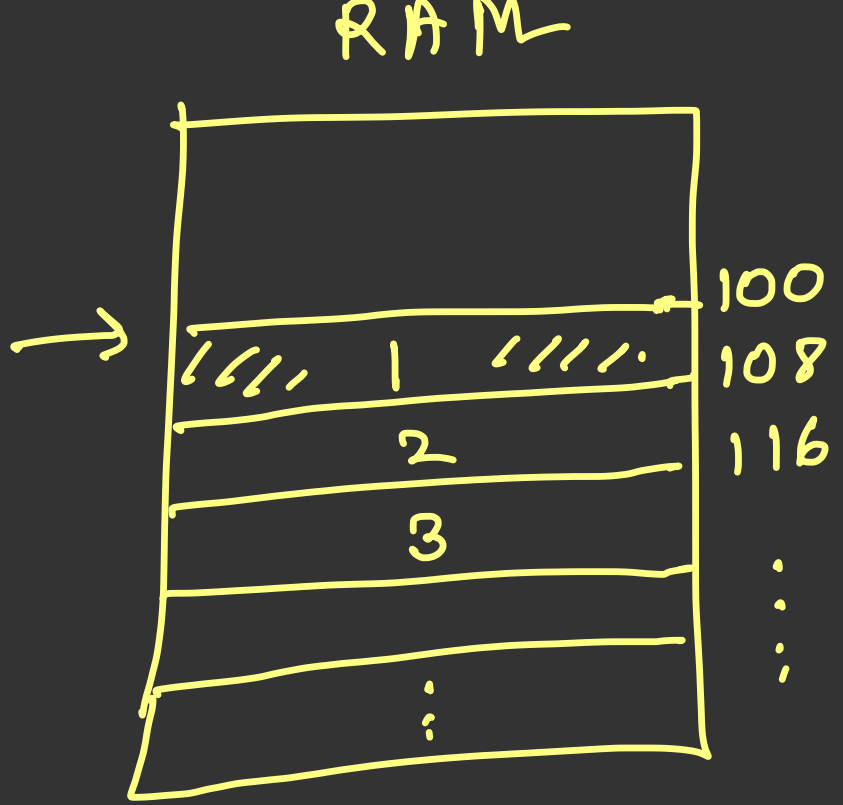
0 1 2

$a = [1, 2, 3]$

int → 8 B

int64

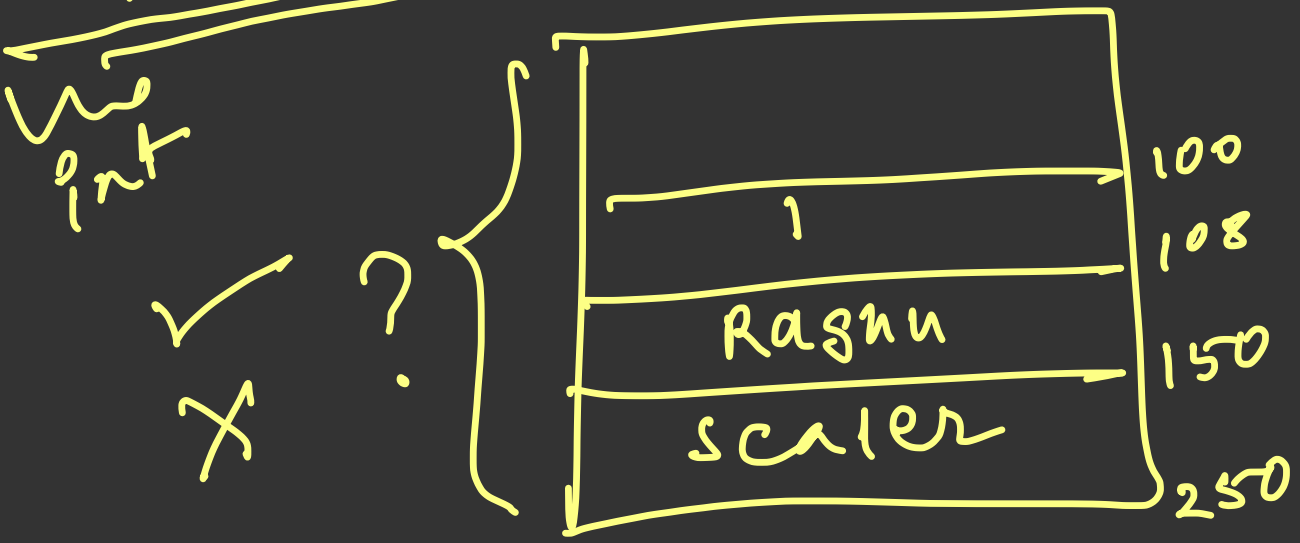
$a[1] = 2$



Heterogenous data

= [1, "Raghu", "Scaler"]

int str

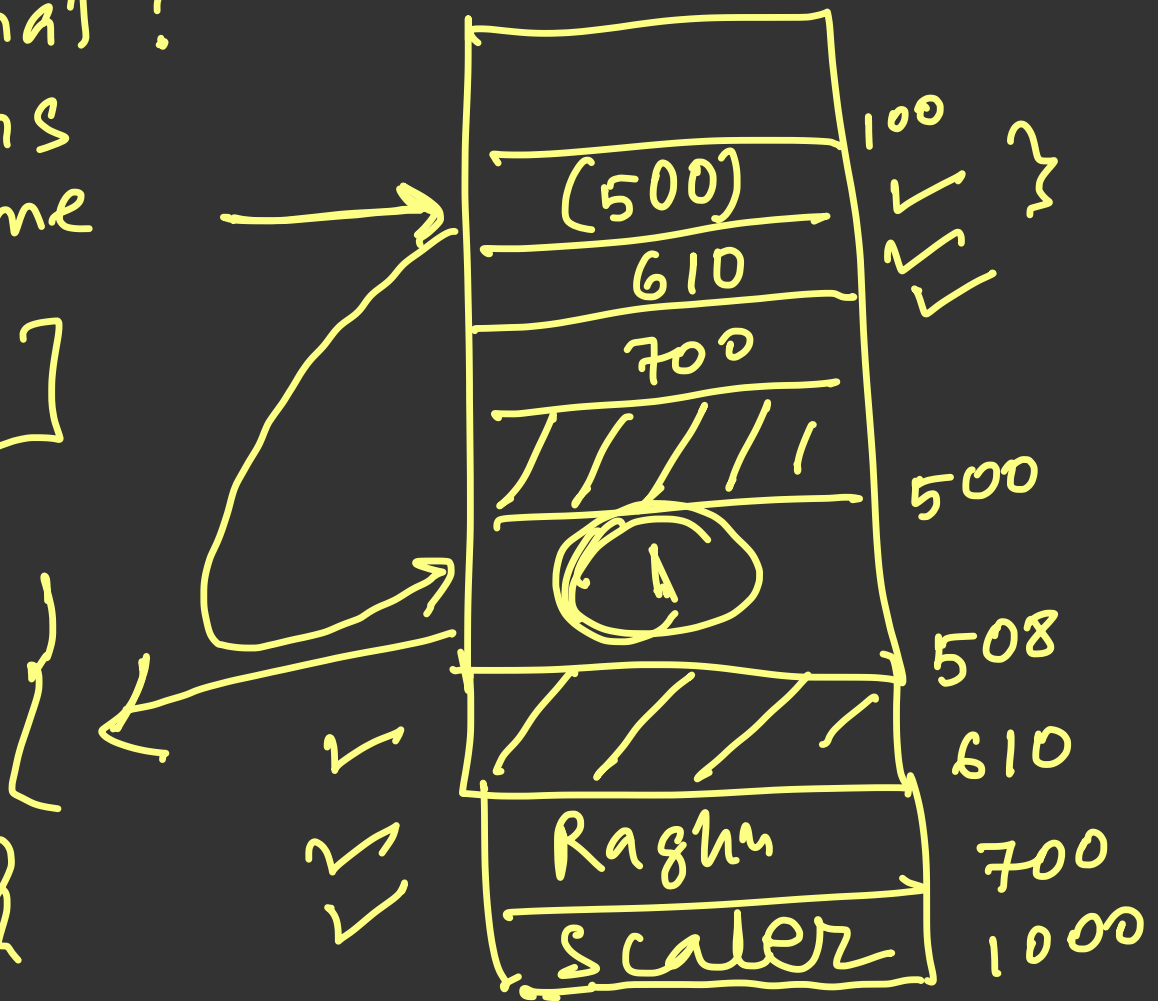


✓

?

X

Is it optimal ?
[in terms of time & space]



Numpy : Numerical Python

a = [1 , "Raghu" , "Scaler"]

str str str

str > Float > Int > Bool

a = [1, 2, 3, 4, 5]
int

b = [1, "Zaheer", "Scaler"]

List → Homogeneity (space & time optimal)
→ Heterogenity (space & time non-optimal)

Array → Homogeneous data

Heterogenous ⟹ Homogenous

Data

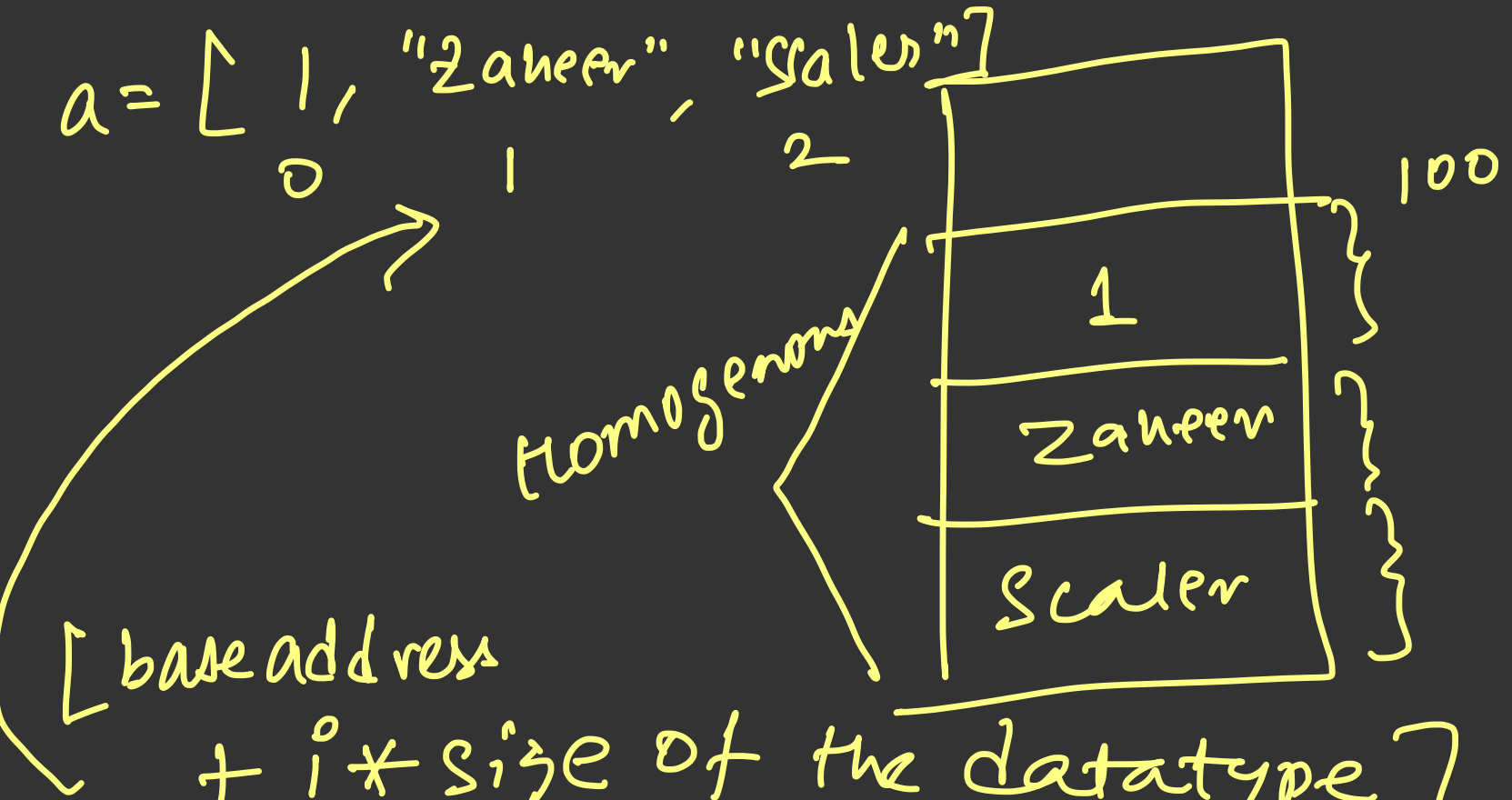
1 ⟹ String

String ⇒ String

Boolean ⇒ String

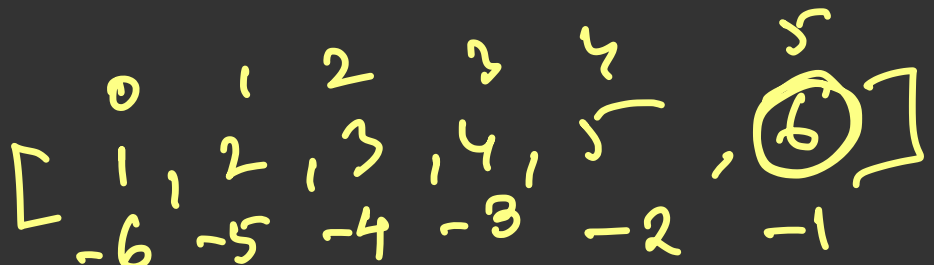
a = [1, "Zaheen", "Scaler"]

0 1 2



[base address + i * size of the datatype]

a[1] = Zaheen .


0 1 2 3 4 5
[1 , 2 , 3 , 4 , 5 , 6]
-6 -5 -4 -3 -2 -1

Thank you for attending the session ! :)