"Hello Everyone!"

lists — 1D

values $\longrightarrow$ 4, 4.5, "AJ", True

datatype   int   float   string   bool

variables $\longrightarrow$ a   b   c   d
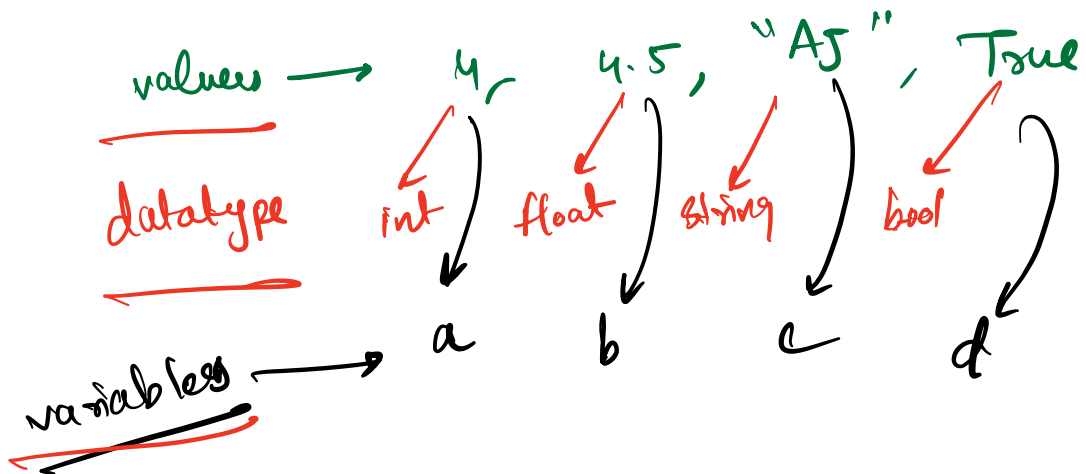
(Q)

① Write a program that stores all runs scored by _VK_ in all international matches.

② find out the
  a) min
  b) max
  c) avg

Played 500

runs1 ⟶ 50

runs2 ⟶ 48

runs3 ⟶ 102

⋮

runs500

500 veeriables would be tough to maintain.

* Collection of (data) → runs

→ Data structures

① Lists
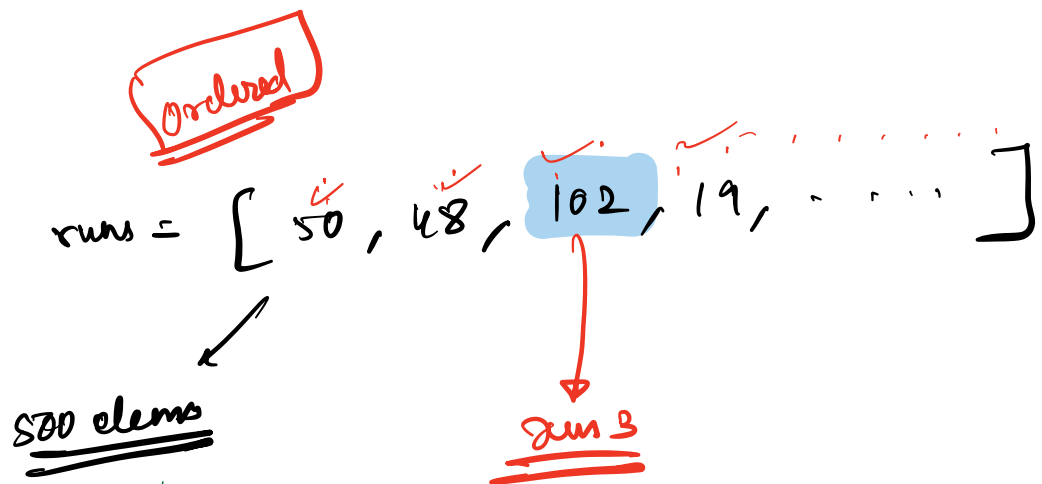   └→ ordered collection of data

$$a = 2$$

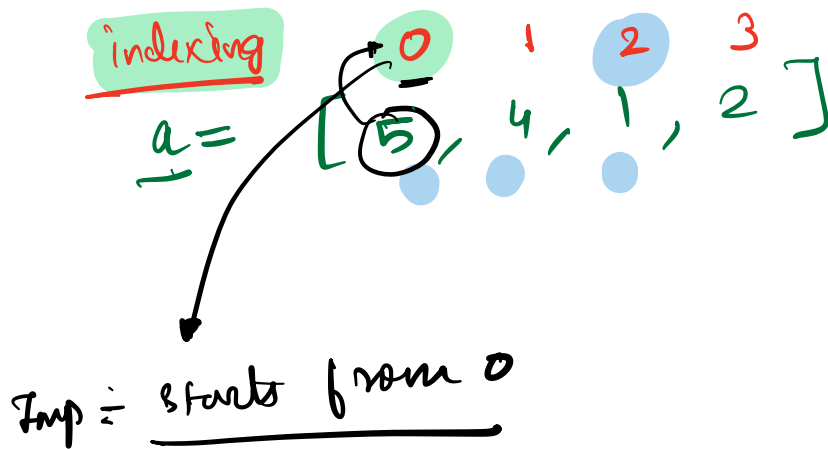* array → Stores elem of same datatype

$a = [4, 10, 15 \ldots \ldots]$

*Imp ? | Lists | → can store diff datatypes
as well

$b = [4, 4.5, \text{``AJ''}, True]$

4 elements.

Ordered

runs = [50, 48, 102, 19, ...]

500 elems

run 3

indexing ⟶ to access elements of a list.

indexing

a = [5, 4, 1, 2]

0 1 2 3

Imp := starts from 0

1st elem ⟶ 0

3rd elem ⟶ 2

$a[0] \longrightarrow 1^{st}$ elem

307th elem $\longrightarrow a[306]$

$n \longrightarrow$ elems

index

$1^{st} \longrightarrow 0$

$n^{th} \longrightarrow [n-1]$

* negative indexing

index $\longrightarrow$ 0   1   2   3   4

$a = [\;5\;, 3\;, 2\;, 1\;, 9\;]$

    -5   -4   -3   -2   -1   R

L

$a[0]$

OR $a[-5]$

$a[4]$

OR $a[-1]$

VR $\longrightarrow$ [0 1 499   ]
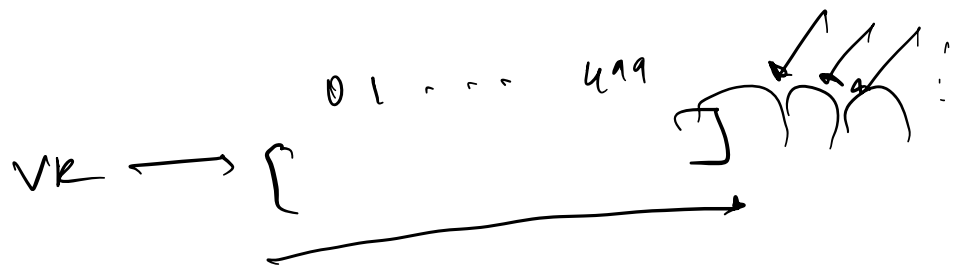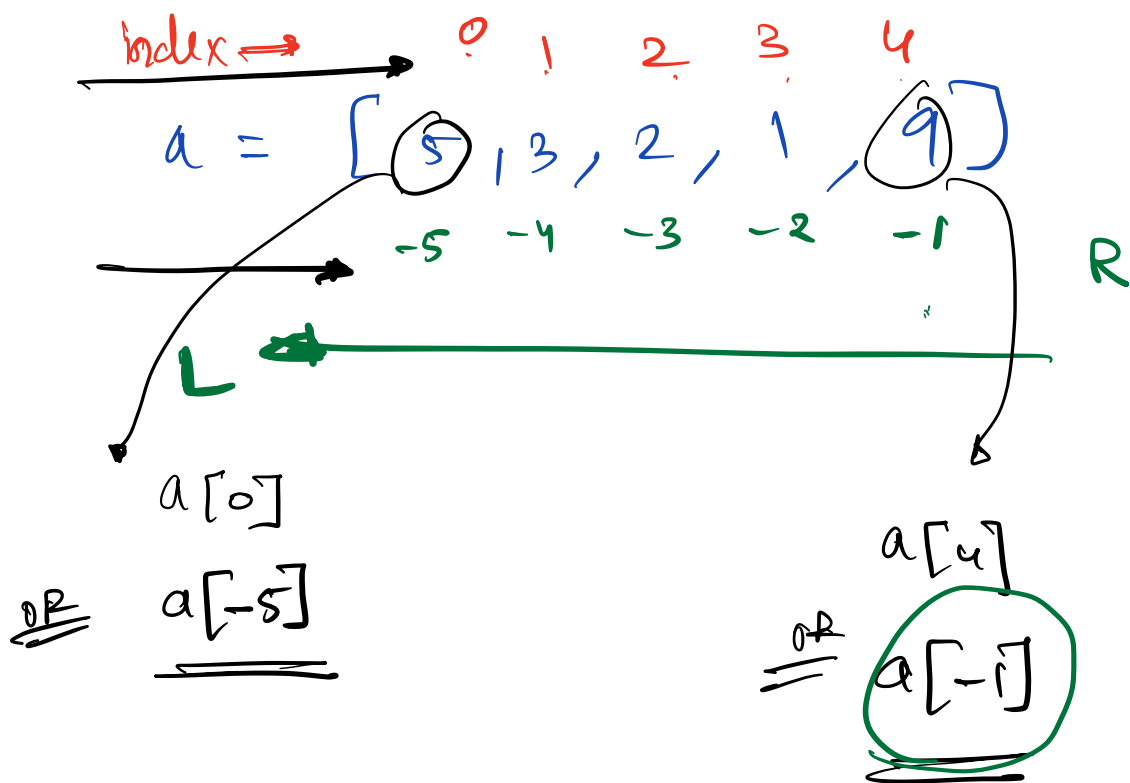
→ ✱ methods to add elements
to a list

① append()

② insert()

③ extend()

10 : 13 sharp

$$[\ 5 \ , \ 3 \ , \ 4 \ , \ 1 \ , \ 8 \ ]$$

0 1 2 3 4

$$3 + 1 \longrightarrow 4$$