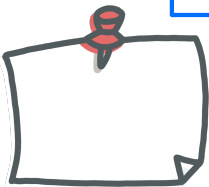


# Agenda

- ① Motivation behind Lists
- ② Initialize Lists
- ③ Indexing Lists
- ④ Common List Methods
- ⑤ Membership Operator
- ⑥ Iterating Over List
- ⑦ Taking List as input

## Motivation behind Lists



why do we need List?

We need store all the runs scored by Kohli and we want analyse:

- ① Max-run-scored
- ② Min-run-scored
- ③ Avg-runs
- ④ 50's and 100's runs

match1 = 55

match2 = 101

match3 = 6

"

"

match7 = 65

"

"

"

"

248 ⇒

Data-structure is collection of  
Data

① List

② Tuple

③ Dictionary

④ Sets

① What is a list?

List : Data-Structure

Ordered ✓

Dynamic ✓

Heterogeneous ✓

Mutable

# How do we create a list?

Empty list: `my-list = []`  
`my-list = list()`

List-with-data:

`my-list2 = [1, 'Hi', True]`

## Indexing

List 1  $\Rightarrow$  `[10, 20, 30, 15, 99, 101]`

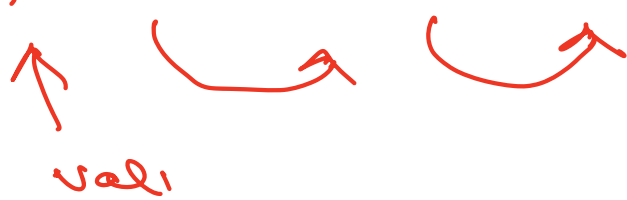
	↓	↓	↓	↓	↓	↓
Index $\Rightarrow$	0	1	2	3	4	5
	↓	↓	↓	↓	↓	↓
Negative Indexing $\Rightarrow$	-6	-5	-4	-3	-2	-1

List Methods

① `append`: adds element at end of list.

② `insert(index, value)`: Can be used to add elements at an POS

[ num1, num2, num3 ]



↑  
val1

o Replace : ?

list[index] = new-value

o Pop () o removes last element  
by default