

Python Lists are Containers to store a set of values of any data type.

Friends = ["Apple", "Akash", "Rehan", 7, false]

↓
std::string

↓
std::string

↓
std::string

↓
int

↓
bool

can store value of int or any datatype.

A list can be indexed just like a string

$$L_1 = [7, 9, \text{"Kaif"}]$$
$$\begin{bmatrix} 1 & 0 \end{bmatrix} \Rightarrow 7$$
$$L1[I] \Rightarrow 9$$
$$L1[70] \Rightarrow E8808.$$

$l2[0:2] \Rightarrow [7, 9] \Rightarrow$ ~~string~~ List slicing.

List methods

Consider the following list:

$$L2 = [1, 8, 7, 2, 22, 15]$$

- 1) `L1.sort()`; updates the list to `[1, 2, 7, 8, 15, 22]`
- 2) `L1.reverse()`; updates the list to `[25, 22, 2, 7, 8, 1]`
- 3) `L1.append(8)`; adds 8 at the end of the list.
- 4) `L1.insert(3, 8)`; This will add 8 at 3 index.
- 5) `L1.pop(2)`; will delete element at index 2 and return its value.
- 6) `L1.remove(21)`; will remove 21 from the list.

Tuples in Python

A tuple is an immutable data type in python.

↳ cannot change.

$a = () \Rightarrow$ Empty tuple

$a = (1,) \Rightarrow$ Tuple with only one element needs a comma.

$a = (1, 7, 2) \Rightarrow$ Tuple with more than one element.

once defined a tuple's element can't be altered or manipulated.

Tuple methods.

Consider the following tuple.

$a = (1, 7, 2)$

1) $a.count(1) = a.count(1)$ will return number of times 1 occurs in a .

2) $a.index(1)$: $a.index(1)$ will return the index of first occurrence of 1 in a .
