

* CHAPTER-4 : LISTS AND TUPLES

- Python lists are containers to store a set of values of any data type.

```
friends = ["Apple", "Shayan", 7, false]
```

str() int() bool()

can store values of any datatype

→ List Indexing.

A list can be indexed just like a string

```
L1 = [7, 9, "Shayan"]
```

`L1[0] ⇒ 7`

`L1[1] ⇒ 9`

`L1[70] ⇒ Error`

`L1[0:2] ⇒ [7, 9] ⇒ List slicing`

→ List Methods

Consider the following list:

```
L1 = [1, 8, 7, 2, 21, 15]
```

- 1) `L1.sort()`: updates the list to `[1, 2, 7, 8, 15, 21]`
- 2) `L1.reverse()`: updates to `[21, 15, 8, 7, 2, 1]`
- 3) `L1.append(8)`: adds 8 at the end of 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 in python is an immutable data type.
↳ Cannot change

`a = ()` ⇒ Empty Tuple

`a = (1,)` ⇒ Tuple with only one element needs a comma

`a = (1, 7, 2)` ⇒ 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)` : It will return number of times 1 occurs in a.

2% `a.index(1)` : It will return ~~number~~ index of first occurrence of 1 in a.