Chapter_4 lists & tuples

Python lists are container to store a set of values of any data type

Example ↘

```
A = ["apple" , "tipu", 0123, True ]
      ↙          ↘
    Str()      can store value of any
                     datatype
```

List indexing

A list can be indexed just like a string

```
     L1 = [ 0, 9, 8 "Tipu" ]
L1 [0]          =>   0
L1 [1]          =>   9
L1 [20]         =>   error
L1 [0:3]        =>   0, 8 →    list slicing
```

List methods

Consider the following list

```
L1 = [ 1. 2, 5, 6, 9, 10,0 ]
```

L1.sort()	→	updates the list to [0, 1, 2, 5, 6, 9, 10]
L1.revers()	→	updates the list to [0, 10, 9, 6, 5, 2,1]
L1.append	→	adds 10 at the end of the list
L1..insert(5,10)	→	this will add 10 at 5 index
L1.pop(2)	→	will delete element at index 2 and return its value
L1.remove(10)	→	will remove 10 from the list

Tuples in python

A tuple is a an immutable data type in python

```
              ↳ cannot change
a = ()            empty tuple
A = (1)           tuple with only on element need comma
A = (1, 6, 5, )   tuple with more than one element
once defined a tuple element can't be altered
Or manipulated
```

Tuple methods

Consider the following tuple

```
a = (1, 3, 5)
 a.count(1)       a.count(1) will return number of times 1
                  Occurs in a
 a.index(1)       a.index(1) will return the index of first
                  Occurrence of 1 in a
```