Chapter 4 - Lists and Tuples

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

```
friends = ["Apple", "Akash", "Rohan", 7, False]
```

"Apple" → str()
"Akash" → can store value of any datatype
7 → int()
False → bool()

List Indexing

A List can be indexed just like a String

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

```
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 the list to [15, 21, 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

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L1.pop()

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 = ( ) => 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 elements cant 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 occurence of 1 in a.