

V. What is Tuple? * Tuple vs List *

What is Tuple?

→ It is a ~~mutable~~ data structure (it cannot be changed)
immutable.

→ It has un-packing

Eg → `t = (1, 20, 3, 4)` in one line I can assign the value of the variables

How to use tuple

`t = 1,` is a tuple because of this comma

`t = (1,)` - It is also tuple because of comma
 coz. it is making the sequence

`t = (1, 2, 3, 4)`

`print(t[1])` `t[2] = 300 X`

→ 2 it cannot be done you cannot change

`print(t[0:2])` the values in tuple. Although you can do it in list.
↳ string feature

`t2 = ([1, 2, 3], 2, 3)` `t2[0].append(5)`

`print t2[0]` = `[1, 2, 3, 5]`

→ `[1, 2, 3]` ** Here `t2[0]` value is not a tuple. It is in the form of list therefore we can append new value into it.

**

`a, b, c = (20, 30, 40)` | `t3 = (20, 30, 40)`

`print(a, b, c)` | `print(t3)`

INPUT → 20 30 40 | (20, 30, 40)

↳ Here we are doing unpacking

* Tuple is efficient if you want to manage memory

DIY: Time difference between Tuple vs Lists.

import timeit

`print(timeit.timeit('x = (1, 2, 3, 4, 5)', number = 1000000))`

`print(timeit.timeit('x = [1, 2, 3, 4, 5]', number = 1000000))`