**39 – Tupla Documentação:**

<https://docs.python.org/3/library/stdtypes.html#tuples>

Tuples

Tuples are immutable sequences, typically used to store collections of heterogeneous data (such as the 2-tuples produced by the [enumerate()](https://docs.python.org/3/library/functions.html#enumerate) built-in). Tuples are also used for cases where an immutable sequence of homogeneous data is needed (such as allowing storage in a [set](https://docs.python.org/3/library/stdtypes.html#set) or [dict](https://docs.python.org/3/library/stdtypes.html#dict) instance).

*class***tuple**([*iterable*])

Tuples may be constructed in a number of ways:

* Using a pair of parentheses to denote the empty tuple: ()
* Using a trailing comma for a singleton tuple: a, or (a,)
* Separating items with commas: a, b, c or (a, b, c)
* Using the [tuple()](https://docs.python.org/3/library/stdtypes.html#tuple) built-in: tuple() or tuple(iterable)

The constructor builds a tuple whose items are the same and in the same order as *iterable*’s items. *iterable* may be either a sequence, a container that supports iteration, or an iterator object. If *iterable* is already a tuple, it is returned unchanged. For example, tuple('abc') returns ('a', 'b', 'c') and tuple( [1, 2, 3] ) returns (1, 2, 3). If no argument is given, the constructor creates a new empty tuple, ().

Note that it is actually the comma which makes a tuple, not the parentheses. The parentheses are optional, except in the empty tuple case, or when they are needed to avoid syntactic ambiguity. For example, f(a, b, c) is a function call with three arguments, while f((a, b, c)) is a function call with a 3-tuple as the sole argument.

Tuples implement all of the [common](https://docs.python.org/3/library/stdtypes.html#typesseq-common) sequence operations.

For heterogeneous collections of data where access by name is clearer than access by index, [collections.namedtuple()](https://docs.python.org/3/library/collections.html#collections.namedtuple) may be a more appropriate choice than a simple tuple object.