

Comprehensive List of

Tuple

Functions and Methods

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<https://chlorinexxe.github.io/portfolio>

Tuple

- Tuple is a collection of ordered and immutable items in python written in parentheses “()”
 - Immutable
 - Ordered
 - Indexed
 - Allows Duplicates
 - Written withing “()”

Creation

- `tuple()` : Creates an empty tuple or converts another iterable into a tuple
- `()` : The empty parentheses create an empty tuple
- `(item,)` : Creates a tuple with a single item

Manipulations

- `tuple.count()` : Returns the number of occurrences of item in the tuple
- `tuple.index()` : Returns the index of the first occurrence of item in the tuple
- `tuple+other_tuple` : Concatenates two tuples
- `tuple * n` : Creates a new tuple with n copies of the original tuple
- `len(tuple)` : Returns the number of items in the tuple
- `min(tuple)` : Returns the smallest item in the tuple
- `max(tuple)` : Returns the largest item in the tuple
- `sorted(tuple)` : Returns a sorted list of the tuple's elements
- `reversed(tuple)` : Returns a reversed tuple as iterator sequence

Accessing Elements

- `tuple[i]` : Returns the item at index `i`
- `tuple[start : end]` : Returns a slice of the tuple from index `start` to `end`
- `tuple[start : end :step]` : Returns a slice of the tuple from index `start` to `end-1` with a step of `step`

Iteration

- `for item in tuple:` : Iterates over each item in the tuple
- `enumerate(tuple)` : Returns an enumerate object, yielding pairs of an index and an element from the tuple
- `iter(obj)` : Returns an iterator object from a tuple.
- `zip(*iterables)` : Aggregates elements from multiple iterables into tuples.

Membership Test

- item in tuple : Returns True if item is present in the tuple, otherwise False
- item not in tuple : Returns True if item is not present in the tuple, otherwise False

Conversion

- `tuple(sequence)` : Converts seq into a tuple
- `str(tuple)` : Converts the tuple into a string representation
- `list(tuple)` : Converts the tuple into a list

Built-in Functions

- `sum(tuple)` : Returns the sum of all items in the tuple
- `all(tuple)` : Returns True if all items in the tuple are True
- `any(tuple)` : Returns True if any item in the tuple is True

Tuple Unpacking and Slice

- `a,b,c = (1,2,3)` : Allows assignment of tuple elements to multiple variable in a single statement
- `a=(1,2,3,4,5)`
`s=slice(1,4)`
`a[s] #output : (2,3,4)` : Creates a slice object used for slicing tuples. To create a subset of tuples

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