Tuple

A tuple is similar to the list in many ways. Like lists, tuples also contain the collection of the items of different data types. The items of the tuple are separated with a comma (,) and enclosed in parentheses (). A tuple is a read-only data structure as we can't modify the size and value of the items of a tuple.

| Example | Output |
|---|--|
| tuple = ('abc', 123, 'hi', 10.12, 10) | ('abc', 123, 'hi', 10.12, 10) |
| print tuple | abc |
| print tuple[0] | ('hi', 10.12) |
| <pre>print tuple[2:4] print tuple[3:]</pre> | (10.12, 10) |
| print tuple * 2 print tuple + tuple | ('abc', 123, 'hi', 10.12, 10, 'abc', 123, 'hi', 10.12, 10) |
| | ('abc', 123, 'hi', 10.12, 10, 'abc', 123, 'hi', 10.12, 10) |

Accessing Tuple

Accessing of tuple is prity easy, we can access tuple in the same way as List.

| Example | Output |
|------------------------------------|---------------|
| tuple = ('abc', 123, 'hi', 10.12, | abc |
| 10) | ('hi', 10.12) |
| print tuple[0] | (10.12, 10) |
| print tuple[2:4] | ('hi', 10.12) |
| print tuple[3:] | |

| Adding Tuples | |
|-----------------------------|----------------------------------|
| Tuple can be added by using | the concatenation operator(+) to |
| join two tuples. | |
| Example | Output |
| tuple = ('abc', 123) | ('abc', 123, 'hi', 10.12, 10) |
| tuple1 = ('hi', 10.12, 10) | |

Replicating Tuple

print tuple+tuple1

print tuple[-3:-1]

Replicating means repeating. It can be performed by using '*' operator by a specific number of time.

| operator by a specific number of time. | |
|--|--------------------------|
| Example | Output |
| tuple = ('abc', 123) | ('abc', 123, 'abc', 123) |
| print tuple*2 | |

Tuple Slicing

A subpart of a tuple can be retrieved on the basis of index. This subpart is known as tuple slice.

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|--|---------------|
| Example | Output |
| tuple = ('abc', 123, 'hi', 10.12, 10) | abc |
| print tuple[0] | ('hi', 10.12) |
| print tuple[2:4] | (10.12, 10) |
| print tuple[3:] | ('hi', 10.12) |
| print tuple[-3:-1] | |

Tuple Deleting

Deleting individual element from a tuple is not supported. However the whole of the tuple can be deleted using the del statement.

| Example | Output |
|--|-------------------------------|
| tuple = ('abc', 123, 'hi', 10.12, 10) | ('abc', 123, 'hi', 10.12, 10) |
| print tuple | <type 'tuple'=""></type> |
| del tuple | |
| print tuple | |

min(tuple) Method

This method is used to get min value from the sequence of tuple.

| Example | Output |
|--|--------|
| tuple = ('abc', 123, 'hi', 10.12, 10) | 10 |
| print min(tuple) | |

max(tuple) Method

This method is used to get max value from the sequence of tuple.

| Example | Output |
|---------------------------|--------|
| tuple = (123, 10.12, 10) | 123 |
| print max(tuple) | |

len(tuple) Method

This method is used to get length of the tuple.

| Example | Output |
|---------------------------|--------|
| tuple = (123, 10.12, 10) | 3 |
| print len(tuple) | |

cmp(tuple1,tuple2) Method

This method is used to compare tuples.

| Example | Output |
|------------------------------|--------|
| tuple = (123 , 10.12 , 10) | 1 |
| tuple $1 = (1, 2, 3)$ | -1 |
| print cmp(tuple,tuple1) | |
| print cmp(tuple1,tuple) | |