

Tuples in Python

Presented by Anshu

Assistant Prof.

Department of Computer Science

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Tuples

Lists can be of different types . It can be of integer or string or float .Now we have another type like tuple.

So tuples is almost same as list . The difference is that in list we can change values because list is mutable and tuple is immutable that means you cannot change values.

By default square bracket[] means list. So here we use round bracket means it's a tuple.

We can define tuples this way also--

TUPLES

Tuple is a data structure in Python. It is another sequence data type that is similar to List. A Tuple consists of a number of values separated by commas. Unlike lists, however, tuples are enclosed within parentheses. The values that make up a tuple are called its elements. Elements in a tuple need not be of the same type, they can be heterogeneous, i.e. of different data types. The elements in a tuple are addressed using their index values. The index value of a tuple starts with 0.

The main difference between lists and tuples are:

Lists are enclosed within [], and their elements and size can be changed, while tuples are enclosed within parentheses() and cannot be updated. Tuples are read-only lists.

TUPLES FUCTIONS:

Being immutable in nature unlike lists ,tuples do not support methods such as `append()`,`extend()`,`remove()`,`insert()` and `pop()` since all these operations require modifications to be made on a tuple which is not permitted.

However ,tuples work well with several in-built methods which are as follows:

- ❑ `len()`

- ❑ `count()`

- ❑ `any()`

- ❑ `min()`

- ❑ `max()`

- ❑ `sorted()`

- ❑ `index()`

For example ---

```
>>> tup=(2,36,4,25) // once you specify  
                        value you cannot  
                        change the value
```

Now lets try

```
>>>tup[1]  
36      // when you fetch value you  
         use square bracket. Its work
```

```
>>>tup[1] = 33
```

type Error tuple object does not support item assignment.

Uses of tuples

In certain project we don't want to change the value. There we can use tuple.

Iteration in tuple is faster than list. So we can use tuple if we want to enhance their speed of your execution.