**Python Tuple**

A tuple is a collection similar to a [Python list](https://www.programiz.com/python-programming/list). The primary difference is that we cannot modify a tuple once it is created.

**Create a Python Tuple**

We create a tuple by placing items inside parentheses (). For example,

numbers = (1, 2, -5)

print(numbers)

# Output: (1, 2, -5)

[Run Code](https://www.programiz.com/python-programming/online-compiler)

**More on Tuple Creation**

Create a Tuple Using tuple() Constructor

Different Types of Python Tuples

**Tuple Characteristics**

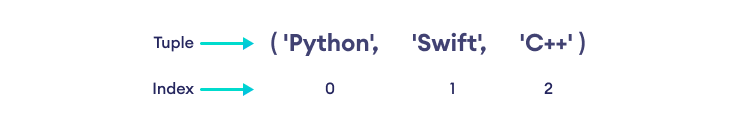
Tuples are:

* **Ordered** - They maintain the order of elements.
* **Immutable** - They cannot be changed after creation.
* **Allow duplicates** - They can contain duplicate values.

**Access Tuple Items**

Each item in a tuple is associated with a number, known as a **index**.

The index always starts from **0**, meaning the first item of a tuple is at index **0**, the second item is at index **1,** and so on.

Index of Tuple Item

**Access Items Using Index**

We use index numbers to access tuple items. For example,

languages = ('Python', 'Swift', 'C++')

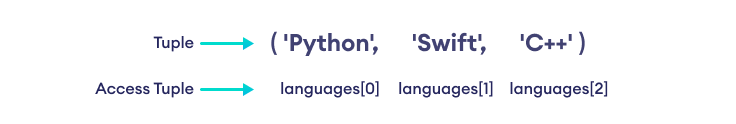
# access the first item

print(languages[0]) # Python

# access the third item

print(languages[2]) # C++

[Run Code](https://www.programiz.com/python-programming/online-compiler)

Access Tuple Items

**Tuple Cannot be Modified**

Python tuples are immutable (unchangeable). We cannot add, change, or delete items of a tuple.

If we try to modify a tuple, we will get an error. For example,

cars = ('BMW', 'Tesla', 'Ford', 'Toyota')

# trying to modify a tuple

cars[0] = 'Nissan' # error

print(cars)

[Run Code](https://www.programiz.com/python-programming/online-compiler)

**Python Tuple Length**

We use the [len()](https://www.programiz.com/python-programming/methods/built-in/len) function to find the number of items present in a tuple. For example,

cars = ('BMW', 'Tesla', 'Ford', 'Toyota')

print('Total Items:', len(cars))

# Output: Total Items: 4

[Run Code](https://www.programiz.com/python-programming/online-compiler)

**Iterate Through a Tuple**

We use the [for loop](https://www.programiz.com/python-programming/for-loop) to iterate over the items of a tuple. For example,

fruits = ('apple','banana','orange')

# iterate through the tuple

for fruit in fruits:

print(fruit)

[Run Code](https://www.programiz.com/python-programming/online-compiler)

**Output**

apple

banana

orange

**More on Python Tuple**

Check if an Item Exists in the Tuple

Change Tuple Items

Delete Tuples

Create a Python Tuple With One Item