

# Python Tuple

Python Tuple is used to store the sequence of immutable python objects. Tuple is similar to lists since the value of the items stored in the list can be changed whereas the tuple is immutable and the value of the items stored in the tuple can't not be changed.

A tuple can be written as the collection of comma-separated values enclosed with the small brackets. A tuple can be defined as follows.

```
T1 = (101, "Ravi", 2+3j)
```

```
T2 = ("Mona", "Mishra", [2, 4, 5])
```

An empty tuple can be written as follows.

```
T = ()
```

```
T = tuple()
```

The tuple having a single value must include a comma as given below.

```
T = (9,)
```

```
T = 9,
```

1. Write a Python program to create a tuple.
2. Write a Python program to create a tuple with different data types.

- 3.** Write a Python program to create a tuple with numbers and print one item.
- 4.** Write a Python program to unpack a tuple in several variables.
- 5.** Write a Python program to add an item in a tuple.
- 6.** Write a Python program to convert a tuple to a string.
- 7.** Write a Python program to get the 4th element and 4th element from last of a tuple.
- 8.** Write a Python program to create the colon of a tuple.
- 9.** Write a Python program to find the repeated items of a tuple.
- 10.** Write a Python program to check whether an element exists within a tuple.
- 11.** Write a Python program to convert a list to a tuple.
- 12.** Write a Python program to remove an item from a tuple.
- 13.** Write a Python program to slice a tuple.

**14.** Write a Python program to find the index of an item of a tuple.

**15.** Write a Python program to find the length of a tuple.

**16.** Write a Python program to convert a tuple to a dictionary.

**17.** Write a Python program to unzip a list of tuples into individual lists.

**18.** Write a Python program to reverse a tuple.

**19.** Write a Python program to convert a list of tuples into a dictionary.

**20.** Write a Python program to print a tuple with string formatting.

Sample tuple : (100, 200, 300)

Output : This is a tuple (100, 200, 300)

**21.** Write a Python program to replace last value of tuples in a list.

Sample list: [(10, 20, 40), (40, 50, 60), (70, 80, 90)]

Expected Output: [(10, 20, 100), (40, 50, 100), (70, 80, 100)]

**22.** Write a Python program to remove an empty tuple(s) from a list of tuples.

Sample data: [(), (), ('), ('a', 'b'), ('a', 'b', 'c'), ('d')]

Expected output: [('), ('a', 'b'), ('a', 'b', 'c'), 'd']

**23.** Write a Python program to sort a tuple by its float element.

Sample data: [('item1', '12.20'), ('item2', '15.10'), ('item3', '24.5')]

Expected Output: [('item3', '24.5'), ('item2', '15.10'), ('item1', '12.20')]

**24.** Write a Python program to count the elements in a list until an element is a tuple.