

```
In [1]: tup1=()
```

```
In [2]: tup2=(10,20,30)
```

```
In [3]: tup3=(21.90,928.87,76.23)
```

```
In [4]: tup4=("one", "two", "three")
```

```
In [5]: tup5=(1,21.54,"Rohit", (21,45))
```

```
In [6]: tup6=("Rohit",12,34.56,[23,34],{"Ere","Two"})
```

```
In [7]: len(tup6)
```

```
Out[7]: 5
```

Tuple Indexing

```
In [9]: tup3[0]
```

```
Out[9]: 21.9
```

```
In [10]: tup4[0]
```

```
Out[10]: 'one'
```

```
In [12]: tup4[0][0] # it access the first charcter of the first tuple element
```

```
Out[12]: 'o'
```

```
In [13]: tup4[-1]
```

```
Out[13]: 'three'
```

Tuple Slicing

```
In [14]: Tuple = (123,537872,76327817,76,627,837,7362,7777,8888)
```

```
In [15]: Tuple[0:3]
```

```
Out[15]: (123, 537872, 76327817)
```

```
In [16]: Tuple[2:4]
```

```
Out[16]: (76327817, 76)
```

```
In [17]: Tuple[:4]
```

Out[17]: (123, 537872, 76327817, 76)

In [18]: `Tuple[2:]`

Out[18]: (76327817, 76, 627, 837, 7362, 7777, 8888)

In [19]: `Tuple[-2:]`

Out[19]: (7777, 8888)

In [20]: `Tuple[:-3]`

Out[20]: (123, 537872, 76327817, 76, 627, 837)

In [22]: `Tuple[:]`

Out[22]: (123, 537872, 76327817, 76, 627, 837, 7362, 7777, 8888)

Remove and change Items

In [23]: `Tuple`

Out[23]: (123, 537872, 76327817, 76, 627, 837, 7362, 7777, 8888)

In [25]: `del Tuple[0] # Tuple are immutable which mean we cannot delete tuple items`

```
-----
TypeError                                Traceback (most recent call last)
Cell In[25], line 1
----> 1 del Tuple[0]
```

TypeError: 'tuple' object doesn't support item deletion

In [26]: `Tuple[0] = 1# Tuple are immutable which ,ean we cannot chnage`

```
-----
TypeError                                Traceback (most recent call last)
Cell In[26], line 1
----> 1 Tuple[0] = 1
```

TypeError: 'tuple' object does not support item assignment

In [27]: `del Tuple`

In [28]: `Tuple`

```
-----
NameError                                Traceback (most recent call last)
Cell In[28], line 1
----> 1 Tuple
```

NameError: name 'Tuple' is not defined

Loop through a tuple

```
In [43]: mytuple=('one','two','three','four','five','six','seven','eight')
```

```
In [30]: for i in mytuple:
          print(i)
```

```
one
two
three
four
five
six
seven
eight
```

```
In [31]: for i in enumerate(mytuple):
          print(i)
```

```
(0, 'one')
(1, 'two')
(2, 'three')
(3, 'four')
(4, 'five')
(5, 'six')
(6, 'seven')
(7, 'eight')
```

Multi Membership

```
In [32]: mytuple
```

```
Out[32]: ('one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight')
```

```
In [33]: 'one' in mytuple # Check one is exest in the List
```

```
Out[33]: True
```

```
In [34]: 'tem' in mytuple
```

```
Out[34]: False
```

```
In [35]: if "three" in mytuple:
          print("Its present")
          else:
            print("Its not present in the tuple")
```

```
Its present
```

```
In [36]: if "Eleven" in mytuple:
          print("Its present")
          else:
```

```
print("Its not present in the tuple")
```

Its not present in the tuple

Index Position

```
In [37]: mytuple
```

```
Out[37]: ('one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight')
```

```
In [38]: mytuple.index("one")
```

```
Out[38]: 0
```

```
In [39]: mytuple.index('five')
```

```
Out[39]: 4
```

sorting

```
In [44]: mytuple4 = (123,234,746,738,99,76)
```

```
In [48]: sorted(mytuple4)
```

```
Out[48]: [76, 99, 123, 234, 738, 746]
```

```
In [49]: sorted(mytuple4,reverse = True)
```

```
Out[49]: [746, 738, 234, 123, 99, 76]
```

```
In [ ]:
```