Tuple Creation

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

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

In [3]:
```
tup3 =(10.77, 30.66, 60.89)
```

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

In [5]:
```
tup5 = ('nilu', 25,(50, 100),(150,90))
```

In [6]:
```
tup6 = (100, 'nilu', 17.765)
```

In [7]:
```
tup7 = ('nilu',25,[50,100],[150,90],{'san','sanku'},(99,22,33))
```

In [8]:
```
len(tup7)
```

Out[8]: 6

Tuple indexing

In [9]:
```
tup2[0]
```

Out[9]: 10

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

Out[10]: 'one'

In [11]:
```
tup4[0][0]
```

Out[11]: 'o'

In [12]:
```
tup4[-1]
```

Out[12]: 'three'

In [13]:
```
tup5[-1]
```

Out[13]: (150, 90)

Tuple Slicing

In [92]:
```
mytuple = ('one', 'two', 'three', 'four', 'five', 'six', 'seven','eight')
```

In [93]:
```
mytuple[0:3]
```

Out[93]: ('one', 'two', 'three')

In [94]:
```
mytuple[2:5]
```

Out[94]: ('three', 'four', 'five')

In [95]:
```
mytuple[:3]
```

Out[95]: ('one', 'two', 'three')

In [96]:
```
mytuple[:2]
```

Out[96]: ('one', 'two')

In [97]:
```
mytuple[-3:]
```

Out[97]: ('six', 'seven', 'eight')

In [98]:
```
mytuple[-2:]
```

Out[98]: ('seven', 'eight')

In [99]:
```
mytuple[-1]
```

Out[99]: 'eight'

In [100…
```
mytuple[:]
```

Out[100… ('one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight')

Remove & change Items

In [101…
```
mytuple
```

Out[101… ('one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight')

In [117…
```
del mytuple[0]
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[117], line 1
----> 1 del mytuple[0]

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

In [119…
```
mytuple[0] = 1
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[119], line 1
----> 1 mytuple[0] = 1

TypeError: 'tuple' object does not support item assignment
```

In [120…
```
del mytuple
```

Loop through a tuple

In [122…
```
mytuple = ('one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight')
```

In [123…
```
for i in mytuple:
    print(i)
```

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

In [124…
```
for i in enumerate(mytuple):
    print(i)
```

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

tuple Membership

In [125…
```
mytuple
```

Out[125… ('one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight')

In [126…
```
'one' in mytuple
```

Out[126… True

In [127…
```
'ten' in mytuple
```

Out[127… False

In [128…
```
if 'three' in mytuple:
    print('Three is present in the tuple')
else:
    print('three is not present in the tuple')
```

```
Three is present in the tuple
```

In [129…
```
if 'eleven' in mytuple:
    print('eleven is present in the tuple')
else:
    print('eleven is not present in the tuple')
```

```
eleven is not present in the tuple
```

Index Position

In [130…
```
mytuple
```

Out[130…
```
('one', 'two', 'three', 'four', 'five', 'six', 'seven', 'eight')
```

In [131…
```
mytuple.index('one')
```

Out[131…
```
0
```

In [132…
```
mytuple.index('five')
```

Out[132…
```
4
```

In [133…
```
mytuple1 = ('one', 'two','three', 'four','one', 'one','two','three')
```

In [134…
```
mytuple.index('one')
```

Out[134…
```
0
```

Sorting

In [135…
```
mytuple2 = (43, 67, 99, 12, 6, 90, 67)
```

In [136…
```
sorted(mytuple2)
```

Out[136…
```
[6, 12, 43, 67, 67, 90, 99]
```

In [137…
```
sorted(mytuple2, reverse=True)
```

Out[137…
```
[99, 90, 67, 67, 43, 12, 6]
```