

Tuples In Python

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In [7]: tup=(12,36,70,46,"Python is a dynamic programming language")

In [8]: type(tup)

Out[8]: tuple

Note 1: In Tuple parenthesis are optional

In [9]: tup=12,36,70,46,"Python is a dynamic programming language"

In [10]: print(tup)

(12, 36, 70, 46, 'Python is a dynamic programming language')

Tuples are immutable

In [11]: tup=12,24,36,48,60,59.5,82.9,"Hello world"

In [12]: tup[1]=25

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TypeError                                Traceback (most recent call last)
<ipython-input-12-8f1ddc1b0c4c> in <module>
----> 1 tup[1]=25

TypeError: 'tuple' object does not support item assignment

List are mutable

In [13]: List= [23,42,54,67,82,94,62]

In [14]: List[3]=26

In [15]: print(List)

[23, 42, 54, 26, 82, 94, 62]

Note 2: We can use comma with single value

In [16]: var=(9)

In [17]: type(var)

Out[17]: int

In [18]: var=(9,)

In [19]: type(var)

Out[19]: tuple

Note 3:Tuples are immutable in nature, a nested object can be changed

In [20]: tup=12,36,70,46,[2,4,6,8,10,12]

In [21]: tup[4][2]=16

In [22]: print(tup)

(12, 36, 70, 46, [2, 4, 16, 8, 10, 12])

Note 4: String and Tuple uses sorted() method

In [23]: nums=(12,12.5,38,24,24.5,36,36.5,48,48.5)

In [24]: nums.sort()

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AttributeError                                Traceback (most recent call last)
<ipython-input-24-67d6476de4e1> in <module>
----> 1 nums.sort()

AttributeError: 'tuple' object has no attribute 'sort'

In [25]: sorted(nums)

Out[25]: [12, 12.5, 24, 24.5, 36, 36.5, 38, 48, 48.5]

Note 5: We can't use list method in tuples because tuples are immutable in nature

In [26]: # Insert

tup= (12,36,8,9,3,7,58)

In [27]: tup.insert(3,18)

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AttributeError                                Traceback (most recent call last)
<ipython-input-27-eb987582fcc5> in <module>
----> 1 tup.insert(3,18)

AttributeError: 'tuple' object has no attribute 'insert'

In [28]: print(tup)

(12, 36, 8, 9, 3, 7, 58)

Note 6: Operations in Tuple

In [29]: #Concatenate

tup1=(3,6,9,8,10,5)
tup2=('Three','Six','Nine','Eight','Ten','Five')

In [30]: tup3=tup1+tup2
print(tup3)

(3, 6, 9, 8, 10, 5, 'Three', 'Six', 'Nine', 'Eight', 'Ten', 'Five')

In [31]: #Length

len(tup3)

Out[31]: 12

In [32]: #Repetition

nums=5,10,14,20

In [33]: nums*3

Out[33]: (5, 10, 14, 20, 5, 10, 14, 20, 5, 10, 14, 20)

In [34]: #Membership

10 in(5,10,14,20)

Out[34]: True

In [35]: #Slicing

tup=("Learn","Python","With","Sudhanshi",12,36,70,46)
tup[4:]
tup[:-4]

Out[35]: ('Learn', 'Python', 'With', 'Sudhanshi')

In [36]: #Delete
del(tup)
print(tup)

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NameError                                Traceback (most recent call last)
<ipython-input-36-c3013e7fb0cd> in <module>
      1 #Delete
      2 del(tup)
----> 3 print(tup)

NameError: name 'tup' is not defined

In [ ]:
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