Tuple

September 25, 2023

1 Empty Tuple

```
[1]: t=tuple()
     print(t)
```

```
()
```

2 tuple with 1 Element

```
[6]: a=(10,)
     b=(10)
     print(a)
     print(type(a))
     print(b)
     print(type(b))
```

```
(10,)
<class 'tuple'>
10
<class 'int'>
```

3 type()

```
[12]: t=(1,2,3,'hello')
      print(t)
      print(type(t))
```

```
(1, 2, 3, 'hello')
<class 'tuple'>
```

4 nested tuple

```
[13]: t=((2,3),(1,4),(8,10))
      print(t)
```

```
((2, 3), (1, 4), (8, 10))
```

5 indexing

```
[8]: a=('p','y','t','h','o','n')
     print(a[2])
     # using negative index
     print(a[-3])
```

```
t
h
```

6 slicing

```
[24]: a=('p', 'y', 't', 'h', 'o', 'n', 'p', 'r', 'o', 'g', 'r', 'a', 'm', 'm', 'i',␣
      ↪'n', 'g')
      print(len(a))
      print(a[:])
      print(a[15:])
      print(a[:-15])
      print(a[1:4])
```

```
17
('p', 'y', 't', 'h', 'o', 'n', 'p', 'r', 'o', 'g', 'r', 'a', 'm', 'm', 'i', 'n',
'g')
('n', 'g')
('p', 'y')
('y', 't', 'h')
```

```
[37]: a=('p', 'y', 't', 'h', 'o', 'n', 'p', 'r', 'o', 'g', 'r', 'a', 'm', 'm', 'i',␣
      ↪'n', 'g')
      print(a[-5:])
      print(a[:12:-1])
      print(a[5:1:-1])
      print(a[-11:])
      print(a[-11:-4])
```

```
('m', 'm', 'i', 'n', 'g')
('g', 'n', 'i', 'm')
```

```
('n', 'o', 'h', 't')
('p', 'y', 't', 'h', 'o', 'n')
('p', 'r', 'o', 'g', 'r', 'a', 'm')
```

7 Deletion Error

```
[54]: a=(1,25,74,46)
      #del a[2]
      del a
      print(a)
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[54], line 4
      2 #del a[2]
      3 del a
----> 4 print(a)

NameError: name 'a' is not defined
```

8 Tuple methods

8.0.1 count()

```
[27]: a=('p', 'y', 't', 'h', 'o', 'n', 'p', 'r', 'o', 'g', 'r', 'a', 'm', 'm', 'i',␣
      ↪'n', 'g')
      print(a.count('p'))
      print(a.count('g'))
```

```
2
2
```

8.0.2 index()

```
[56]: a=('m', 'i', 's', 's', 'i', 's', 's', 'i', 'p', 'p', 'i')
      print(a.index('s'))
      print(tuple(sorted(a)))
```

```
2
('i', 'i', 'i', 'i', 'm', 'p', 'p', 's', 's', 's', 's')
```

9 iterating tuple

```
[55]: t=('os','python','and','se')
      for i in t:
          print(i)
```

```
os
python
and
se
```

```
[ ]:
```