

01/11/23

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* $a = 10$
↑
Variable Value

* Tuple ()

⇒ immutable

* items (or) elements

Ex: $x = (1, 2, 3)$

$y = (1, "Hello", 12.3)$

print(x)

>>> (1, 2, 3)

print(min(x))

print(max(x))

Creating tuple

#1 $\Rightarrow x = \text{tuple}()$

#2 $\Rightarrow x = ('a')$

#3 $\Rightarrow x = \text{tuple}('python')$

print(x)

>>> ()

print(x)

>>> ('a')

print(x)

>>> ('p', 'y', 't', 'h', 'o', 'n')

* Operations

[] \rightarrow index operator

print(x[0])

>>> ('p')

[:] \rightarrow slice of operator

[start : end]

\hookrightarrow end - 1

x[1:4]

print(x[2:])

print(x[:3])

print(x[2:])

print(x[-2:])

x[0] = 'L' # Error

y = 'L' + x[1:]

Program.

1

print (T)

T = (1, 2, 3)

2

print (T)

T = (1, "hello", 3.4)

3

print (T)

nested tuple

T = ("mouse", [8, 4, 6], (1, 2, 3))

4

print (T)

T = ('P', 'Y', 'T', 'H', 'O', 'N', 'P', 'Y', 'T', 'O', 'N', 'P', 'Y', 'T', 'O', 'N', 'P', 'Y', 'T', 'O', 'N')

5

print (T[0])

6

print (T[5])

n_T = ("mouse", [8, 4, 6], (1, 2, 3))

7

print (n_T[0] [3])

8

print (n_T[0] [0])

9

print (T[-1])

10

print (T[-6])

slicing

elements 2nd to 4th

11

print (T[1:4])

elements 8th to 9th

12

print (T[8])

elements beg to end

13

print (T[:])