

Lecture 17

Tuples in python part 1

Creating Tuples

```
In [1]: a = (10,20,30)
print(a)
print(type(a))
```

```
(10, 20, 30)
<class 'tuple'>
```

Empty tuple

```
In [2]: tup = ()
print(tup)
print(type(tup))
```

```
()
<class 'tuple'>
```

Single element

```
In [3]: b = (5)
print(b)
print(type(b))
```

```
5
<class 'int'>
```

```
In [4]: b = (5,)
print(b)
print(type(b))
```

```
(5,)
<class 'tuple'>
```

a tuple with mixed data types

```
In [5]: b = (1, 2.3, "swati", "nishant", True)
print(b)
print(type(b))
```

```
(1, 2.3, 'swati', 'nishant', True)
<class 'tuple'>
```

nested tuples

```
In [6]: a = ("mouse", 2.3, (10,20,30))
print(a)
print(type(a))
```

```
('mouse', 2.3, (10, 20, 30))
<class 'tuple'>
```

```
In [7]: num = ([12,14,16], [20,30], [14,78,96])
print(num)
print(type(num))
```

```
([12, 14, 16], [20, 30], [14, 78, 96])
<class 'tuple'>
```

Tuple Constructor

```
In [11]: empty = tuple()
print(empty)
print(type(empty))
```

```
()
<class 'tuple'>
```

Converting list into tuple

```
In [13]: list = [1,2,3,4]
print(list)
print(type(list))
number = tuple(list)
print(number)
print(type(number))
```

```
[1, 2, 3, 4]
<class 'list'>
(1, 2, 3, 4)
<class 'tuple'>
```

Converting string into a tuple

```
In [17]: string_example = "hello"
print(string_example)
print(type(string_example))
tuple1 = tuple(string_example)
print(tuple1)
print(type(tuple1))
```

```
hello
<class 'str'>
('h', 'e', 'l', 'l', 'o')
<class 'tuple'>
```

Converting dictionary into a tuple

```
In [19]: dict_example = { 'a':1, 'b':2, 'c':3}
print(dict_example)
print(type(dict_example))

tup = tuple(dict_example)
print(tup)
print(type(tup))
```

```
{'a': 1, 'b': 2, 'c': 3}
<class 'dict'>
('a', 'b', 'c')
<class 'tuple'>
```

Converting a set into a tuple

```
In [22]: set_example = {1,2,3,4}
print(set_example)
print(type(set_example))

tup2 = tuple(set_example)
print(tup2)
print(type(tup2))
```

```
{1, 2, 3, 4}
<class 'set'>
(1, 2, 3, 4)
<class 'tuple'>
```

```
In [ ]:
```

