Tuples

Tuples are collection of data which are ordered, immutable and allow duplicates.

In [27]:
```
my_tuple = ("Nissan", "Ford", "Volkswagen")

my_tuple = "Nissan", "Ford", "Volkswagen"
```

In [5]:
```
#tuples are indexed:
my_tuple[0]
```

Out[5]: 'Nissan'

In [6]:
```
my_tuple[1]
```

Out[6]: 'Ford'

In [7]:
```
#tuples can be sliced:
print(my_tuple[1:])
```

```
('Ford', 'Volkswagen')
```

In [8]:
```
#tuples are immutable:
my_tuple[0] = 'BMW'
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
<ipython-input-8-61a80df35148> in <module>
      1 #tuples are immutable:
----> 2 my_tuple[0] = 'BMW'

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

In [9]:
```
#sorting a tuple
my_tuple = (5,7,-3,2)
sorted_tuple =  sorted(my_tuple)
print(sorted_tuple)
```

```
[-3, 2, 5, 7]
```

In [10]:
```
my_tuple = (2,2,3,4,5,4,4,4,6,7)
```

In [11]:
```
print(my_tuple.count(2))
```

```
2
```

In [12]:
```
print(my_tuple.count(4))
```

```
4
```

In [13]:
```
print(len(my_tuple))
```

```
10
```

In [14]:
```
#adding tuples
a = (1,2,3)
b = (4,5,6)
c = a + b
print(c)
```

```
(1, 2, 3, 4, 5, 6)
```

In [15]:
```
#tuples are iterable
my_tuple = ("Nissan", "Ford", "Volkswagen")
for item in my_tuple:
    print("Your car brand is:", item)
```

```
Your car brand is: Nissan
Your car brand is: Ford
Your car brand is: Volkswagen
```

In [16]:
```
#tuple unpacking:
fruits = ('apple', 'banana')
a,b = fruits
print(a)
print(b)
```

```
apple
banana
```

In [17]:
```
fruits = ('apple', 'banana', 'cherry')
a,b,c = fruits
print(a)
print(b)
print(c)
```

```
apple
banana
cherry
```

In [18]:
```
sale_info = [('apple', 15), ('banana', 10), ('cherry', 30)]
```

In [19]:
```
for info in sale_info:
    print('You sold', info[1], info[0])
```

```
You sold 15 apple
You sold 10 banana
You sold 30 cherry
```

In [21]:
```
for fruit, number in sale_info:
    print('You sold', number, fruit)
```

```
You sold 15 apple
You sold 10 banana
You sold 30 cherry
```

In [22]:
```
def get_info():

    fruit = 'apple'
    quantity = 120

    return (fruit, quantity)
```

In [23]:
```
a, b = get_info()
print(a)
print(b)
```

```
apple
120
```