tuple

```
A tuple is a collection which is ordered and unchangeable
tuple = ("apple", "banana", "cherry", "orange", "kiwi", "melon", "mango")
print(thistuple)
print(thistuple[1]) =>"banana"
print(thistuple[-1]) =>"mango"
print(thistuple[2:5]) =>"cherry ... kiwi"
print(thistuple[-4:-1]) =>('orange', 'kiwi', 'melon')
----------convert----------
x = ("apple", "banana", "cherry")
y = list(x)
y[1] = "kiwi"
x = tuple(y)
----------loop----------
thistuple = ("apple", "banana", "cherry")
for x in thistuple:
  print(x)
----------test----------
thistuple = ("apple", "banana", "cherry")
if "apple" in thistuple:
  print("Yes, 'apple' is in the fruits tuple")
----------len----------
thistuple = ("apple", "banana", "cherry")
print(len(thistuple))
----------del----------
thistuple = ("apple", "banana", "cherry")
del thistuple
----------jointuples----------
```

tuple (cont)

```
tuple1 = ("a", "b" , "c")
tuple2 = (1, 2, 3)
tuple3 = tuple1 + tuple2
----------
thistuple = (1, 3, 7, 8, 7, 5, 4, 6, 8, 5)
x = thistuple.count(5) =>nb of repetiton of 5
x = thistuple.index(8)=>3 is the first location of 8
```

sets

```
A set is a collection which is unordered and unindexed
thisset = {"apple", "banana", "cherry"}
print(thisset)
----------
for x in thisset:
  print(x)
----------check----------
print("banana" in thisset)=>true or false
----------add----------
thisset.add("orange")
thisset.update(["orange", "mango", "grapes"])=>add more than one
----------len----------
print(len(thisset))
----------remove----------
thisset.remove("banana")
or
thisset.discard("banana")
```

sets (cont)

```
----------pop----------
x = thisset.pop()=>remove the last elet
----------clear----------
thisset.clear()=> empty the set
----------del----------
del thisset
----------joinset----------
set1 = {"a", "b" , "c"}
set2 = {1, 2, 3}
set3 = set1.union(set2)
----------update----------
set1 = {"a", "b" , "c"}
set2 = {1, 2, 3}
set1.update(set2)=>add set2 to set1
```