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Listas

In [4]:

```
l = ['álcool em gel', 'algodão', 'máscara', 'antisséptico', 'álcool puro']
l
```

Out[4]:

```
['álcool em gel', 'algodão', 'máscara', 'antisséptico', 'álcool pur
o']
```

In [8]:

```
l2 = ['lenço em papel', 'pilha', 'pasta de dente']
l2
```

Out[8]:

```
['lenço em papel', 'pilha', 'pasta de dente']
```

In [9]:

```
item1 = l[0]
item2 = l[1]
print(item1, ' - ', item2)
```

```
álcool em gel  -  algodão
```

In [10]:

```
# tamanho da lista
len(l), len(l2)
```

Out[10]:

```
(5, 3)
```

In [11]:

```
l2[1] = 'pilha palito'
l2
```

Out[11]:

```
['lenço em papel', 'pilha palito', 'pasta de dente']
```

In [12]:

```
del l2[1]
l2
```

Out[12]:

```
['lenço em papel', 'pasta de dente']
```

In [13]:

```
lista = [[1,2,3],[4,5,6],[7,8,9]]
print(lista)
```

```
[[1, 2, 3], [4, 5, 6], [7, 8, 9]]
```

In [14]:

```
lista[1]
```

Out[14]:

```
[4, 5, 6]
```

In [15]:

```
lista[0]
```

Out[15]:

```
[1, 2, 3]
```

In [16]:

```
lista[1][0]
```

Out[16]:

```
4
```

In [17]:

```
a = lista[1][0]
a
```

Out[17]:

```
4
```

In [18]:

```
b = lista[1]
b
```

Out[18]:

```
[4, 5, 6]
```

In [19]:

```
type(b)
```

Out[19]:

```
list
```

In [20]:

```
c = lista[1][0] + 10
c
```

Out[20]:

```
14
```

Concatenar listas

In [21]:

```
l, l2
```

Out[21]:

```
(['álcool em gel', 'algodão', 'máscara', 'antisséptico', 'álcool pur
o'],
 ['lenço em papel', 'pasta de dente'])
```

In [22]:

```
l3 = l + l2
l3
```

Out[22]:

```
['álcool em gel',
 'algodão',
 'máscara',
 'antisséptico',
 'álcool puro',
 'lenço em papel',
 'pasta de dente']
```

Operador in

In [34]:

```
ln = [1000, -2, -5, 3.14159]
ln
```

Out[34]:

```
[1000, -2, -5, 3.14159]
```

In [24]:

```
10 in ln
```

Out[24]:

```
False
```

In [25]:

```
-2 in ln
```

Out[25]:

```
True
```

Funções

In [26]:

```
len(ln)
```

Out[26]:

```
4
```

In [27]:

```
max(ln)
```

Out[27]:

```
1000
```

In [28]:

```
min(ln)
```

Out[28]:

```
-5
```

In [35]:

```
ln.append(9)
ln
```

Out[35]:

```
[1000, -2, -5, 3.14159, 9]
```

In [36]:

```
ln = ln + [33]
ln
```

Out[36]:

```
[1000, -2, -5, 3.14159, 9, 33]
```

In [37]:

```
ln = ln + 33
```

```
---------------------------------------------------------------------
-------
TypeError                                 Traceback (most recent cal
l last)
<ipython-input-37-b655377b6827> in <module>
----> 1 ln = ln + 33

TypeError: can only concatenate list (not "int") to list
```

In [38]:

```
ln = ln + [33]
ln
```

Out[38]:

```
[1000, -2, -5, 3.14159, 9, 33, 33]
```

In [39]:

```
ln.count(33)
```

Out[39]:

```
2
```

In [40]:

```
a = []
type(a)
```

Out[40]:

```
list
```

In [41]:

```
a.append(10)
a
```

Out[41]:

```
[10]
```

In [42]:

```
a.append(20)
```

In [43]:

```
a.append(30)
```

In [44]:

```
a
```

Out[44]:

```
[10, 20, 30]
```

In [45]:

```
b = a
b
```

Out[45]:

```
[10, 20, 30]
```

In [46]:

```
b = []
for item in a:
    b.append(item)
b
```

Out[46]:

```
[10, 20, 30]
```

In [47]:

```
list(range(10))
```

Out[47]:

```
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
```

In [49]:

```
ln = []
for i in range(10):
    print(i + 1)
    ln.append(i)
```

```
1
2
3
4
5
6
7
8
9
10
```

In [50]:

```
ln
```

Out[50]:

```
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
```

In [53]:

```
ln.sort()
```

In [55]:

```
ln.append(-1)
ln
```

Out[55]:

```
[0, 1, 2, 3, 4, 5, 6, 7, 8, 9, -1]
```

In [56]:

```
ln.sort()
print(ln)
```

```
[-1, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9]
```

Tuplas

In [57]:

```
t1 = ('UEPB', 2020, 'cct')
t1
```

Out[57]:

```
('UEPB', 2020, 'cct')
```

In [58]:

```
t1.append('DC')
```

```
---------------------------------------------------------------------
-------
AttributeError                            Traceback (most recent cal
l last)
<ipython-input-58-01542a73f7bd> in <module>
----> 1 t1.append('DC')

AttributeError: 'tuple' object has no attribute 'append'
```

In [59]:

```
t1[0]
```

Out[59]:

```
'UEPB'
```

In [60]:

```
len(t1)
```

Out[60]:

```
3
```

In [61]:

```
t1[1:]
```

Out[61]:

```
(2020, 'cct')
```

In [62]:

```
t1[0] = 'uepb-cct'
```

```
---------------------------------------------------------------------
-------
TypeError                                 Traceback (most recent cal
l last)
<ipython-input-62-c83e5810b298> in <module>
----> 1 t1[0] = 'uepb-cct'

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

In [63]:

```
# del t1
```

In [65]:

```
l1 = list(t1)
type(l1)
```

Out[65]:

```
list
```

In [66]:

```
l1
```

Out[66]:

```
['UEPB', 2020, 'cct']
```

In [68]:

```
l1[0] = 'uepb-cct'
print(l1)
```

```
['uepb-cct', 2020, 'cct']
```

Dicionário

In [69]:

```
d1 = {
    'Mateus': 24,
    'Fernanda': 22,
    'Tamires': 26,
    'Cristiano': 25
}
type(d1)
```

Out[69]:

```
dict
```

In [70]:

```
d1
```

Out[70]:

```
{'Mateus': 24, 'Fernanda': 22, 'Tamires': 26, 'Cristiano': 25}
```

In [71]:

```
d1.values()
```

Out[71]:

```
dict_values([24, 22, 26, 25])
```

In [72]:

```
d1.keys()
```

Out[72]:

```
dict_keys(['Mateus', 'Fernanda', 'Tamires', 'Cristiano'])
```

In [73]:

```
d1.items()
```

Out[73]:

```
dict_items([('Mateus', 24), ('Fernanda', 22), ('Tamires', 26), ('Cri
stiano', 25)])
```

In [74]:

```
d1['Fernanda']
```

Out[74]:

```
22
```

In [75]:

```
d1['Pedro'] = 27
d1
```

Out[75]:

```
{'Mateus': 24, 'Fernanda': 22, 'Tamires': 26, 'Cristiano': 25, 'Pedr
o': 27}
```

In [76]:

```
d2 = {}
```

In [77]:

```
d2
```

Out[77]:

```
{}
```

In [78]:

```
d2['Mariana'] = 28
d2['Fabio'] = 27
d2
```

Out[78]:

```
{'Mariana': 28, 'Fabio': 27}
```

In [79]:

```
# junção
d1.update(d2)
d1
```

Out[79]:

```
{'Mateus': 24,
 'Fernanda': 22,
 'Tamires': 26,
 'Cristiano': 25,
 'Pedro': 27,
 'Mariana': 28,
 'Fabio': 27}
```

In [80]:

```
d1[10] = 340
d1
```

Out[80]:

```
{'Mateus': 24,
 'Fernanda': 22,
 'Tamires': 26,
 'Cristiano': 25,
 'Pedro': 27,
 'Mariana': 28,
 'Fabio': 27,
 10: 340}
```

In [81]:

```
d1[10]
```

Out[81]:

```
340
```

In [82]:

```
d1[0]
```

```
---------------------------------------------------------------------------
-------
KeyError                                  Traceback (most recent cal
l last)
<ipython-input-82-f64ff61913e8> in <module>
----> 1 d1[0]

KeyError: 0
```

In [83]:

```
d1.keys()
```

Out[83]:

```
dict_keys(['Mateus', 'Fernanda', 'Tamires', 'Cristiano', 'Pedro', 'M
ariana', 'Fabio', 10])
```

In [85]:

```
idade1, idade2 = d1['Mateus'], d1['Fabio']
idade1, idade2
```

Out[85]:

```
(24, 27)
```

In [86]:

```
d3 = {
    'k1': 1256,
    'k2': [
        23,
        27,
        'UEPB',
        29
    ],
    'k3': [
        'álcool em gel',
        'algodão',
        'máscara',
        'antisséptico',
        'álcool puro'
    ]
}
d3
```

Out[86]:

```
{'k1': 1256,
 'k2': [23, 27, 'UEPB', 29],
 'k3': ['álcool em gel', 'algodão', 'máscara', 'antisséptico', 'álco
ol puro']}
```

In [87]:

```
d3['k2']
```

Out[87]:

```
[23, 27, 'UEPB', 29]
```

In [88]:

```
d3['k2'][2]
```

Out[88]:

```
'UEPB'
```

In [90]:

```
produto = d3['k3'][4]
produto
```

Out[90]:

```
'álcool puro'
```

In [91]:

```
produto = d3['k3'][5]
produto
```

```
---------------------------------------------------------------------
-------
IndexError                                Traceback (most recent cal
l last)
<ipython-input-91-bb0cc8ba3b1a> in <module>
----> 1 produto = d3['k3'][5]
      2 produto

IndexError: list index out of range
```

In [92]:

```
produto = d3['k3'][4].upper()
produto
```

Out[92]:

```
'ÁLCOOL PURO'
```

In [93]:

```
v1 = d3['k1'] - 1000
v1
```

Out[93]:

```
256
```

In [94]:

```
d3
```

Out[94]:

```
{'k1': 1256,
 'k2': [23, 27, 'UEPB', 29],
 'k3': ['álcool em gel', 'algodão', 'máscara', 'antisséptico', 'álco
ol puro']}
```

In [95]:

```
d3['k1'] = d3['k1'] - 1000
d3
```

Out[95]:

```
{'k1': 256,
 'k2': [23, 27, 'UEPB', 29],
 'k3': ['álcool em gel', 'algodão', 'máscara', 'antisséptico', 'álco
ol puro']}
```

In [98]:

```
d3['k1'] -= 100 # d3['k1'] - 1000
d3
```

Out[98]:

```
{'k1': 156,
 'k2': [23, 27, 'UEPB', 29],
 'k3': ['álcool em gel', 'algodão', 'máscara', 'antisséptico', 'álco
ol puro']}
```

In [99]:

```
d4 = {
    'k1': {
        'k11': 1
    },
    'k2': -2
}
d4
```

Out[99]:

```
{'k1': {'k11': 1}, 'k2': -2}
```

In [100]:

```
d4['k2']
```

Out[100]:

```
-2
```

In [101]:

```
d4['k1']
```

Out[101]:

```
{'k11': 1}
```

In [102]:

```
d4['k1']['k11']
```

Out[102]:

```
1
```

In [103]:

```
d3.keys()
```

Out[103]:

```
dict_keys(['k1', 'k2', 'k3'])
```

In [104]:

```
'k1' in d3.keys()
```

Out[104]:

```
True
```

In [105]:

```
if 'k1' in d3.keys():
    print('ok')
    x = d3['k1']
    print(x)
```

```
ok
156
```

In [ ]:

```

```