

## List

| Command  | Structure   | Example   | Obs  |
|--|---|---|--|
| Define List                                    | [list name] = [ [item1, item2, item3] ]   | zoo = [ 'horse', 'dog', 'parrot' ]                              |  |
|  | [list name] = [ ]   | empty_list = [ ]  | Define lista vazia   |
| Print Entire List                              | print( [list name] )  | print(zoo)  |  |
| Item of List                                   | [list name] [ [index] ]   | print( zoo[2] )   |  |
| Replace Item                                   | [list name] [ [index] ] = "[item]"  | zoo[2] = 'crab'   |  |
| Append   | [list name].append( "[item]" )  | zoo.append( "cat" )   | Add item no final da lista   |
| Access Slice of List                           | [list name] [ [initial index] : [final index] ]                                       | zoo[:2]      zoo[2:4]      zoo[4:]                              |  |
|  | [list name] [ [initial index] : [final index] : [step] ]                              | zoo[1:5:2]  | If step is negative, the list is read from right to left                         |
| Index  | [list name].index( "[item]" )   | dog_index = zoo.index( "dog" )                                  | Retorna o índice do elemento procurado   |
| Insert   | [list name].insert( [index] , "[item]" )  | zoo.insert(3, "snake" )   | Add um item na lista no índice definido  |
| Remove<br>Pop<br>Del                           | [list name].remove( "[item]" )  | zoo.remove( 'snake' )   | Remove o item da lista   |
|  | [list name].pop( [index] )  | zoo.pop(2)  | Remove item pelo índice da lista e Retorna o item excluído                       |
|  | del( [list name] [ [index] ] )  | del(zoo[2])   | Remove o item pelo índice escolhido  |
| Sort   | [list name].sort()  | zoo.sort()  | Organiza lista em ordem alfabética   |
| If / in  | if [variable] in [list name] :  |   |  |
| For / in<br>For / in enumerate<br>For / in zip | for [variable] in [list name] :   | for x in zoo:<br>print x  |  |
|  | for [index] , [variable] in enumerate( [list] ) :                                     | for index, animal in enumerate(zoo) :<br>print( index, animal ) | Acessa o índice e os elementos da lista  |
|  | for [variable1] , [variable2] in zip( [list1] , [list2] ) :                           | for a, b in zip(zoo, comidas) :                                 | Acessa os elementos de varias listas<br>Vai até o ultimo elemento da menor lista |
| List Comprehensions                            | [list name] = [ [item1] for [variable] in range ( [start] , [stop] ) if [condition] ] | cube_even = [x**2 for x in range (1,11) if x%2==0]              |  |

## Dictionary

| Command           | Structure  | Example  | Obs                          |
|-------------------|--|--|------------------------------|
| Define Dictionary | [dictionary] = { [key1] : [value1] , [key2] : [value2] , [key3] : [value3] } | residents = {'snake': 104, 'python': 105, 'fish': 106} |                              |
|                   | [dictionary] = { }   |  | Dicionario vazio             |
| Add New Key/Value | [dictionary] [ [new_key] ] = [new_value]                                     | residents[ 'bear' ] = 107                              |                              |
| Print             | print( [dictionary] )  | print(residents)                                       | Print todo dicionario        |
|                   | print( [dictionary] [ [key] ] )  | print( residents['snake'] )                            | Print valor da chave         |
|                   | print( [dictionary].items() )  | print( residents.items() )                             | Print todos os keys e values |
|                   | print( [dictionary].keys() )   | print( residents.keys() )                              | Print todos as keys          |
|                   | print( [dictionary].values() )   | print( residents.values() )                            | Print todos os values        |
| Delete Value      | del( [dictionary] [ [key] ] )  | del( residents['fish'] )                               |                              |
| For / in          | for [variable] in [dictionary] :   | for chave in residents:<br>print( residents[chave] )   |                              |

## List + Dictionary

| Command                               | Structure   | Example               | Obs                                       |
|---------------------------------------|---|-----------------------|---|
|                                       | Quando os valores de um dicionário são listas         |                       |   |
| Aceess Item of a List in a Dictionary | [dictionary name] [ '[key]' ] [ [index] ]             | residents['snake'][0] |   |
| Alphabetical Order                    | [dictionary name] [ '[key_list]' ].sort()             | zoo.sort()            |   |
| Remove                                | [dictionary name] [ '[key_list]' ].remove( "[item]" ) | zoo.remove("snake" )  | Remover um item da lista em um dicionário |