

Date: 07/09/2023

Given a list of 0,1,2 sort them

example:[0,1,0,2,0]
 [0,0,0,1,2]

```
def sortList(nums):  
    if len(nums) == 0:  
        return []  
    count_0 = 0  
    count_1 = 0  
    count_2 = 0  
    for num in nums:  
        if num == 0:  
            count_0 += 1  
        elif num == 1:  
            count_1 += 1  
        else:  
            count_2 += 1  
    return [0]*count_0 + [1]*count_1 + [2]*count_2
```

```
nums=[0,1,0,2,0]  
print( sortList(nums))
```

Test cases:

TC1

```
input:      [0,1,0,2,0]  
output:     [0,0,0,1,2]
```

TC2:

```
input:      []  
output:     []
```

TC3:

```
input:      [1]  
output:     [1]
```

=====

Given a num range of 50 sort them

```
def sortList(nums):
    if len(nums) == 0:
        return []
    count_dict = {}
    for num in nums:
        if num in count_dict:
            count_dict[num] += 1
        else:
            count_dict[num] = 1
    num_range = 51
    res_list = []
    for i in range(num_range):
        if i in count_dict:
            res_list += [i]*count_dict[i]
    return res_list
```

Test Cases:

TC 1:

input : [3,5,10,5,50,10,5]

output: [3,5,5,5,10,10]

TC 2:

input : []

output : []

TC 3:

input : [0]

output : [0]