

# PPT Mock Test 1

June 26, 2023

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[1]: '''
Q.1 Given an integer array nums, move all 0's to the end of it while
    maintaining the relative order of the non-zero elements.

Note that you must do this in-place without making a copy of the array.

Example 1:
Input: nums = [0,1,0,3,12]
Output: [1,3,12,0,0]

Example 2:
Input: nums = [0]
Output: [0]

Constraints:
a. 1 <= nums.length <= 104
b. -231 <= nums[i] <= 231 - 1
'''

# Program :-
def moveZeroes(nums):
    left = 0
    right = 0

    while right < len(nums):
        if nums[right] != 0:
            nums[left], nums[right] = nums[right], nums[left]
            left += 1
        right += 1

# Test the function
nums = [0, 1, 0, 3, 12]
moveZeroes(nums)
print(nums)
```

[1, 3, 12, 0, 0]

```
[2]: '''
Q.2 Given a string s, find the first non-repeating character in it and return
↳ its index. If it does not exist, return -1.

Example 1:
Input: s = "leetcode"
Output: 0

Example 2:
Input: s = "loveleetcode"
Output: 2

Example 3:
Input: s = "aabb"
Output: -1

Constraints:
a. 1 <= s.length <= 105
b. s consists of only lowercase English letters.
'''

# Program :-
def firstUniqChar(s):
    charFreq = {}

    for char in s:
        charFreq[char] = charFreq.get(char, 0) + 1

    for i in range(len(s)):
        if charFreq[s[i]] == 1:
            return i

    return -1

# Test the function
s = "leetcode"
print(firstUniqChar(s))
```

0