

## 75. Sort Colors

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Given an array with  $n$  objects colored red, white or blue, sort them **in-place** ([https://en.wikipedia.org/wiki/In-place\\_algorithm](https://en.wikipedia.org/wiki/In-place_algorithm)) so that objects of the same color are adjacent, with the colors in the order red, white and blue.

Here, we will use the integers 0, 1, and 2 to represent the color red, white, and blue respectively.

**Note:** You are not suppose to use the library's sort function for this problem.

**Example:**

**Input:** [2,0,2,1,1,0]  
**Output:** [0,0,1,1,2,2]

**Follow up:**

- A rather straight forward solution is a two-pass algorithm using counting sort.  
First, iterate the array counting number of 0's, 1's, and 2's, then overwrite array with total number of 0's, then 1's and followed by 2's.
- Could you come up with a one-pass algorithm using only constant space?

Seen this question in a real interview before?

Difficulty: **Medium**

Total Accepted: 250.2K

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