

## Majority Element II

You are given an array of integer `arr[]` where each number represents a vote to a candidate. Return the candidates that have votes greater than one-third of the total votes. If there's not a majority vote, return an empty array.

**Note:** The answer should be returned in an increasing format.

**Examples:**

**Input:** arr[] = [2, 1, 5, 5, 5, 5, 6, 6, 6, 6, 6]

**Output:** [5, 6]

**Explanation:** 5 and 6 occur more  $n/3$  times.

**Input:** arr[] = [1, 2, 3, 4, 5]

**Output:** []

**Explanation:** no candidate occur more than  $n/3$  times.

### Constraint

```
1 <= arr.size() <= 106
```

$$-10^9 \leq \text{arr}[i] \leq 10^9$$

### Related Articles

### Expected Complexities

[Report An Issue](#)

If you are facing any issue on this page. Please let us know.

```
Java (1.8)
Average Time: 15m
@ Your Time: 14m 1s
```

```
1 // Multi-Driven Code Ends
36 class Solution {
37     // Function to find the majority elements in the array
38     public List<Integer> findMajority(int[] nums) {
39         List<Integer> result = new ArrayList<>();
40         if(nums == null || nums.length==0){
41             return result;
42         }
43         int candidate1=0, candidate2=0, count1=0, count2=0;
44         int n = nums.length;
45         for(int num : nums){
46             if(num == candidate1){
47                 count1++;
48             }
49             else if(num == candidate2){
50                 count2++;
51             }
52             else if(count1 == 0){
53                 candidate1 = num ;
54                 count1 = 1;
55             }
56             else if(count2==0){
57                 candidate2 = num;
58                 count2=1;
59             }
60             else{
61                 count1--;
62                 count2--;
63             }
64         }
65         count1=0;
66         count2=0;
67         for(int num : nums){
68             if(num == candidate1){
69                 count1++;
70             } else if(num == candidate2){
71                 count2++;
72             }
73         }
74         if(count1 >n/3){
75             result.add(candidate1);
76         }
77         if(count2> n/3){
78             result.add(candidate2);
79         }
80         Collections.sort(result);
81         return result;
82     }
83 }
```

**Compile & Run**

Submit