CS23331-DAA-2024-CSE / 2-Majority Element

2-Majority Element

Started on	Tuesday, 30 September 2025, 10:09 PM
State	Finished
Completed on	Tuesday, 30 September 2025, 10:15 PM
Time taken	6 mins 30 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question 1 | Correct   Mark 1.00 out of 1.00   ⚑ Flag question

Given an array nums of size n, return *the majority element*.

The majority element is the element that appears more than ⌊n / 2⌋ times. You may assume that the majority element always exists in the array.

Example 1:

```
Input: nums = [3,2,3]
Output: 3
```

Example 2:

```
Input: nums = [2,2,1,1,1,2,2]
Output: 2
```

Constraints:

- `n == nums.length`
- $1 <= n <= 5 * 10^4$
- $-2^{31} <= nums[i] <= 2^{31} - 1$

For example:

Input	Result
3 3 2 3	3
7 2 2 1 1 1 2 2	2

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>

int majorityElement(int arr[], int size) {
    int count = 0, candidate = 0;
    for (int i = 0; i < size; i++) {
        if (count == 0) {
            candidate = arr[i];
            count = 1;
        } else if (arr[i] == candidate) {
            count++;
        } else {
            count--;
        }
    }
    return candidate;
}

int main() {
    int n;
    scanf("%d", &n);
    int arr[n];
    for(int i = 0; i < n; i++) {
        scanf("%d", &arr[i]);
    }
    printf("%d\n", majorityElement(arr, n));
    return 0;
}
```

	Input	Expected	Got	

| ✔ | 3 | 3 | | 3 | ✔ |
| | 3 2 3 | | | | |

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Finish review

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