RAJALAKSHMI ENGINEERING COLLEGE

MONIKA R 2024-CSE

M2

Started on	Wednesday, 17 September 2025, 3:42 PM
State	Finished
Completed on	Wednesday, 17 September 2025, 3:45 PM
Time taken	2 mins 38 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question 1 | Correct Mark 1.00 out of 1.00

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 findFloor(int arr[], int n, int x) {
    int low = 0, high = n - 1;
    int floor = -1;

    while (low <= high) {
        int mid = (low + high) / 2;

        if (arr[mid] == x)
            return arr[mid];
        else if (arr[mid] < x) {
            floor = arr[mid];
            low = mid + 1;
        } else {
            high = mid - 1;
        }
    }

    return floor;
}

int main() {
    int n, x;
    scanf("%d", &n);

    int arr[n];
    for (int i = 0; i < n; i++)
        scanf("%d", &arr[i]);

    scanf("%d", &x);

```

```
    int result = findFloor(arr, n, x);
    printf("%d\n", result);

    return 0;
}
```

	Input	Expected	Got	
✔	3 3 2 3	3	3	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

Back to Course