Logo

STUDENT REPORT

DETAILS

Name

B SHRINIVAS

Roll Number

KUB23CSE018

EXPERIMENT

Title

ELECTIONS

Description

You are the head of the election committee in your village. Each Political party is associated with a unique number and the votes are represented as an integer array A. where each element contains the party number voted for by the villagers. For a party to win, they must have a majority of votes. our task is to find and return an integer value denoting the winning party's number. Return -1 if there is no party with a majority.

Note: If only one vote is there he is the winner.

Input Format :

input1: An integer value representing the number the number of voters

input2: An integer array A representing the votes of the voters.

output Format:

Return an integer value denoting the winning party's number.Return -1 there is no party with a majority

Example 1:

Input:

6

1 1 2 2 2 3

Output:

2

Explanation:

As 2 got the most number of votes i.e 3.

Example 2:

Input:

6

1 2 1 1 2 2

Output:

-1

Explanation:

As both the contestants got same votes there is no majority.

Source Code:

```python
def find_winning_party(num_voters, votes):
    if num_voters == 1:
        return votes[0]  # Only one vote, that party wins.

    vote_count = {}

    # Count votes for each party
    for vote in votes:
        if vote in vote_count:
            vote_count[vote] += 1
        else:
            vote_count[vote] = 1

    majority_threshold = num_voters // 2
    winning_party = -1

    for party, count in vote_count.items():
        if count > majority_threshold:
            if winning_party == -1:  # First party found with majority
                winning_party = party
            else:
                return -1  # More than one party has a majority

    return winning_party

# Example usage:
num_voters1 = 6
votes1 = [1, 1, 2, 2, 2, 3]
print(find_winning_party(num_voters1, votes1))  # Output: 2

num_voters2 = 6
votes2 = [1, 2, 1, 1, 2, 2]
print(find_winning_party(num_voters2, votes2))  # Output: -1
```

RESULT

0 / 6 Test Cases Passed | 0 %