

January 2025, CSE 106
Online on Array (C1/C2)
Time: 35 Minutes

A university is organizing a student council election. Each student can vote for one candidate. The university wants to know if any candidate received more than half of the total votes (i.e., a *majority*). You are given an array of integers, where each integer represents the candidate ID voted for by a student. Write a C program to determine if there is a majority candidate, and if so, print their candidate ID. If no candidate has a majority, print "No Majority Candidate". Each student voted for exactly one candidate.

Input: An array *votes* ($1 \leq \text{votes}[i] \leq 10^6$) of size *n* ($1 \leq n \leq 10^4$) where each element is a positive integer.

Output: candidate ID if there is a majority candidate or “No Majority Candidate”.

Example 1:

Input: $n = 7$, $\text{votes}[] = \{2, 2, 1, 2, 3, 2, 2\}$

Output: 2

Example 2:

Input: $n = 7$, $\text{votes}[] = \{1, 2, 3, 2, 3, 1, 2\}$

Output: No Majority Candidate