Dashbo... / My cour... / CS23331-DAA-2023-... / Competitive Programm... / 2-Finding Duplicates-O(n) Time Complexity,O(1) Space Comp...

Started on	Tuesday, 5 November 2024, 1:51 PM
State	Finished
Completed on	Tuesday, 5 November 2024, 1:55 PM
Time taken	4 mins 38 secs
Marks	1.00/1.00
Grade	**4.00** out of 4.00 (**100**%)

Question **1**

Correct

Mark 1.00 out of 1.00

Find Duplicate in Array.

Given a read only array of n integers between 1 and n, find one number that repeats.

Input Format:

First Line - Number of elements

n Lines - n Elements

Output Format:

Element x - That is repeated

For example:

Input	Result
5 1 1 2 3 4	1

Answer: (penalty regime: 0 %)

```c
 1  #include <stdio.h>
 2  #include <stdbool.h>
 3  int find_duplicate(int arr[], int n) {
 4      bool visited[n + 1];
 5      for (int i = 0; i <= n; i++) {
 6          visited[i] = false;
 7      }
 8      for (int i = 0; i < n; i++) {
 9          if (visited[arr[i]]) {
10              return arr[i];
11          }
12          visited[arr[i]] = true;
13      }
14      return -1;
15  }
16  int main() {
17      int n;
18      scanf("%d", &n);
19      int arr[n];
20      for (int i = 0; i < n; i++) {
21          scanf("%d", &arr[i]);
22      }
23      int duplicate = find_duplicate(arr, n);
24      printf("%d\n", duplicate);
25      return 0;
26  }
27
```

	Input	Expected	Got	
✔	11 10 9 7 6 5 1 2 3 8 4 7	7	7	✔
✔	5 1 2 3 4 4	4	4	✔
✔	5 1 1 2 3 4	1	1	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

◄ 1-Finding Duplicates-O(n^2) Time Complexity,O(1) Space Complexity

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3-Print Intersection of 2 sorted arrays-O(m*n)Time Complexity,O(1) Space Complexity ►

◄ 1-Finding Duplicates-O(n^2) Time Complexity,O(1) Space Complexity

3-Print Intersection of 2 sorted arrays-O(m*n)Time Complexity,O(1) Space Complexity ►