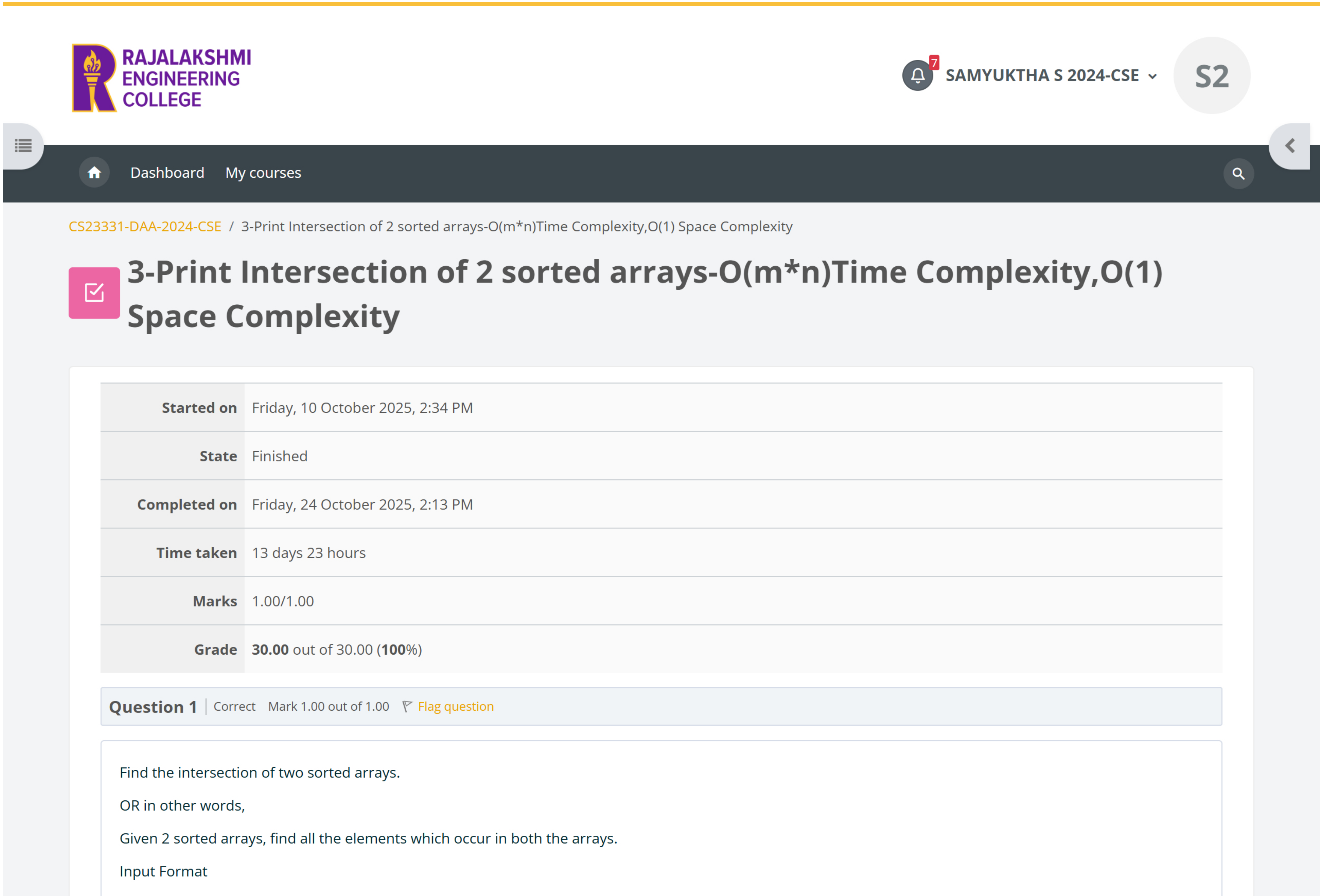


RAJALAKSHMI ENGINEERING COLLEGE

7 SAMYUKTHA S 2024-CSE S2

Dashboard My courses

CS23331-DAA-2024-CSE / 3-Print Intersection of 2 sorted arrays-O(m*n)Time Complexity,O(1) Space Complexity

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

Started on	Friday, 10 October 2025, 2:34 PM
State	Finished
Completed on	Friday, 24 October 2025, 2:13 PM
Time taken	13 days 23 hours
Marks	1.00/1.00
Grade	**30.00** out of 30.00 (**100**%)

Question 1 Correct Mark 1.00 out of 1.00 Flag question

Find the intersection of two sorted arrays.

OR in other words,

Given 2 sorted arrays, find all the elements which occur in both the arrays.

Input Format

- The first line contains T, the number of test cases. Following T lines contain:

1. Line 1 contains N1, followed by N1 integers of the first array
2. Line 2 contains N2, followed by N2 integers of the second array

Output Format

The intersection of the arrays in a single line

Example

Input:

1

3 10 17 57

6 2 7 10 15 57 246

Output:

10 57

Input:

1

6 1 2 3 4 5 6

2 1 6

Output:

1 6

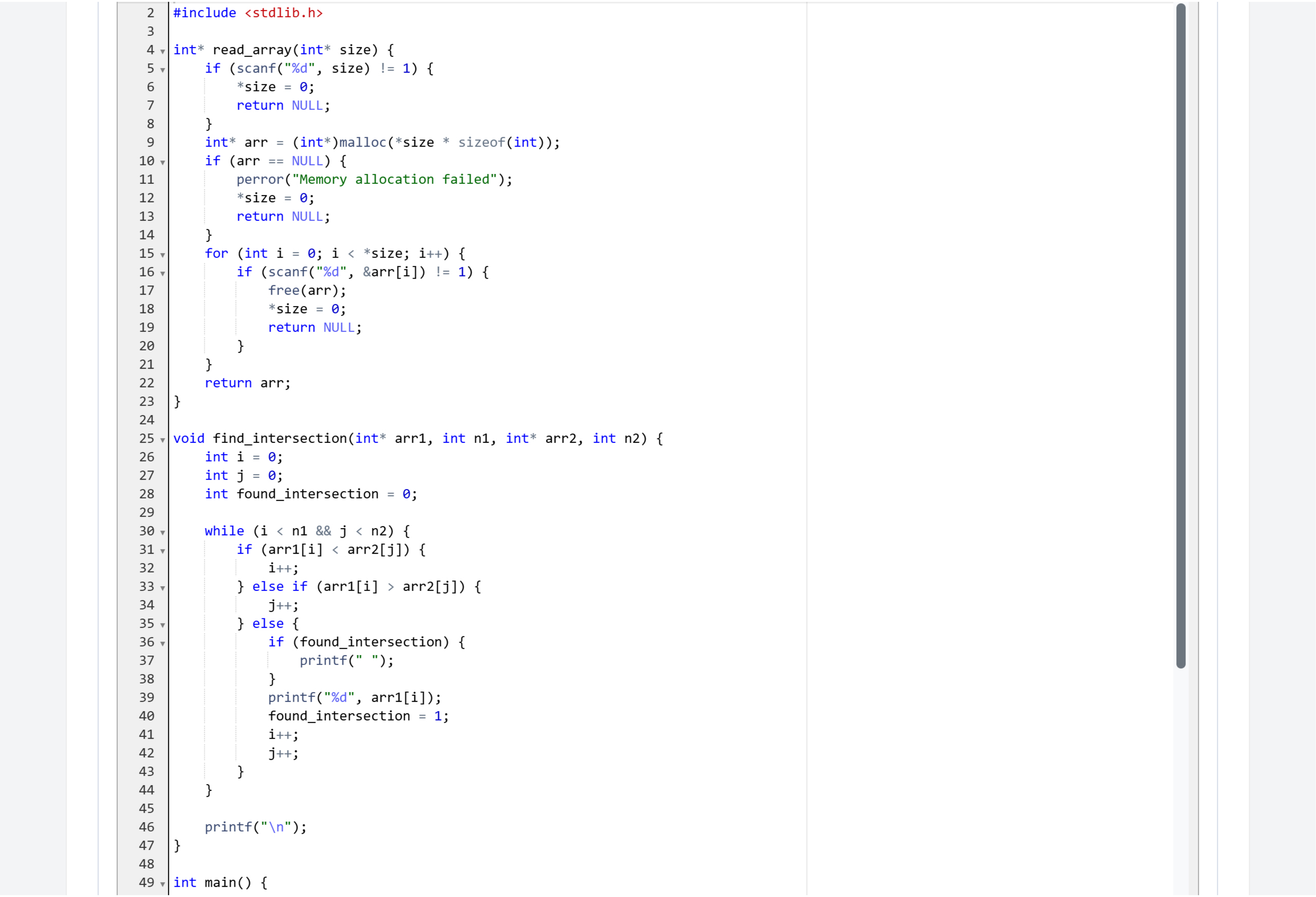
For example:

Input	Result

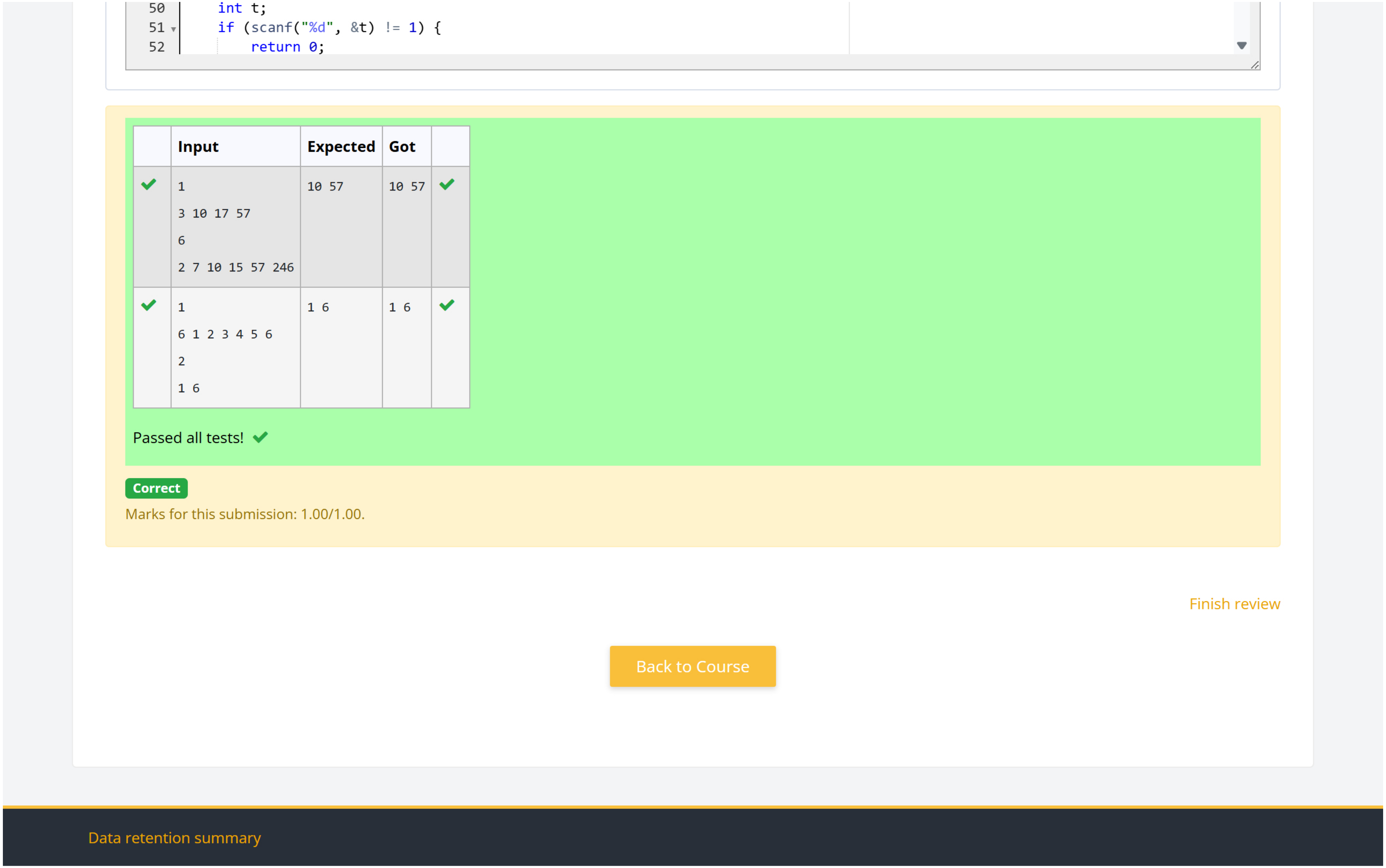
1
3 10 17 57
6
2 7 10 15 57 246
	10 57

Answer: (penalty regime: 0 %)

```
#include <stdio.h>
```



```c
#include <stdlib.h>

int* read_array(int* size) {
    if (scanf("%d", size) != 1) {
        *size = 0;
        return NULL;
    }
    int* arr = (int*)malloc(*size * sizeof(int));
    if (arr == NULL) {
        perror("Memory allocation failed");
        *size = 0;
        return NULL;
    }
    for (int i = 0; i < *size; i++) {
        if (scanf("%d", &arr[i]) != 1) {
            free(arr);
            *size = 0;
            return NULL;
        }
    }
    return arr;
}

void find_intersection(int* arr1, int n1, int* arr2, int n2) {
    int i = 0;
    int j = 0;
    int found_intersection = 0;

    while (i < n1 && j < n2) {
        if (arr1[i] < arr2[j]) {
            i++;
        } else if (arr1[i] > arr2[j]) {
            j++;
        } else {
            if (found_intersection) {
                printf(" ");
            }
            printf("%d", arr1[i]);
            found_intersection = 1;
            i++;
            j++;
        }
    }

    printf("\n");
}

int main() {
```



```
    int t;
    if (scanf("%d", &t) != 1) {
        return 0;
```

	Input	Expected	Got	
✓	1 3 10 17 57 6 2 7 10 15 57 246	10 57	10 57	✓
✓	1 6 1 2 3 4 5 6 2 1 6	1 6	1 6	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.