CHANDIGARH UNIVERSITY
UNIVERSITY INSTITUTE OF NGINEERING
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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LAB INDEX

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SUBJECT NAME: Competitive Coding Lab
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Sr. No	Program	Date	Evaluation				Sign
			LW (12)	VV (8)	FW (10)	Total (30)	

Practical 1

Problem Statement 1.1:

Objective

Today, we will learn about the *Array* data structure.

Task

Given an array, A, of N integers, print A's elements in *reverse* order as a single line of space-separated numbers.

Example A= [1,2,3,4]

Print 4 3 2 1. Each integer is separated by one space.

Input Format

The first line contains an integer, N (the size of our array).

The second line contains N space-separated integers that describe array A's elements.

Constraints

- 1<=N<=1000
- 1<=A[i]<=10000, where is the integer in the array.

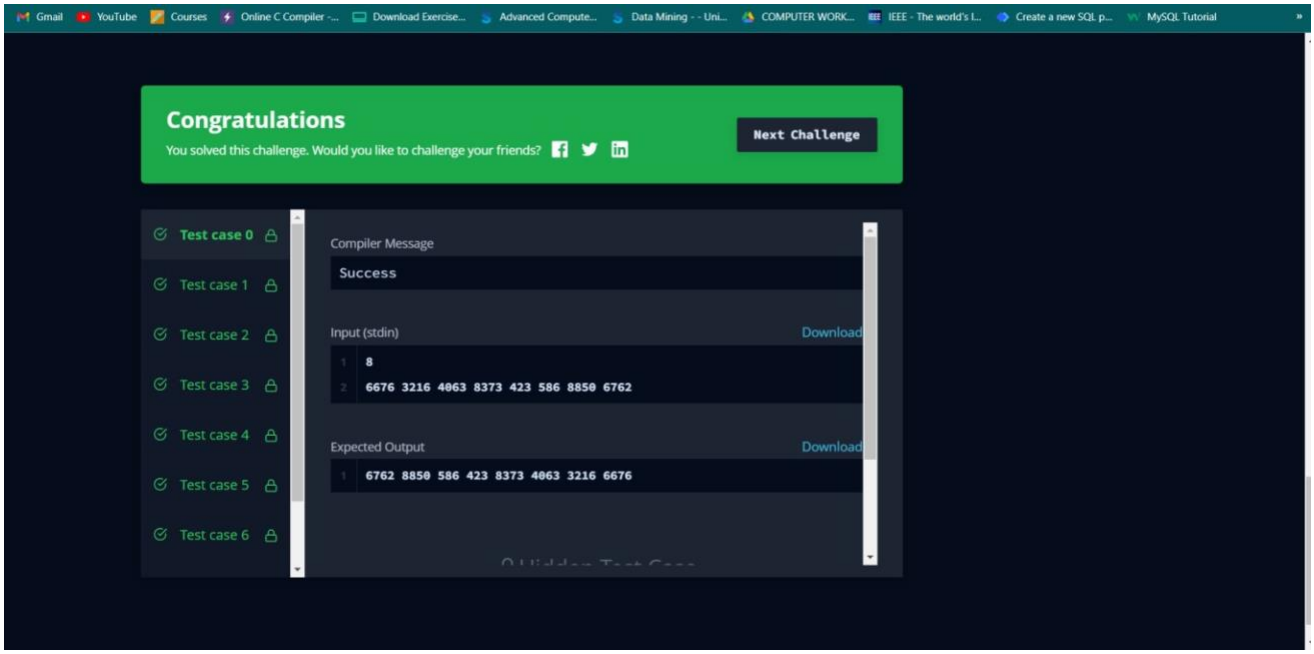
Solution-

```
#include <iostream>
using namespace std;

int main()
{    int n;    cin>>n;
int arr[n];    for(int
i=0;i<n;i++){
cin>>arr[i];
   }

   for (int i = n - 1; i >= 0; i--) {
cout << arr[i] << " ";
   }
   return 0;
}
```

Screenshot:



Problem Statement 1.2:

Alice and Bob each created one problem for HackerRank. A reviewer rates the two challenges, awarding points on a scale from *1* to *100* for three categories: *problem clarity*, *originality*, and *difficulty*.

The rating for Alice's challenge is the triplet *a = (a[0], a[1], a[2])*, and the rating for Bob's challenge is the triplet *b = (b[0], b[1], b[2])*.

The task is to find their *comparison points* by comparing *a[0]* with *b[0]*, *a[1]* with *b[1]*, and *a[2]* with *b[2]*.

- If *a[i] > b[i]*, then Alice is awarded *1* point.
- If *a[i] < b[i]*, then Bob is awarded *1* point.
- If *a[i] = b[i]*, then neither person receives a point.

Comparison points is the total points a person earned.
Given *a* and *b*, determine their respective comparison points. **Example**

a = [1, 2, 3] b

= [3, 2, 1]

- For elements *0*, Bob is awarded a point because *a[0]* .
- *For the equal elements a[1] and b[1], no points are earned.*
- *Finally, for elements 2, a[2] > b[2] so Alice receives a point.*

The return array is [1, 1] with Alice's score first and Bob's second.

Function Description

Complete the function compareTriplets in the editor below.

compareTriplets has the following parameter(s):

- *int a[3]: Alice's challenge rating*
- *int b[3]: Bob's challenge rating*

Return

• *int[2]*: Alice's score is in the first position, and Bob's score is in the second. **Input**

Format

The first line contains *3* space-separated integers, *a[0]*, *a[1]*, and *a[2]*, the respective values in triplet *a*.

The second line contains *3* space-separated integers, *b[0]*, *b[1]*, and *b[2]*, the respective values in triplet *b*.

Constraints

- $1 \leq a[i] \leq 100$
- $1 \leq b[i] \leq 100$

Solution:

```
#include <iostream>
using namespace std;
                int
main() {    int
a[3], b[3];

   int count1 = 0, count2 =0;
for (int i=0; i<3; i++) {
cin>>a[i];
```

```
    }
    for (int i=0; i<3; i++){
cin>>b[i];
    }
    for (int i=0; i<3; i++){
if(a[i] > b[i]) count1++;        else
if (a[i] < b[i]) count2++;
    }
    cout << count1 << " " << count2;
return 0;
}
```

Screenshot: