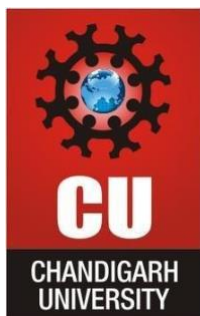


CHANDIGARH UNIVERSITY
UNIVERSITY INSTITUTE OF ENGINEERING
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



Submitted By: Bhanu Pundir		Submitted To: ER. RITU	
Subject Name	Competitive Coding Lab		
Subject Code	20CSP-314		
Branch	BE-CSE		
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LAB INDEX

NAME: Bhanu Pundir

UID: 20BCS1439

SECTION: 20BCSWM-620 B

SUBJECT NAME: Competitive Coding Lab

SUBJECT CODE: 20CSP-314

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

- $1 \leq N \leq 1000$
- $1 \leq A[i] \leq 10000$, where i is the integer in the array.

Solution-

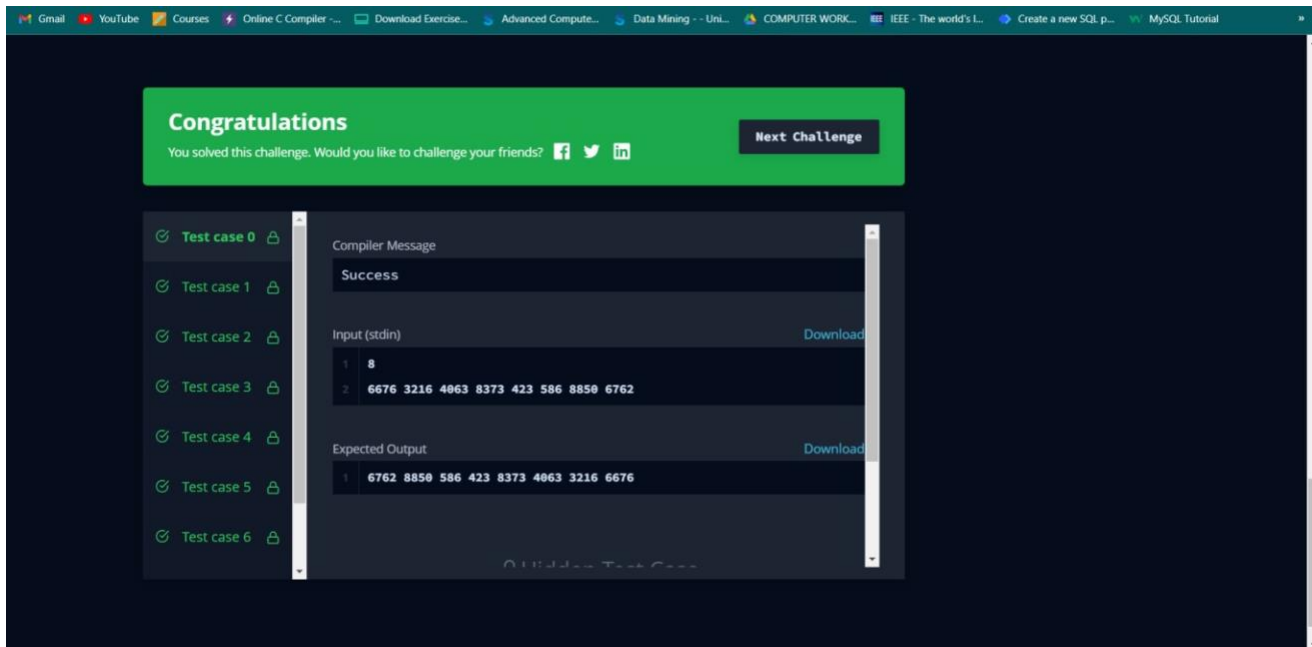
```
#include <iostream>

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 $a[0]$, Bob is awarded a point because $a[0] < b[0]$.
- 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:

The screenshot shows a web interface for a coding challenge. At the top, a green banner displays "Congratulations" and a message: "You solved this challenge. Would you like to challenge your friends?" with social media icons for Facebook, Twitter, and LinkedIn. A "Next Challenge" button is also present. Below the banner, a list of test cases (0 to 6) is shown on the left, each with a green checkmark and a lock icon. The right side of the interface displays the "Compiler Message" as "Success". Below this, the "Input (stdin)" is shown as two lines: "5 6 7" and "3 6 10". The "Expected Output" is shown as one line: "1 1". A "Download" button is visible next to the input and output sections. At the bottom, a footer contains links for Blog, Scoring, Environment, FAQ, About Us, Support, Careers, Terms Of Service, Privacy Policy, and Request a Feature.