

Queue at Dongda dining hall

Description

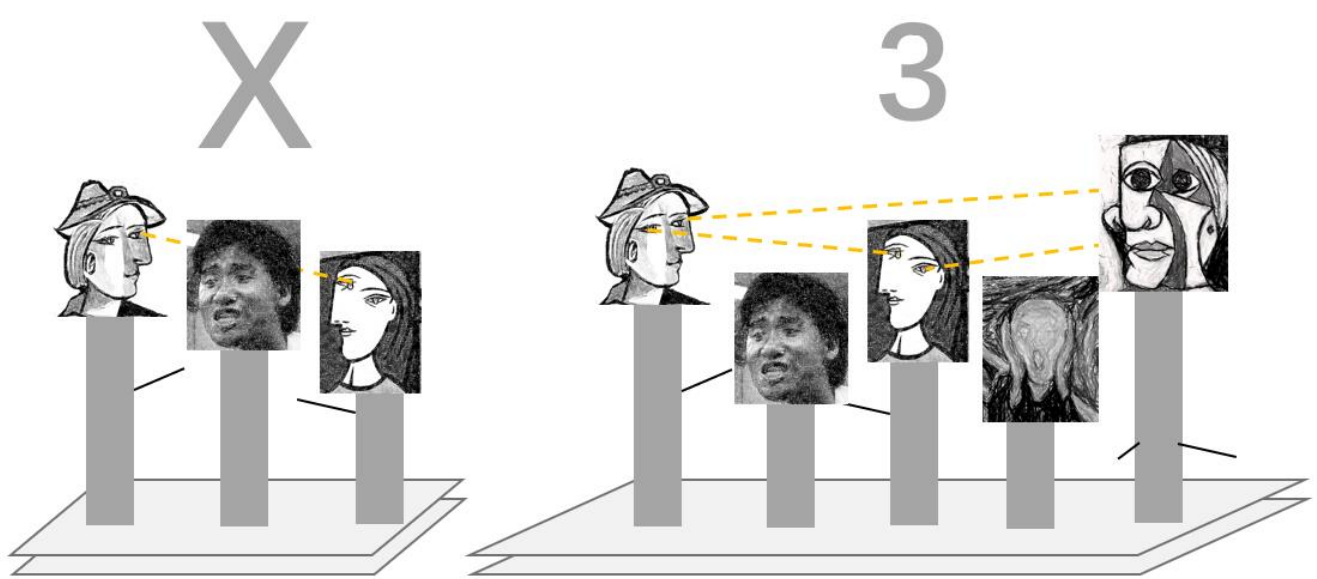
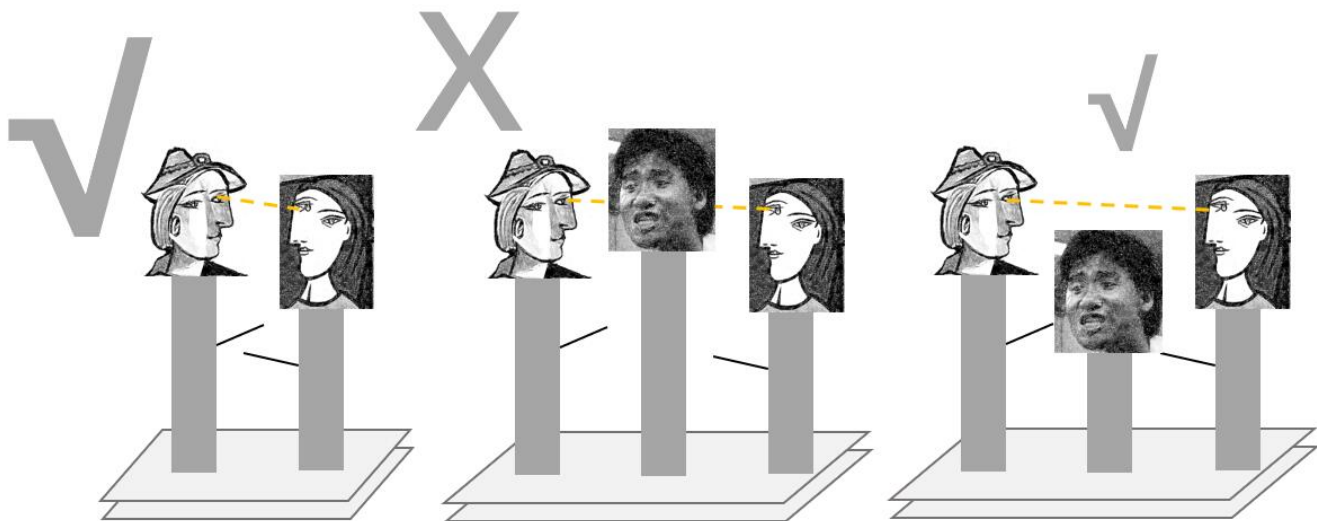


Motivation



After enjoying CS101 at morning, you are immersed in the sunlight shedding on Dongda dining hall, where cusine conjures in your mind. However, the extremely LONG LONG queue blocks your imagination. You starts to be impatient and looks for your friend. At the same time, two facts arouse your curoosity.

1. If two students are adjacent in a queue, they are visible to each other.
2. If students between two students are shorter(or equal), those two ones are still able to see each other.
3. Otherwise, if any one of them shorter than any student between them. They cannot see each other.



Goal

When you are having your meal, you find yourself can easily memorize the height of all students in the queue. However, you are really curious about one thing:

- how many pairs of students could see each other?

F&Q

1. If students are of height "2, 2, 3", can the first student see the third student?

Yes

Input

1. At first line, an integer N is provided, indicating the population of the queue.
2. At next N lines, N integers are provided, indicating the height of those N students.

No illegal input exists in TestCase. All integers can be well saved in int32.

- For 30% TestCase, $N \leq 100$
- For 60% TestCase, $N \leq 10000$
- For 100% TestCase, $N \leq 500000$

Output

A integer P, indicating P pairs of people are visible to each other.P can be well saved in int32.

Sample Input 1

```
7
2
4
1
2
2
5
1
```

Sample Output 1

```
10
```

Problems
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Information	
D	201
Time Limit	500MS
Memory Limit	256MB
IO Mode	Standard IO
Created By	root
Level	Low
Score	100
Tags	Show

