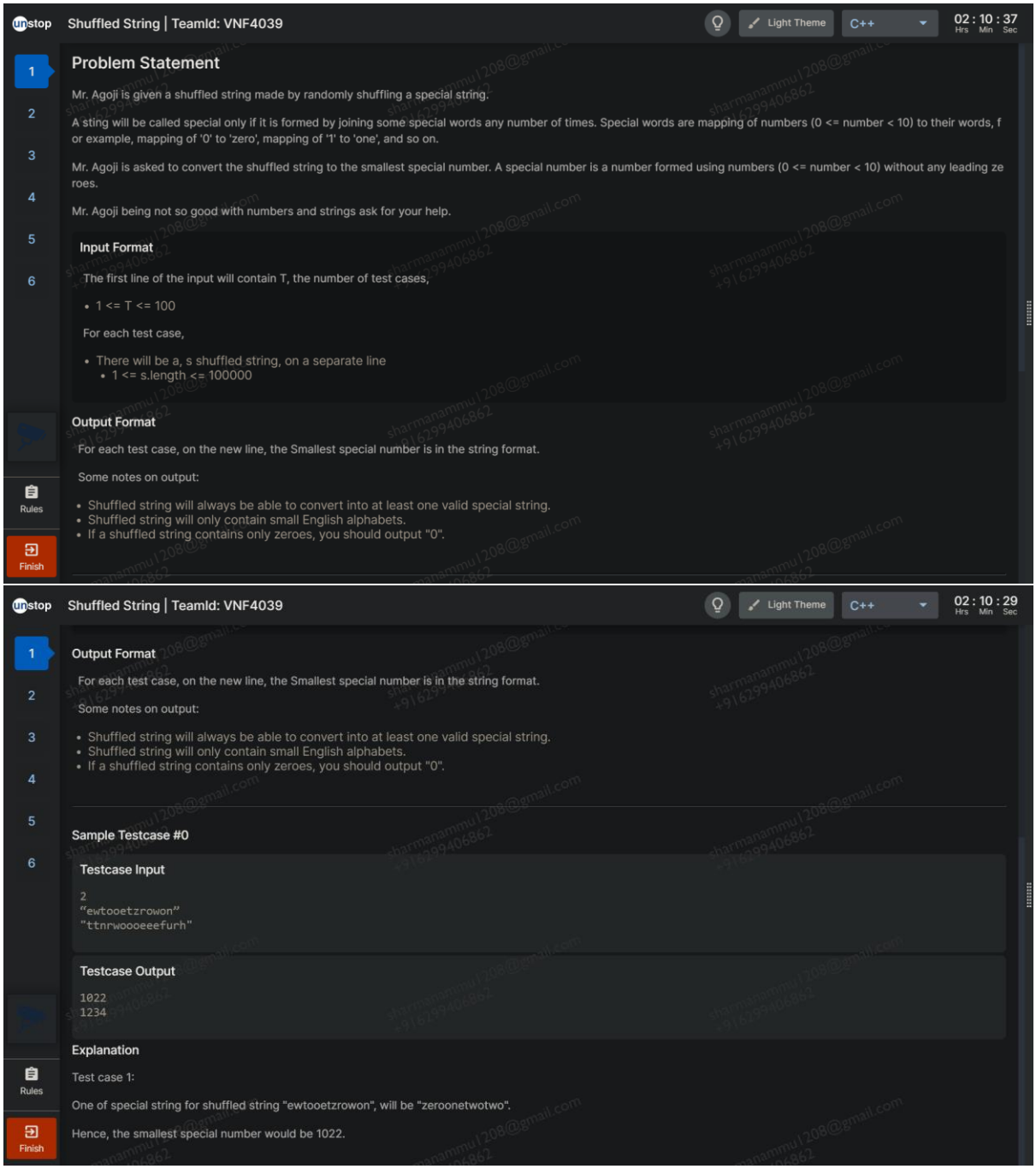
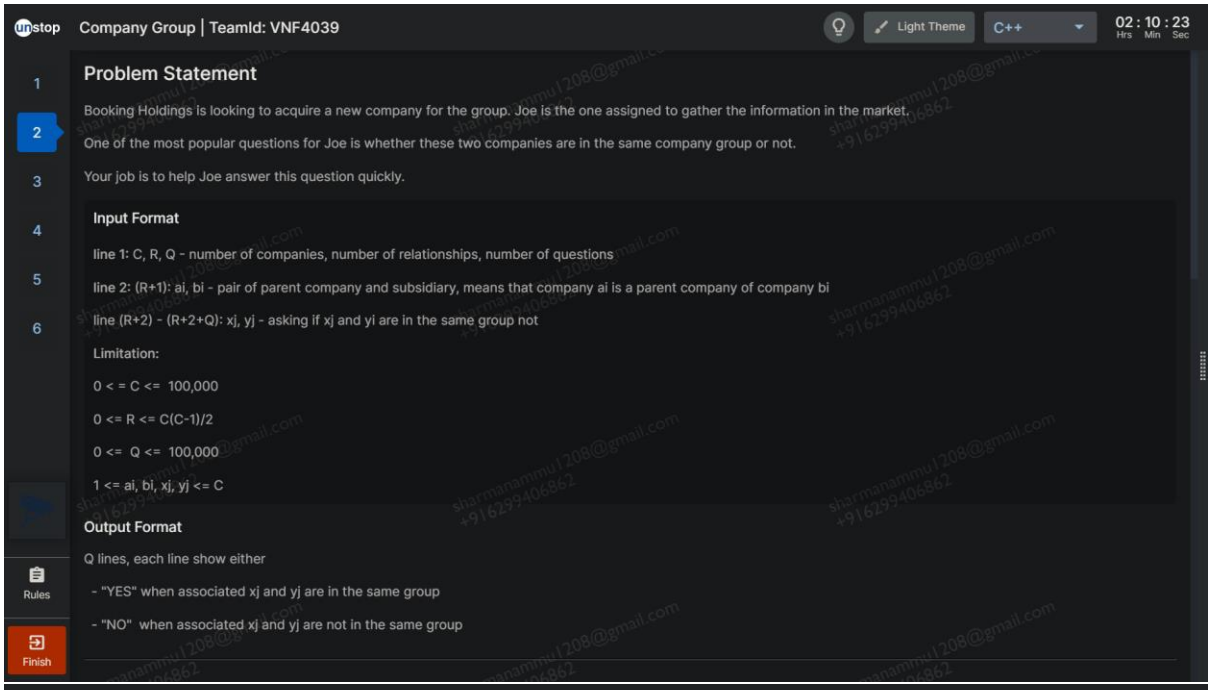
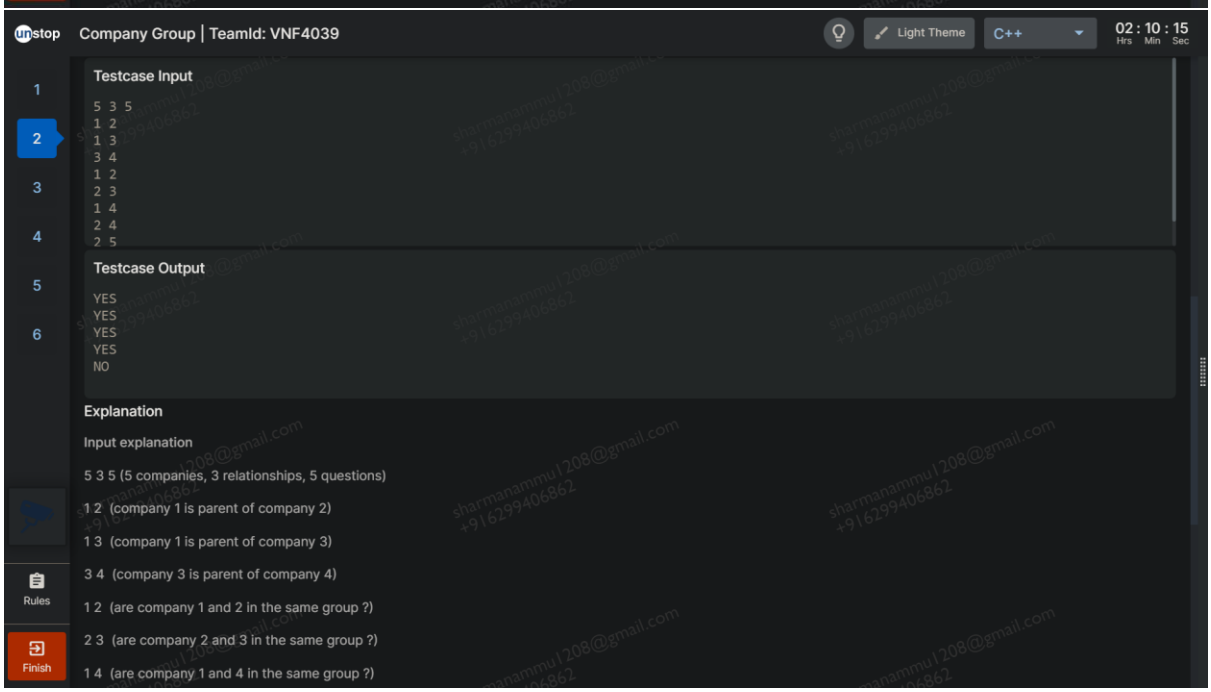
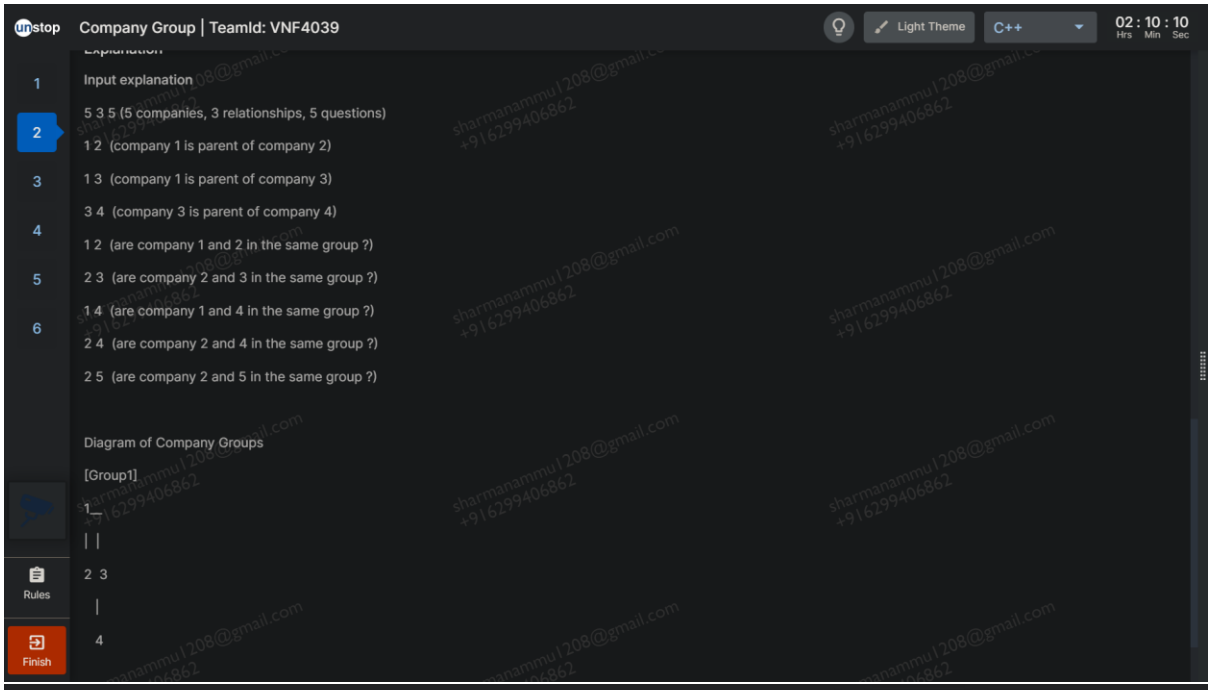
CODEGODA

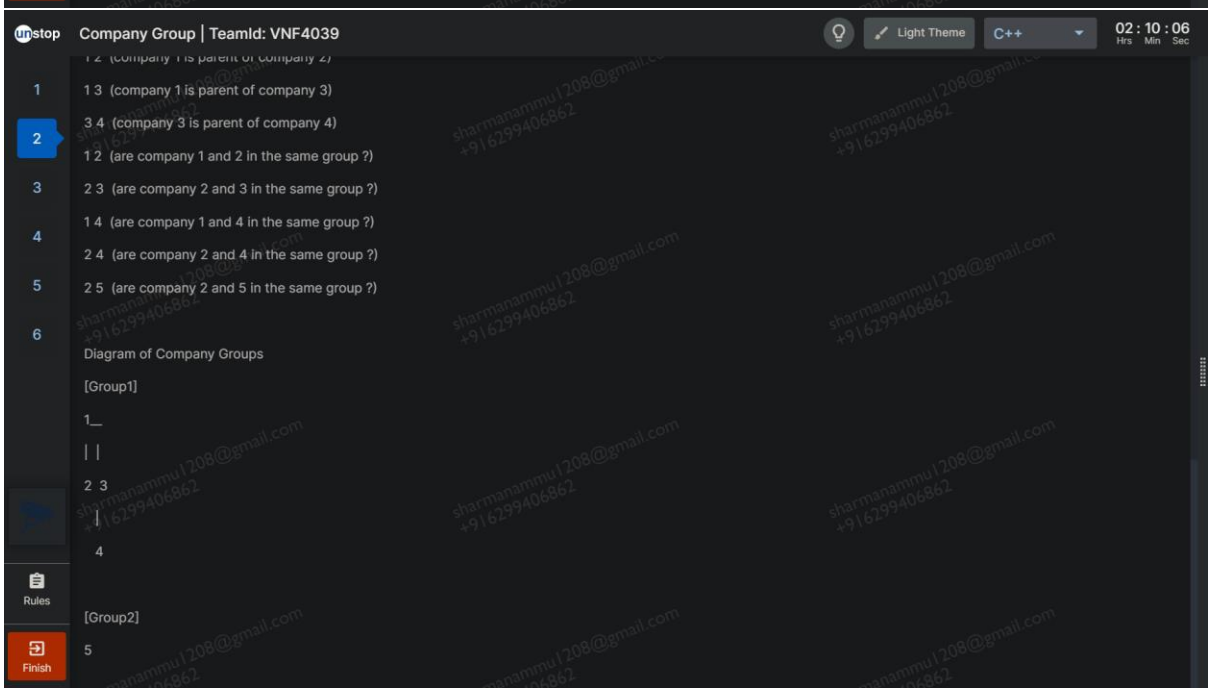

unstop
Shuffled String | TeamId: VNF4039
Light Theme
C++
02 : 10 : 37
Hrs Min Sec
1
2
3
4
5
6
Problem Statement
Mr. Agoji is given a shuffled string made by randomly shuffling a special string.
A sting will be called special only if it is formed by joining some special words any number of times. Special words are mapping of numbers (0 <= number < 10) to their words, f or example, mapping of '0' to 'zero', mapping of '1' to 'one', and so on.
Mr. Agoji is asked to convert the shuffled string to the smallest special number. A special number is a number formed using numbers (0 <= number < 10) without any leading ze roes.
Mr. Agoji being not so good with numbers and strings ask for your help.
Input Format
The first line of the input will contain T, the number of test cases,
1 <= T <= 100
For each test case,
There will be a, s shuffled string, on a separate line
1 <= s.length <= 100000
Output Format
For each test case, on the new line, the Smallest special number is in the string format.
Some notes on output:
Shuffled string will always be able to convert into at least one valid special string.
Shuffled string will only contain small English alphabets.
If a shuffled string contains only zeroes, you should output "0".
Rules
Finish

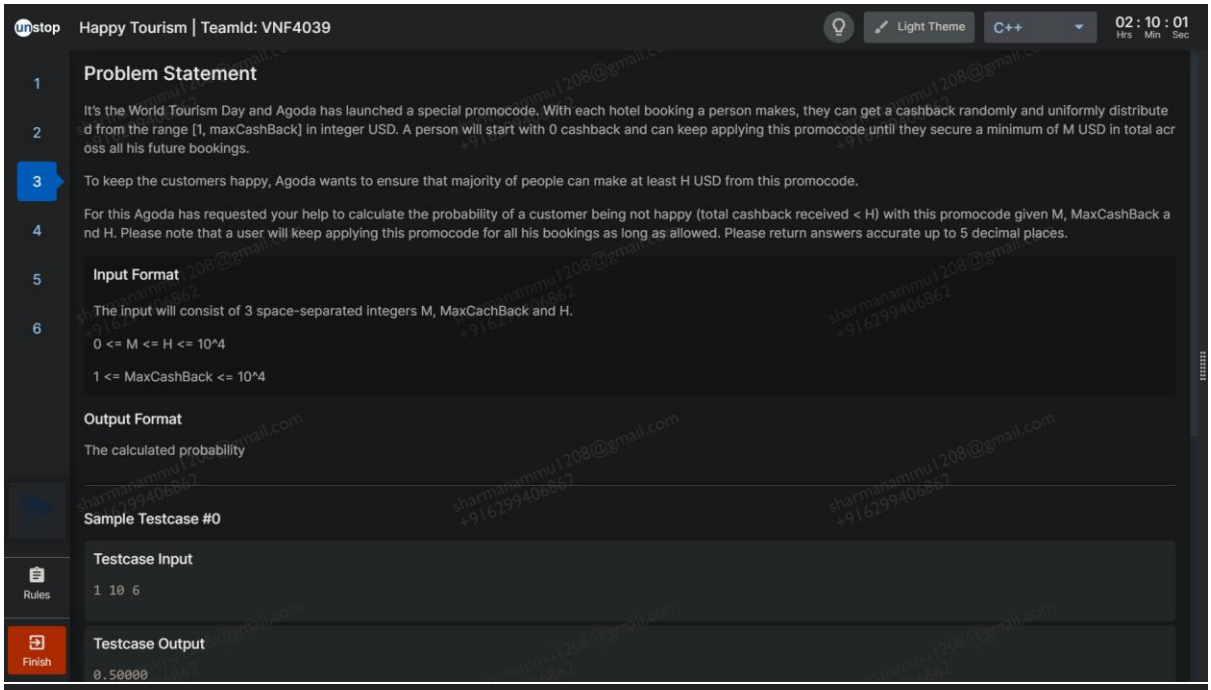
unstop
Shuffled String | TeamId: VNF4039
Light Theme
C++
02 : 10 : 29
Hrs Min Sec
1
2
3
4
5
6
Output Format
For each test case, on the new line, the Smallest special number is in the string format.
Some notes on output:
Shuffled string will always be able to convert into at least one valid special string.
Shuffled string will only contain small English alphabets.
If a shuffled string contains only zeroes, you should output "0".
Sample Testcase #0
Testcase Input
2
“ewtooetzrowon”
"ttnrwoooeeefurh"
Testcase Output
1022
1234
Explanation
Test case 1:
One of special string for shuffled string "ewtooetzrowon", will be "zeroonetwotwo".
Hence, the smallest special number would be 1022.
Rules
Finish

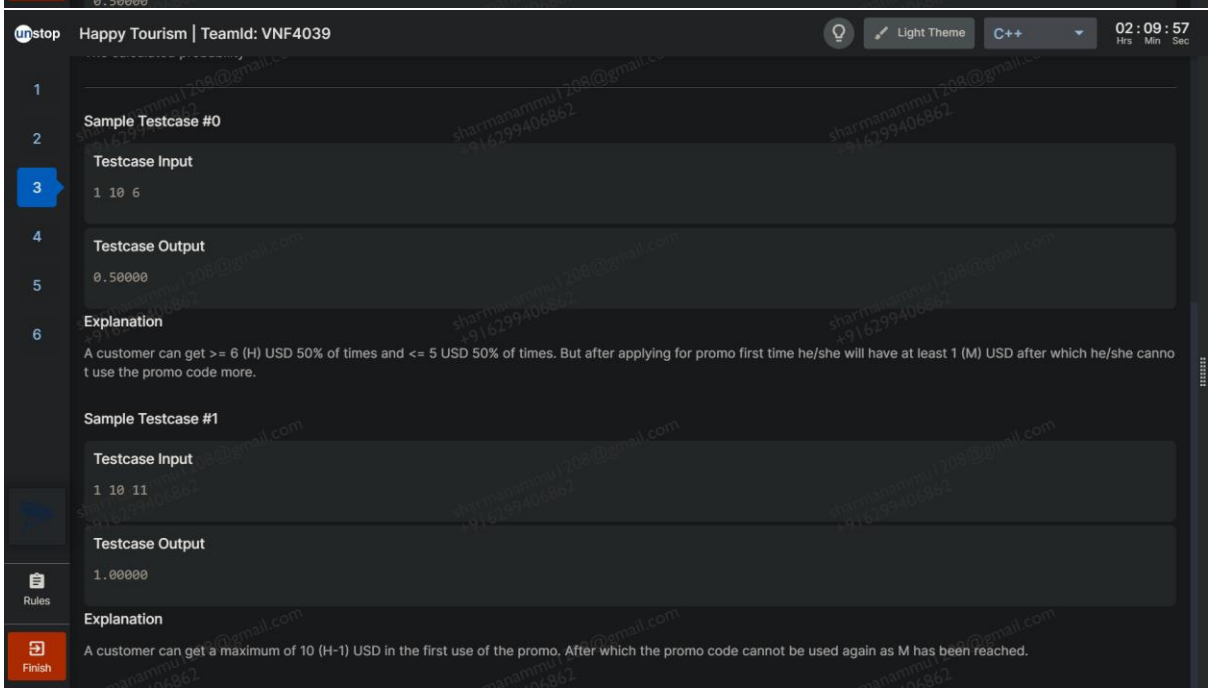

unstop
Company Group | TeamId: VNF4039
Light Theme
C++
02 : 10 : 23
Hrs Min Sec
1
2
3
4
5
6
Problem Statement
Booking Holdings is looking to acquire a new company for the group. Joe is the one assigned to gather the information in the market.
One of the most popular questions for Joe is whether these two companies are in the same company group or not.
Your job is to help Joe answer this question quickly.
Input Format
line 1: C, R, Q - number of companies, number of relationships, number of questions
line 2: (R+1): ai, bi - pair of parent company and subsidiary, means that company ai is a parent company of company bi
line (R+2) - (R+2+Q): xj, yj - asking if xj and yi are in the same group not
Limitation:
0 < = C <= 100,000
0 <= R <= C(C-1)/2
0 <= Q <= 100,000
1 <= ai, bi, xj, yj <= C
Output Format
Q lines, each line show either
- "YES" when associated xj and yj are in the same group
- "NO" when associated xj and yj are not in the same group
Rules
Finish


unstop
Company Group | TeamId: VNF4039
Light Theme
C++
02 : 10 : 15
Hrs Min Sec
1
2
3
4
5
6
Testcase Input
5 3 5
1 2
1 3
3 4
1 2
2 3
1 4
2 4
2 5
Testcase Output
YES
YES
YES
YES
NO
Explanation
Input explanation
5 3 5 (5 companies, 3 relationships, 5 questions)
1 2 (company 1 is parent of company 2)
1 3 (company 1 is parent of company 3)
3 4 (company 3 is parent of company 4)
1 2 (are company 1 and 2 in the same group ?)
2 3 (are company 2 and 3 in the same group ?)
1 4 (are company 1 and 4 in the same group ?)
Rules
Finish

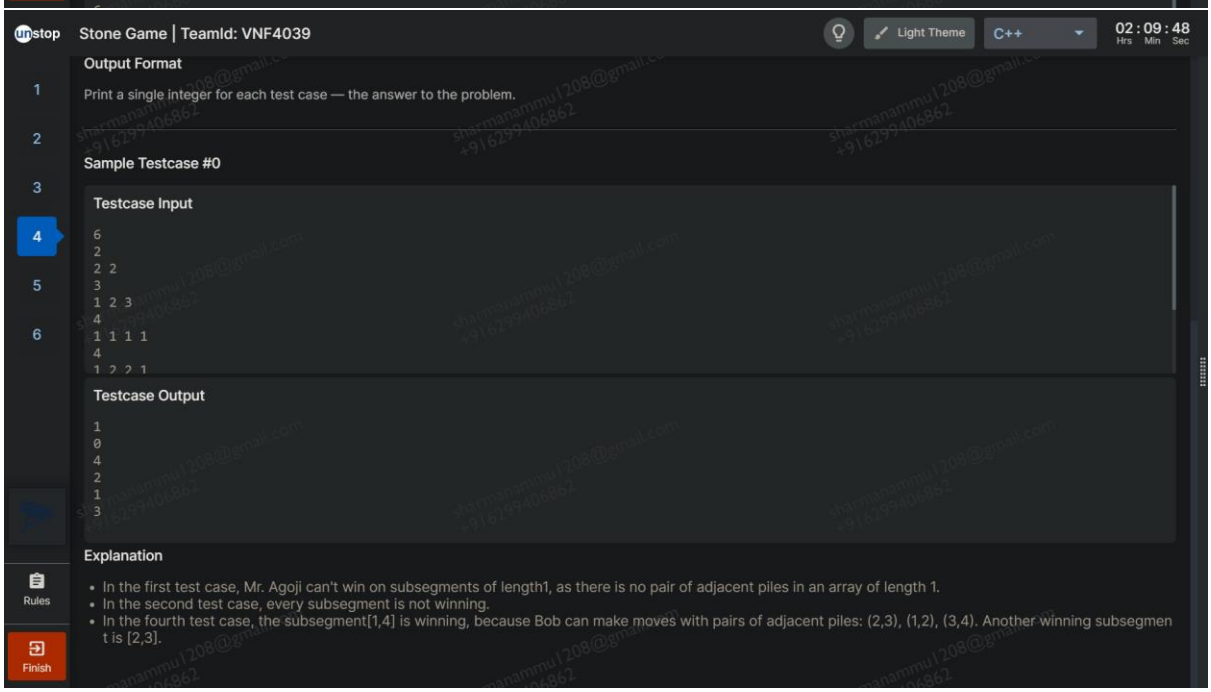

unstop
Company Group | TeamId: VNF4039
Light Theme
C++
02 : 10 : 10
Hrs Min Sec
1
2
3
4
5
6
Input explanation
5 3 5 (5 companies, 3 relationships, 5 questions)
1 2 (company 1 is parent of company 2)
1 3 (company 1 is parent of company 3)
3 4 (company 3 is parent of company 4)
1 2 (are company 1 and 2 in the same group ?)
2 3 (are company 2 and 3 in the same group ?)
1 4 (are company 1 and 4 in the same group ?)
2 4 (are company 2 and 4 in the same group ?)
2 5 (are company 2 and 5 in the same group ?)
Diagram of Company Groups
[Group1]
1
2 3
4
Rules
Finish

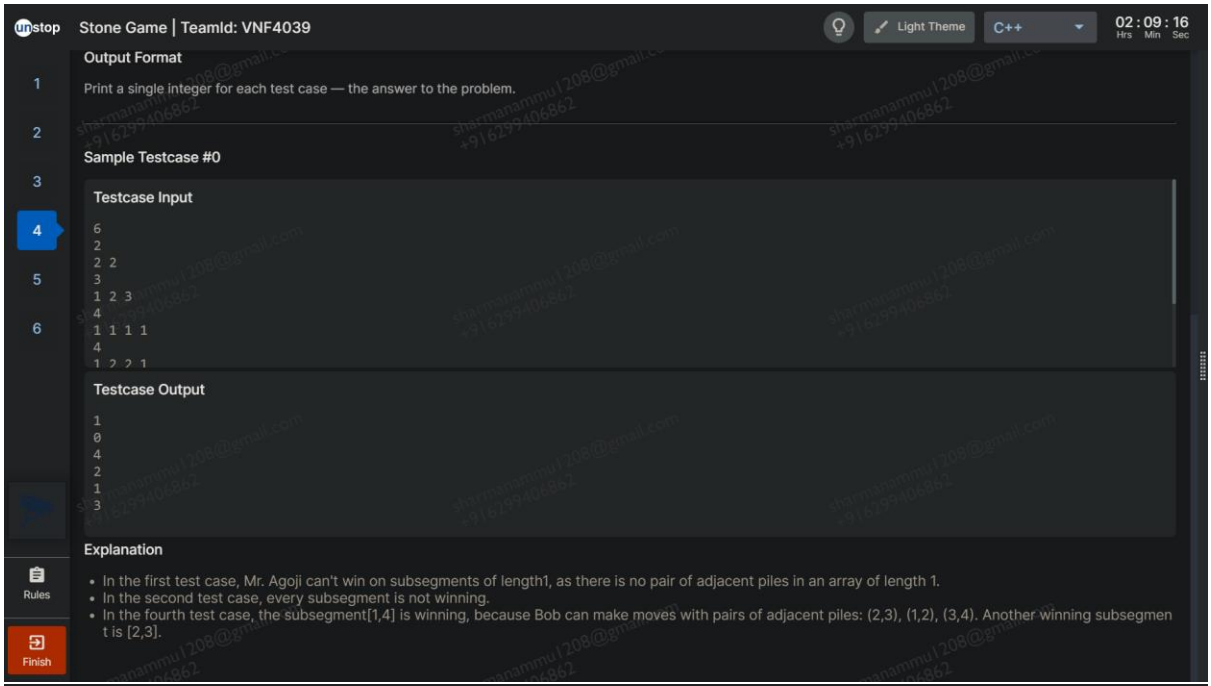

unstop
Company Group | TeamId: VNF4039
Light Theme
C++
02 : 10 : 06
Hrs Min Sec
1
2
3
4
5
6
1 3 (company 1 is parent of company 3)
3 4 (company 3 is parent of company 4)
1 2 (are company 1 and 2 in the same group ?)
2 3 (are company 2 and 3 in the same group ?)
1 4 (are company 1 and 4 in the same group ?)
2 4 (are company 2 and 4 in the same group ?)
2 5 (are company 2 and 5 in the same group ?)
Diagram of Company Groups
[Group1]
1
2 3
4
[Group2]
5
Rules
Finish

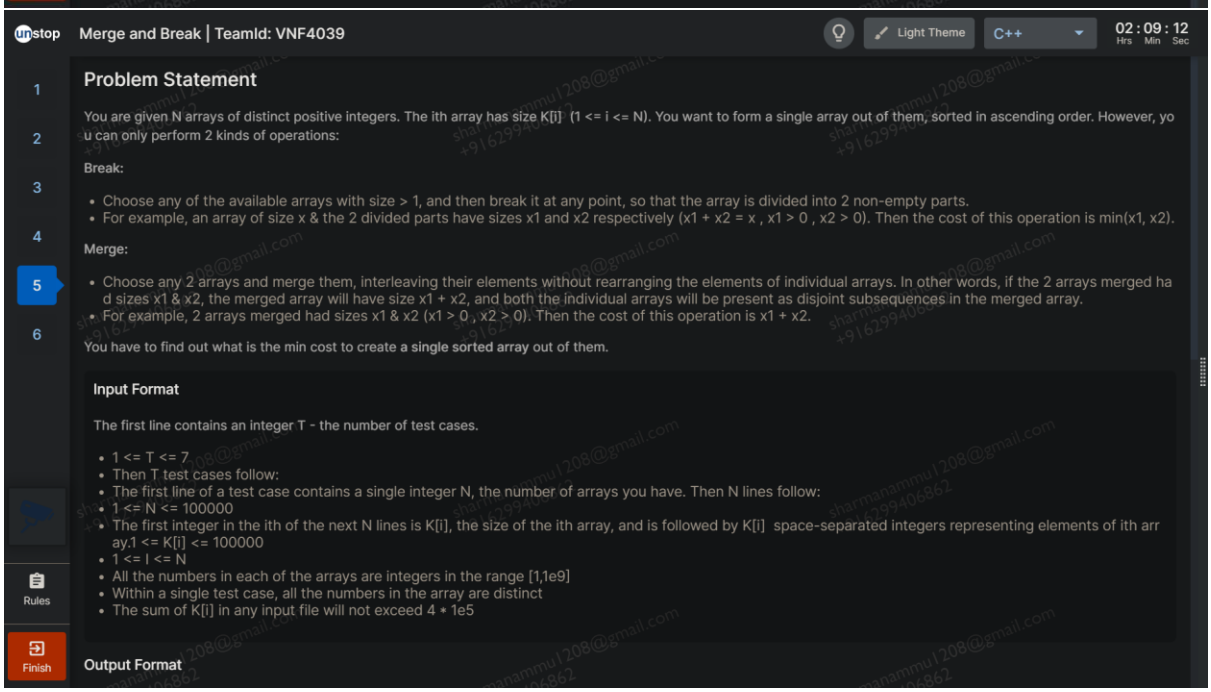

unstop
Happy Tourism | TeamId: VNF4039
Light Theme
C++
02 : 10 : 01
Hrs Min Sec
1
2
3
4
5
6
Problem Statement
It's the World Tourism Day and Agoda has launched a special promocode. With each hotel booking a person makes, they can get a cashback randomly and uniformly distributed from the range [1, maxCashBack] in integer USD. A person will start with 0 cashback and can keep applying this promocode until they secure a minimum of M USD in total across all his future bookings.
To keep the customers happy, Agoda wants to ensure that majority of people can make at least H USD from this promocode.
For this Agoda has requested your help to calculate the probability of a customer being not happy (total cashback received < H) with this promocode given M, MaxCashBack and H. Please note that a user will keep applying this promocode for all his bookings as long as allowed. Please return answers accurate up to 5 decimal places.
Input Format
The input will consist of 3 space-separated integers M, MaxCachBack and H.
0 <= M <= H <= 10^4
1 <= MaxCashBack <= 10^4
Output Format
The calculated probability
Sample Testcase #0
Testcase Input
1 10 6
Testcase Output
0.50000
Rules
Finish

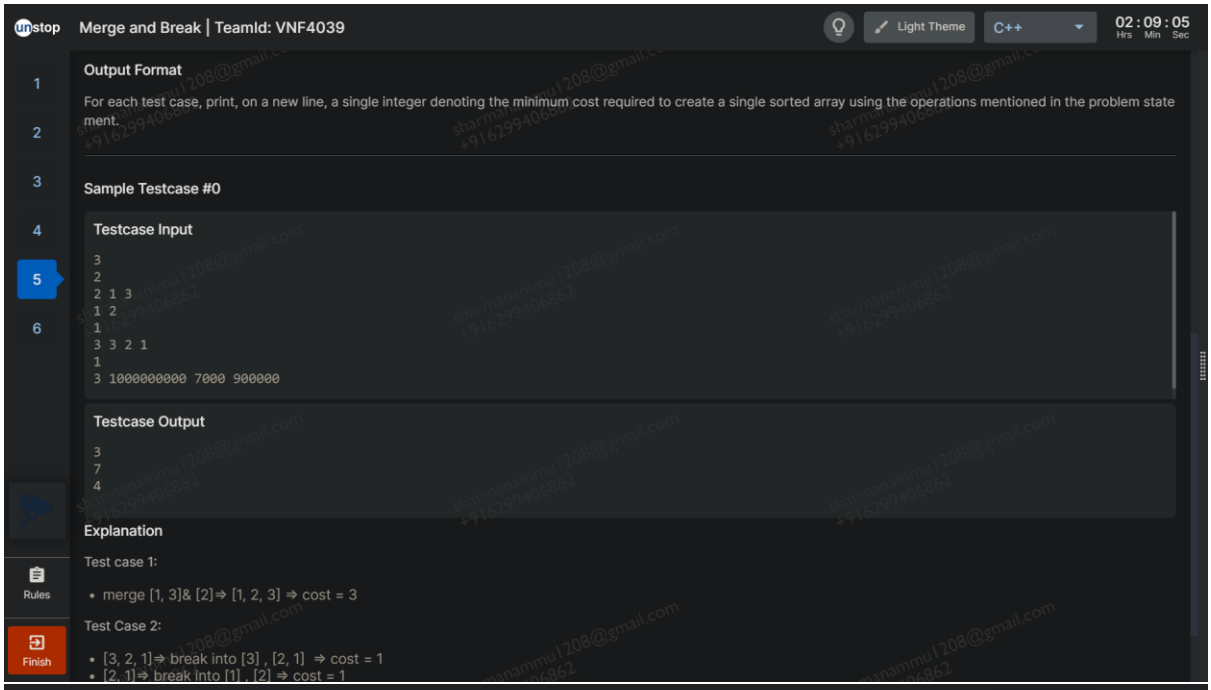

unstop
Happy Tourism | TeamId: VNF4039
Light Theme
C++
02 : 09 : 57
Hrs Min Sec
1
2
3
4
5
6
Sample Testcase #0
Testcase Input
1 10 6
Testcase Output
0.50000
Explanation
A customer can get >= 6 (H) USD 50% of times and <= 5 USD 50% of times. But after applying for promo first time he/she will have at least 1 (M) USD after which he/she cannot use the promo code more.
Sample Testcase #1
Testcase Input
1 10 11
Testcase Output
1.00000
Explanation
A customer can get a maximum of 10 (H-1) USD in the first use of the promo. After which the promo code cannot be used again as M has been reached.
Rules
Finish


unstop
Stone Game | TeamId: VNF4039
Light Theme
C++
02 : 09 : 52
Hrs Min Sec
1
2
3
4
5
6
Problem Statement
Mr. Agoji was bored in lockdown, so he designed a game for himself.
The game is played on a sequence of piles of stones. Let's say there are N integers s1, s2, ... , sn, describing the number of stones in each pile. On each turn, Mr. Agoji picks a pair of non-empty adjacent piles I and i+1 and takes 1 stone from each. If a pile(ith) becomes empty, then its adjacent piles(i-1th and i+1th) do not become adjacent. The game ends when Mr. Agoji can't make a turn anymore. He wins if he can clear all the piles.
We consider a sequence of piles winning if Mr. Agoji can start with it and win the game. You are given a sequence of integers s1, s2, s3, ..., sn. You have to find out how many s ubsegments of this sequence are winning. A subsegment is defined as a continuous sequence from L to R, i.e., sL, sL+1, ..., sR, given 1 <= L < R <= N.
Input Format
The First line of the input contains numerous test cases, T
1 <= T <= 10^5
The next T test cases follow,
An integer N, denoting the number of piles of stones
1 <= N <= 10^5
Next line contains N integers, s1, s2, s3,....., sn describing number of stones in each pile
0 <= si <= 10^9
Output Format
Print a single integer for each test case — the answer to the problem.
Rules
Finish
Sample Testcase #0
Testcase Input


unstop
Stone Game | TeamId: VNF4039
Light Theme
C++
02 : 09 : 48
Hrs Min Sec
Output Format
Print a single integer for each test case — the answer to the problem.
Sample Testcase #0
Testcase Input
6
2
2 2
3
1 2 3
4
1 1 1 1
4
1 2 2 1
Testcase Output
1
0
4
2
1
3
Explanation
In the first test case, Mr. Agoji can't win on subsegments of length1, as there is no pair of adjacent piles in an array of length 1.
In the second test case, every subsegment is not winning.
In the fourth test case, the subsegment[1,4] is winning, because Bob can make moves with pairs of adjacent piles: (2,3), (1,2), (3,4). Another winning subsegmen t is [2,3].
Rules
Finish


unstop
Stone Game | TeamId: VNF4039
Light Theme
C++
02 : 09 : 16
Hrs Min Sec
Output Format
Print a single integer for each test case — the answer to the problem.
Sample Testcase #0
Testcase Input
6
2
2 2
3
1 2 3
4
1 1 1 1
4
1 2 2 1
Testcase Output
1
0
4
2
1
3
Explanation
In the first test case, Mr. Agoji can't win on subsegments of length1, as there is no pair of adjacent piles in an array of length 1.
In the second test case, every subsegment is not winning.
In the fourth test case, the subsegment[1,4] is winning, because Bob can make moves with pairs of adjacent piles: (2,3), (1,2), (3,4). Another winning subsegmen t is [2,3].
Rules
Finish


unstop
Merge and Break | TeamId: VNF4039
Light Theme
C++
02 : 09 : 12
Hrs Min Sec
Problem Statement
You are given N arrays of distinct positive integers. The ith array has size K[i] (1 <= i <= N). You want to form a single array out of them, sorted in ascending order. However, yo u can only perform 2 kinds of operations:
Break:
Choose any of the available arrays with size > 1, and then break it at any point, so that the array is divided into 2 non-empty parts.
For example, an array of size x & the 2 divided parts have sizes x1 and x2 respectively (x1 + x2 = x , x1 > 0 , x2 > 0). Then the cost of this operation is min(x1, x2).
Merge:
Choose any 2 arrays and merge them, interleaving their elements without rearranging the elements of individual arrays. In other words, if the 2 arrays merged ha d sizes x1 & x2, the merged array will have size x1 + x2, and both the individual arrays will be present as disjoint subsequences in the merged array.
For example, 2 arrays merged had sizes x1 & x2 (x1 > 0 , x2 > 0). Then the cost of this operation is x1 + x2.
You have to find out what is the min cost to create a single sorted array out of them.
Input Format
The first line contains an integer T - the number of test cases.
1 <= T <= 7
Then T test cases follow:
The first line of a test case contains a single integer N, the number of arrays you have. Then N lines follow:
1 <= N <= 100000
The first integer in the ith of the next N lines is K[i], the size of the ith array, and is followed by K[i] space-separated integers representing elements of ith arr ay.1 <= K[i] <= 100000
1 <= I <= N
All the numbers in each of the arrays are integers in the range [1,1e9]
Within a single test case, all the numbers in the array are distinct
The sum of K[i] in any input file will not exceed 4 * 1e5
Output Format
Rules
Finish


unstop
Merge and Break | TeamId: VNF4039
Light Theme
C++
02 : 09 : 05
Hrs Min Sec
1
2
3
4
5
6
Output Format
For each test case, print, on a new line, a single integer denoting the minimum cost required to create a single sorted array using the operations mentioned in the problem state ment.
Sample Testcase #0
Testcase Input
3
2
2 1 3
1 2
1
3 3 2 1
1
3 1000000000 7000 900000
Testcase Output
3
7
4
Explanation
Test case 1:
• merge [1, 3]& [2]⇒ [1, 2, 3] ⇒ cost = 3
Test Case 2:
• [3, 2, 1]⇒ break into [3] , [2, 1] ⇒ cost = 1
• [2, 1]⇒ break into [1] , [2] ⇒ cost = 1
Rules
Finish


unstop
Merge and Break | TeamId: VNF4039
Light Theme
C++
02 : 09 : 01
Hrs Min Sec
1
2
3
4
5
6
Sample Testcase #0
Testcase Input
3
2
2 1 3
1 2
1
3 3 2 1
1
3 1000000000 7000 900000
Testcase Output
3
7
4
Explanation
Test case 1:
• merge [1, 3]& [2]⇒ [1, 2, 3] ⇒ cost = 3
Test Case 2:
• [3, 2, 1]⇒ break into [3] , [2, 1] ⇒ cost = 1
• [2, 1]⇒ break into [1] , [2] ⇒ cost = 1
• merge [1]& [2] ⇒ [1, 2] ⇒ cost = 2
• merge [1, 2] & [3] ⇒ [1, 2, 3] ⇒ cost = 3
• Total cost = 7
Rules
Finish

1 2 3 4 5 6

Problem Statement

Mr. Agoji plans to travel to a new city for his vacation. There are N number of hotels available in that city. Each hotel has information on the price/night and rating. Mr. Agoji has a tight budget for his trip, so he can't afford to book a costly hotel but wants the best experience in his budget range, so he plans different budgets for his trip.

There are Q different budget options for hotel booking in his budget plans. Mr. Agoji, who is not that good at calculations, has asked for your help to decide on the best-rated h otel in his budget.

You are given a list of hotel names, the price per night, and the hotel's rating. For different budget ranges, you have to find the best-rated hotel for Mr. Agoji.

Note, that if two hotels in that range have the same rating, you should output the one with the lowest booking price per night, and no two hotels should have the same price pe r night.

Input Format

The first line contains an integer T - the number of test cases.

- *1 <= T <= 7*

Then T test cases follow:

- The first line of a test case contains a single integer N, the number of arrays you have and an integer Q, the number of budget ranges. Then N lines follow:
  - 1 <= N <= 100000
  - 1 <= Q <= 100000
- A string s, the hotel name, integer p, price of the hotel per night and a double r, rating of the hotel. These will be space separated. Note that hotel name does not contain any spaces.
  - 1 <= s.length <= 1000
  - 1 <= p <=100000
  - 1 <= r <= 10.0
- Next Q lines follow:
  Two space-separated integers L, the lower limit of the budget range, and U, the upper limit of the budget range
  - 1 <= U <= 100000
  - 1 <= L <= U
  - Note that the budget range is specifically for hotel booking and not for the whole trip.

Rules Finish

unstop Best Hotel | TeamId: VNF4039 Light Theme C++ 02 : 08 : 35 Hrs Min Sec

1 2 3 4 5 6

For each test case, for each query, print on a new line, a string denoting the best-rated hotel's name in the budget range of the query.

Sample Testcase #0

Testcase Input

```
1
3 3
a 1000 8.1
b 800 7.6
c 1200 7.9
600 1400
700 900
300 12000
```

Testcase Output

```
a
b
a
```

Explanation

Test case 1:

- Query 1:
  - The best rated hotel for the range [600, 1400] is a with rating 8.1
- Query 2:
  - The best rated hotel for the range [700, 900] is a with rating 7.9
- Query 3:
  - The best rated hotel for the range [300, 12000] is a with rating 8.1

Rules Finish