

Mock Test > chetanabmpatil@gmail.com

Full Chetana Patil Name: chetanabmpatil@gmail.com Email: **Mock Test** Test Name: Taken 5 Apr 2024 23:55:28 IST On: 23 min 38 sec/ 24 min Time Taken: Resume: https://hackerrank-

0% IST

scored in Mock Test in 23 min 38 sec on 5 Apr 2024 23:55:28

0/90

 $resumes.s3. amazonaws.com/9410269/3lqHdh5uG5EoFRbiHHda9AxW0OoIT_PPY5jpC40pc_QQwn18ApZAttnF11gab6S2ug/Chetana_s_Resume.pdf$

Linkedin: https://www.linkedin.com/in/chetana-patil-497236193/

Ankush Invited

by:

Invited 5 Apr 2024 23:55:07 IST

on:

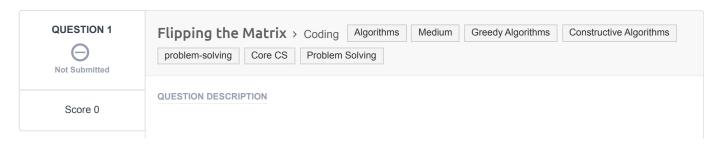
Skills Score:

Tags Score: Algorithms 0/90 Constructive Algorithms 0/90 Core CS 0/90 Greedy Algorithms 0/90 Medium 0/90 Problem Solving 0/90 problem-solving 0/90

Recruiter/Team Comments:

No Comments.





Sean invented a game involving a $2n \times 2n$ matrix where each cell of the matrix contains an integer. He can reverse any of its rows or columns any number of times. The goal of the game is to maximize the sum of the elements in the $n \times n$ submatrix located in the upper-left quadrant of the matrix.

Given the initial configurations for q matrices, help Sean reverse the rows and columns of each matrix in the best possible way so that the sum of the elements in the matrix's upper-left quadrant is maximal.

Example

```
matrix = \left[ \left[ 1, 2 \right], \left[ 3, 4 \right] \right]
```

```
1 2
3 4
```

It is 2×2 and we want to maximize the top left quadrant, a 1×1 matrix. Reverse row 1:

```
1 2
4 3
```

And now reverse column 0:

```
4 2
1 3
```

The maximal sum is 4.

Function Description

Complete the flippingMatrix function in the editor below.

flippingMatrix has the following parameters:

- int matrix[2n][2n]: a 2-dimensional array of integers

Returns

- int: the maximum sum possible.

Input Format

The first line contains an integer q, the number of queries.

The next q sets of lines are in the following format:

- The first line of each query contains an integer, n.
- Each of the next 2n lines contains 2n space-separated integers matrix[i][j] in row i of the matrix.

Constraints

- $1 \le q \le 16$
- $1 \le n \le 128$
- $0 \leq matrix[i][j] \leq 4096$, where $0 \leq i, j < 2n$.

Sample Input

Sample Output

Explanation

Start out with the following $2n \times 2n$ matrix:

$$matrix = egin{bmatrix} 112 & 42 & 83 & 119 \ 56 & 125 & 56 & 49 \ 15 & 78 & 101 & 43 \ 62 & 98 & 114 & 108 \end{bmatrix}$$

Perform the following operations to maximize the sum of the $n \times n$ submatrix in the upper-left quadrant:

2. Reverse column 2 ([83, 56, 101, 114] ightarrow [114, 101, 56, 83]), resulting in the matrix:

$$matrix = \begin{bmatrix} 112 & 42 & 114 & 119 \\ 56 & 125 & 101 & 49 \\ 15 & 78 & 56 & 43 \\ 62 & 98 & 83 & 108 \end{bmatrix}$$

3. Reverse row 0 ([112, 42, 114, 119] \rightarrow [119, 114, 42, 112]), resulting in the matrix:

$$matrix = egin{bmatrix} 119 & 114 & 42 & 112 \ 56 & 125 & 101 & 49 \ 15 & 78 & 56 & 43 \ 62 & 98 & 83 & 108 \ \end{bmatrix}$$

The sum of values in the n imes n submatrix in the upper-left quadrant is 119+114+56+125=414 .

CANDIDATE ANSWER

No answer was submitted for this question. Showing compiled/saved versions.

Language used: Java 8

PDF generated at: 5 Apr 2024 18:51:45 UTC