

ARRAY : Video - 169



CodeStorywithMIK

Leetcode
- 2943

Medium



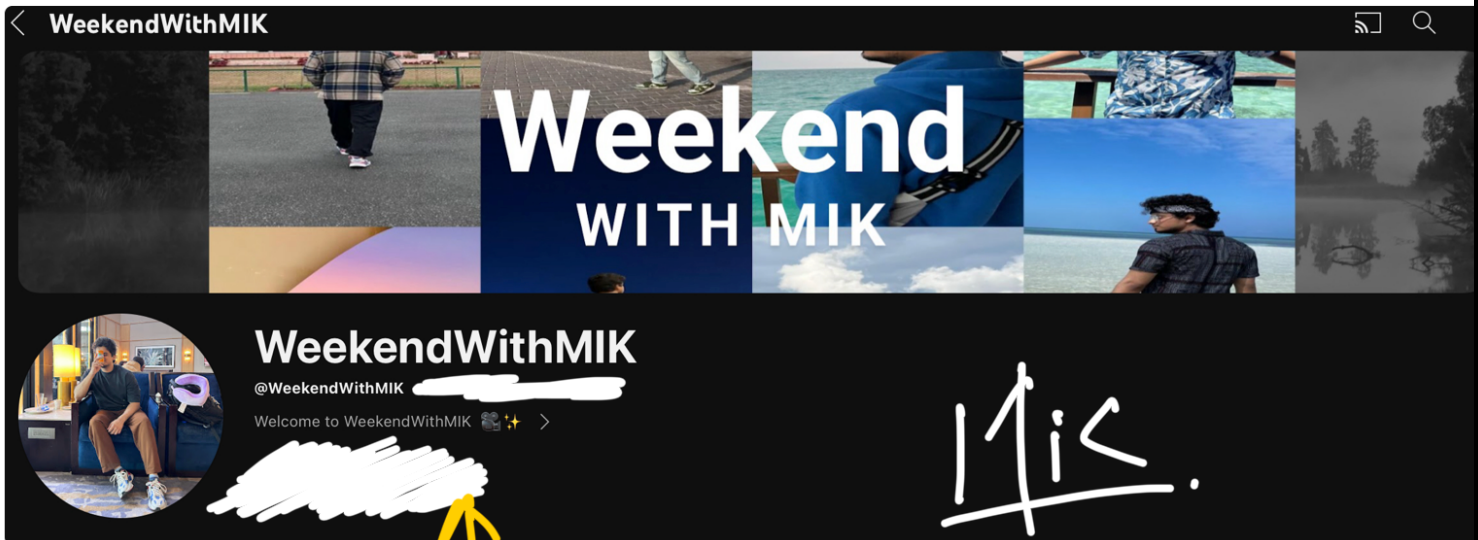
codestorywithmik



CSwithMIK



codestorywithMIK



They this channel to

see "Life behind the **scenes + Tech News**

Motivation -

If you can do focused study for even 45 minutes, you are already on the path to the growth.



MIK...

2943. Maximize Area of Square Hole in Grid

Medium

Topics

Companies

Hint

You are given the two integers, n and m and two integer arrays, `hBars` and `vBars`. The grid has $n + 2$ horizontal and $m + 2$ vertical bars, creating 1×1 unit cells. The bars are indexed starting from 1.

You can **remove** some of the bars in `hBars` from horizontal bars and some of the bars in `vBars` from vertical bars. Note that other bars are fixed and cannot be removed.

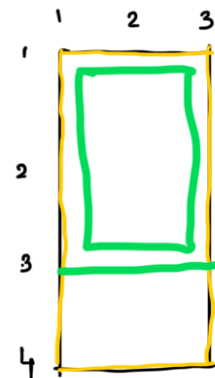
Return an integer denoting the **maximum area** of a *square-shaped* hole in the grid, after removing some bars (possibly none).

Example:-

$n = 2, m = 1$

$hBars = \{2, 3\}$

$vBars = \{2\}$



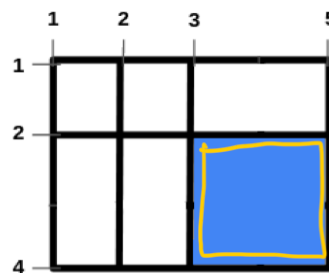
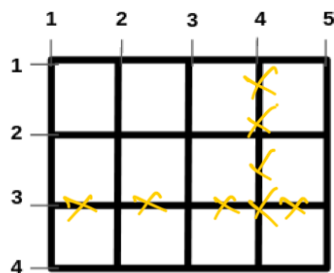
Output: 4 ←

$$n=2$$

$$m=3$$

$$hBars = \{2, 3\}$$

$$vBars = \{2, 4\}$$



$$2 \times 2 = 4$$

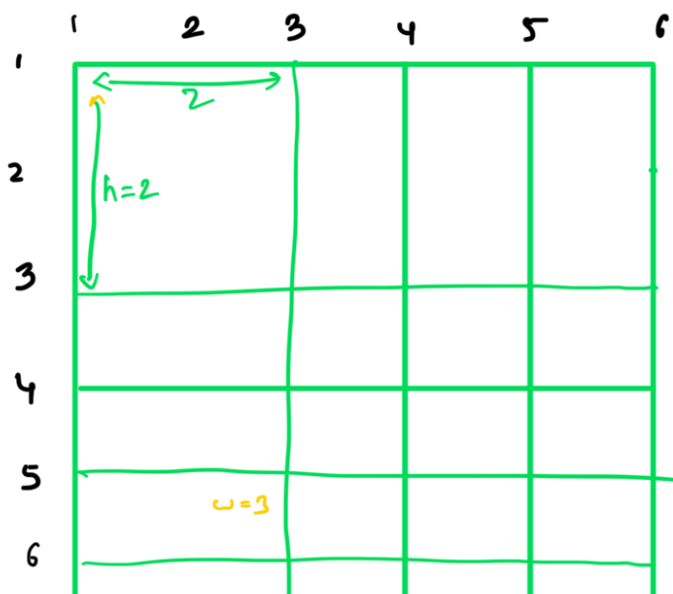
Thought Process

Intuition

$$vBars = \{2, 3, 5\}$$

$$hBars = \{2, 6\}$$

$$3 \times 3 = 9$$



3x



$$2 \text{ vertBars} = 3 \text{ width}$$

$$2 \text{ hBars} = 3 \text{ height}$$

7

$$x \text{ Bars} = (x+1) \text{ width/height}$$

width ↑

remove

vBars

→ consecutive Bars removal.

height ↑

remove

hBars

→ consecutive Bars removal.

Observation : → Sort the inputs.

→ I will find "longest consecutive subarray" → length
in hBars
vBars

$$\begin{cases} x \text{ vBars} &= (x+1) \text{ width (vBars)} \\ y \text{ hBars} &= (y+1) \text{ height (hBars)} \end{cases}$$

$$\text{side} = \min(x+1, y+1)$$

Return side * side.

$$\text{width} = 3$$

$$\text{height} = 2$$

$$\min(\text{wid}, h) = \min(3, 2) = 2$$

$$\text{Sq} = 2 \times 2 = 4$$

$$T.C = O(h \log h + v \log v + \underline{h + v}).$$

$$S.C = O_2(1).$$

the 1990s, the number of people in the UK who are employed in the public sector has increased by 1.5 million (1990–1999) and the number of people in the private sector has increased by 1.7 million (1990–1999).

There is a growing emphasis on the need to improve the quality of care and services provided by the public sector. This has led to a number of initiatives, including the introduction of the Health Care Act 1999, the introduction of the NHS Constitution, and the introduction of the NHS Performance Framework. These initiatives have led to a number of changes in the way that the public sector is run, including the introduction of new management structures, the introduction of new performance measures, and the introduction of new funding mechanisms.

One of the key challenges facing the public sector is the need to improve the quality of care and services provided. This is a complex task, as it involves a number of different factors, including the quality of the staff, the quality of the facilities, and the quality of the services. There are a number of ways in which the quality of care and services can be improved, including the introduction of new management structures, the introduction of new performance measures, and the introduction of new funding mechanisms.

Another key challenge facing the public sector is the need to improve the efficiency of the system. This is a complex task, as it involves a number of different factors, including the need to reduce costs, the need to improve the quality of care and services, and the need to improve the quality of the staff. There are a number of ways in which the efficiency of the system can be improved, including the introduction of new management structures, the introduction of new performance measures, and the introduction of new funding mechanisms.

A third key challenge facing the public sector is the need to improve the quality of the staff. This is a complex task, as it involves a number of different factors, including the need to improve the quality of the training, the need to improve the quality of the supervision, and the need to improve the quality of the support. There are a number of ways in which the quality of the staff can be improved, including the introduction of new management structures, the introduction of new performance measures, and the introduction of new funding mechanisms.

There are a number of ways in which the public sector can be improved, including the introduction of new management structures, the introduction of new performance measures, and the introduction of new funding mechanisms. These initiatives have led to a number of changes in the way that the public sector is run, including the introduction of new management structures, the introduction of new performance measures, and the introduction of new funding mechanisms.

The public sector is a complex system, and it is a complex task to improve it. There are a number of different factors that can affect the quality of care and services, and there are a number of different ways in which the system can be improved. It is important to continue to work on these issues, as the public sector is a vital part of our society.

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