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832. Flipping an Image

Solved

Easy | Topics | Companies

Given an `n x n` binary matrix `image`, flip the image **horizontally**, then invert it, and return *the resulting image*.

To flip an image horizontally means that each row of the image is reversed.

- For example, flipping `[1,1,0]` horizontally results in `[0,1,1]`.

To invert an image means that each `0` is replaced by `1`, and each `1` is replaced by `0`.

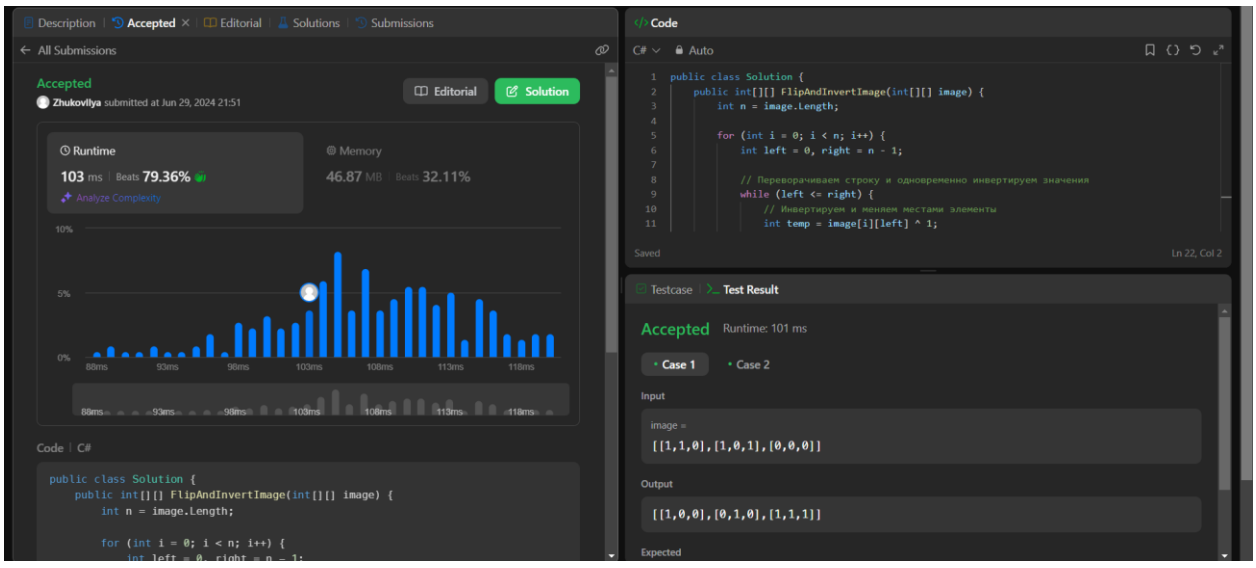
- For example, inverting `[0,1,1]` results in `[1,0,0]`.

Example 1:

```
Input: image = [[1,1,0],[1,0,1],[0,0,0]]
Output: [[1,0,0],[0,1,0],[1,1,1]]
Explanation: First reverse each row: [[0,1,1],[1,0,1],[0,0,0]].
Then, invert the image: [[1,0,0],[0,1,0],[1,1,1]]
```

Example 2:

```
Input: image = [[1,1,0,0],[1,0,0,1],[0,1,1,1],[1,0,1,0]]
Output: [[1,1,0,0],[0,1,1,0],[0,0,0,1],[1,0,1,0]]
Explanation: First reverse each row: [[0,0,1,1],[1,0,0,1],[1,1,1,0],[0,1,0,1]].
Then invert the image: [[1,1,0,0],[0,1,1,0],[0,0,0,1],[1,0,1,0]]
```



Код:

```
public class Solution
{
    public int[][] FlipAndInvertImage(int[][] image)
    {
        int n = image.Length;
```

```
        for (int i = 0; i < n; i++)
        {
            int left = 0, right = n - 1;

            // Переворачиваем строку и одновременно инвертируем значения
            while (left <= right)
            {
                // Инвертируем и меняем местами элементы
                int temp = image[i][left] ^ 1;
                image[i][left] = image[i][right] ^ 1;
                image[i][right] = temp;

                left++;
                right--;
            }
        }

        return image;
    }
}
```