5655. Largest Submatrix With Rearrangements

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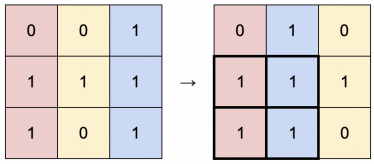
You are given a binary matrix `matrix` of size `m x n`, and you are allowed to rearrange the **columns** of the `matrix` in any order.

Return *the area of the largest submatrix within* `matrix` *where* ***every*** *element of the submatrix is* `1` *after reordering the columns optimally.*

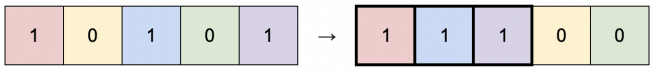
User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Medium

Example 1:




```
Input: matrix = [[0,0,1],[1,1,1],[1,0,1]]
Output: 4
Explanation: You can rearrange the columns as shown above.
The largest submatrix of 1s, in bold, has an area of 4.
```

Example 2:




```
Input: matrix = [[1,0,1,0,1]]
Output: 3
Explanation: You can rearrange the columns as shown above.
The largest submatrix of 1s, in bold, has an area of 3.
```

Example 3:

```
Input: matrix = [[1,1,0],[1,0,1]]
Output: 2
Explanation: Notice that you must rearrange entire columns, and there is no way to make a submatrix of 1s larger than an area o
```

Example 4:

```
Input: matrix = [[0,0],[0,0]]
Output: 0
Explanation: As there are no 1s, no submatrix of 1s can be formed and the area is 0.
```

Constraints:

- `m == matrix.length`
- `n == matrix[i].length`
- `1 <= m * n <= 10^5`
- `matrix[i][j]` is `0` or `1`.

JavaScript

```
/**
 * @param {number[][]} matrix
 * @return {number}
 */
var largestSubmatrix = function(matrix) {
```