

You have a 2D binary matrix that's filled with 0s and 1s. In the matrix, find the largest square that contains only 1s and return its area.

Example

For

```
matrix = [  
    ['1', '0', '1', '1', '1'],  
    ['1', '0', '1', '1', '1'],  
    ['1', '1', '1', '1', '1'],  
    ['1', '0', '0', '1', '0'],  
    ['1', '0', '0', '1', '0']  
]
```

the output should be
`maximalSquare(matrix) = 9.`

Input/Output

- **[time limit] 4000ms (py3)**
- **[input] array.array.char matrix**

Guaranteed constraints:

$0 \leq \text{matrix.length} \leq 100,$
 $1 \leq \text{matrix}[i].\text{length} \leq 100,$
 $0 \leq \text{matrix}[i][j] \leq 1.$

- **[output] integer**

An integer that represents the area of the largest square in the given matrix that is composed only of 1s.