2125. Number of Laser Beams in a Bank

Solved

Medium | Topics | Companies | Hint

Anti-theft security devices are activated inside a bank. You are given a **0-indexed** binary string array `bank` representing the floor plan of the bank, which is an `m x n` 2D matrix. `bank[i]` represents the i^{th} row, consisting of `'0'`s and `'1'`s. `'0'` means the cell is empty, while `'1'` means the cell has a security device.

There is **one** laser beam between any **two** security devices **if both** conditions are met:

- The two devices are located on two **different rows**: r_1 and r_2, where $r_1 < r_2$.
- For **each** row i where $r_1 < i < r_2$, there are **no security devices** in the i^{th} row.

Laser beams are independent, i.e., one beam does not interfere nor join with another.

Return *the total number of laser beams in the bank*.

```
class Solution {
    func numberOfBeams(_ bank: [String]) -> Int {
        if(bank.count == 1) {
            return 0
        }
        var ans = 0
        var temp = [Int]()
        for i in (0..<bank.count) {
            let t = bank[i].reduce(0){$1 == "1" ? ($0 + 1) : $0}
            if(t > 0) {
               temp.append(t)
            }
        }
        if(temp.count < 2){
            return 0
        }
        for i in 1..<temp.count {
            ans = ans + (temp[i-1]*temp[i])
        }
        return ans
    }}
```