Small World

Java May'19 DSA Final - 1 day 02:57:47

Small World is fun board game about conquering the world by different fantasy races. Each race is defined by two interlocking tiles, one giving a noun describing the race (e.g., "Elves") and the other an adjective (e.g., "Flying"), describing an additional special ability or special scoring opportunity.

One of the skills defines that you can move and conquer only fields from same type (lawn, mountain, lakes) that are next to each other. On each turn the player with this race wants to take as many fields as possible.

Given a matrix of `1s` (fields from one type that is allowed currently for the user) and `0s` (other fields), calculate the **size** of each **conquest**.

- A conquest is formed when each field is connected to another from same type either vertically or horizontally.
- The size of a conquest is the number of conquered fields in it.

Input

Read from the standard input:

- Line 1 - `N M` - dimensions of the matrix that represents the game board.
- Next `N` lines - each of the rows in it.

Output

Print to the standard output:

- Sizes of the conquests must be sorted in descending order.
- Print each conquest's size on a new line.

Constraints

Submit solution

My submissions
All submissions
Best submissions

Points: 100 (partial)
Time limit: 0.1s
Java: 0.3s
Memory limit: 32M
Java: 32M
Author: edward

Tags
Arrays, Recursion
Difficulty
Easy

Allowed languages
java

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Input

```
5 10
1000000010
1111000011
1000000000
1100001000
1000011100
```

Copy

Output

```
9
4
3
```

Copy

Input

```
4 4
0000
0110
0110
0000
```

Copy

Output

Copy

Clarifications

No clarifications have been made at this time.