Thank you for your interest in Netflix and the role on the MLI team.

The next step in the evaluation process is a homework problem. A few notes before you begin:

- To ensure that we have the right background to correctly evaluate your attempt, please use a mainstream programming language (C++, C#, Go, Java, Python, Ruby etc).
- We expect the homework to take 1-2 hours to complete.
- We prefer simple, maintainable, but efficient code. We'd like to see the same here – we're not looking for cleverness without necessity.
- We are here to help. Feel free to ask any questions regarding the problem by emailing us at mli-homework@netflix.com.
- When you are done,
    - please remove all personally identifying information and email a tgz/zip of your source code and instructions for building and running the solution to mli-homework@netflix.com.
    - please don't forget to include
        - the amount of time spent on your attempt.
        - any additional documentation for your attempt (including any assumptions and known deficiencies in the solution).
        - proper attribution for any third party work used in the solution.

Problem Set

A glob is a two-dimensional matrix where all cells have at least one adjoining cell to the right, left, top, or bottom that is also occupied. A glob boundary is the smallest rectangle that completely encompasses the glob.

Given an NxN array of boolean values that represents a valid glob, write a program that determines the glob boundary of the glob.

In your solution, optimize

- first for finding the correct result,
- second for performing a minimum number of cell Boolean value reads,
- and third for the elegance and clarity of the solution.

Please explicitly document all assumptions in the solution.

Sample input:

```
0000000000
0011100000
0011111000
0010001000
```

0 0 1 1 1 1 1 0 0 0
0 0 0 0 1 0 1 0 0 0
0 0 0 0 1 0 1 0 0 0
0 0 0 0 1 1 1 0 0 0
0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0

Sample output:

Cell Reads : 44

Boundary :

Top Left: (1, 2)

Bottom Right: (7, 6)