COP 3502 Fall 2023 Sections 1, 4 Recitation Program #1

Mirror Images

For each recitation program, in order to get full credit, you must submit your solution to open.kattis.com and get your solution accepted on all test cases. In addition, each one will have some separate requirements to fulfill based on your code. When submitting your work to Webcourses, please carefully read the corresponding directions document before submitting all of your files.

NOTE: Over the course of the semester, you must submit TWO out of the four recitation programs. It is expected that while you are in recitation, you start working on each of them. But, afterwards, you can choose which two to finish up.

Implementation Requirements

The input for this problem is a fairly small 2 dimensional grid of characters, which can easily be read into a fixed array of size 21 x 21.

But, since the purpose of the first two weeks of the course was to learn how to dynamically allocate memory, **you must dynamically allocate exactly the right amount of memory to store this grid (plus the null character at the end of each row). You must also free this memory at the end of your program for full credit.** (Thus, one malloc should be done for pointers for each row, and then R separate mallocs should be done for arrays of size $C+1$.)

Solving this problem doesn't require knowledge of a specific algorithm, but just requires making some observations that I expect students in the class to be able to make, given some time. TAs will be instructed to give students as little help as possible to nudge students towards these observations.

What to Submit

Please submit the following:

1) Your source file, mirror.c.

2) A screenshot of your solution's accepted status on Kattis.