COSC 2P03

Assignment 4

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I couldn't figure out how to transcribe the ASCII maze into a graph, so I'll just write what I was trying to do, and what my next steps were going to be.

First I get the input from the user, I checked if they submitted a blank line and skipped over it so it wouldn't be considered, checked whether the input was correct (XOSE), checked if the width was correct, and then accepted the whole string into an array. So it would look like this:

{XXXX

SOOE <- a simple path

XXXX}

Then I broke that string into W amount of pieces and added it to a 3D array, called b. The idea was to traverse that array and add any element that wasn't an X to an adjacency list (since if its an X it can be ignored because we cant "walk" on it to the exit). I used [i-1][j] for North, [i+1][j] for South, [i][j-1] for West, and [i][j+1] for East. I didn't bother trying to do any depth levels since I was having such a hard time with just 1 plane. I was going to try to implement Dijkstra's Algorithm on the adjacency list afterwards. Then I would have it print the finished solution. I had the path cost as a global variable so it could be incremented, decremented and accessed from anywhere.