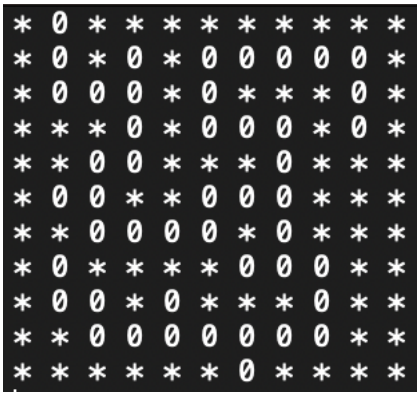
CENG 2002 - Data Structures - Spring 2021
Homework #2

Due date : 14/04/2021 - 10:30

Assignment: Write a maze runner using stacks.

* It should read the maze from a file and store in a 2D array.
* Walls are marked with "*" and corridors are marked with "0"
* An agent should find a route automatically from start to end in the maze.
* The agent can move in N, S, W, E. It cannot move diagonally
* The agent cannot pass through walls.
* The program should figure out the entrance in the first row, similarly it should figure out the end point.
* There is only one entrance and one exit
* The program should work for any maze size. (Maze is not necessarily square)
* The program should mark the route with "+"s.

A sample maze:



Notes:
* You MUST implement in C++.
* The solution should NOT use recursion.
* It MUST use stacks.
* You MUST use your own implementation of stack class.
* If the program shows step by step moves in an animation, it is considered as bonus. (10 pts)

Submit:
- All cpp and header files.

Late submission:
- You get no credits