

CSCE 451 Assignment 1 – Warm up Assignment

Due July 14 at 3:00pm

Converting a board game to a matrix representation

Under the data folder, there are maze files (saved as *.lay files) that represent a board game. To make this board understandable for a computer, we need to change the format of the input file to a matrix. Each % represents a boundary or obstacle and white spaces are part of the route that the game character can choose.

How to construct the output matrix

I will talk about the matrix in the class.

Programming Task

In this assignment your program accepts a board file (*.lay) as input and outputs the matrix format of the board as a new text file.

Tips

- You can create a small input matrix with a few nodes to test your program.
- The skeleton of the code (GameBoard.py) is given to you. Please follow the instruction in the class to complete the code.
- You will be graded on the correctness of your solution, not on the efficiency and elegance of your data structures. For example, I don't care whether you use elegant data structure (although I am not against that), as long as you end up with a correct answer. So, feel free to use "dumb" data structures as long as it makes your life easier and still enables you to complete the assignment in a reasonable amount of time.

Grading Requirements:

You will need to turn in the following

- 1- For full credit your program should be able to generate the same output for given data. I may test your program for a not disclosed input.
- 2- The name of the file should be lastname_firstname_assignment1.py. Please modify the header of the code to your name and last name and studentID.
- 3- Your source code compressed to a single ZIP file. The code should be well commented, and it should be easy to see the correspondence between what's in the code and what's in the report.
Please do not send your code in Jupyter file. Make your code in .py file.
- 4- The name of the code archive should be lastname_firstname_assignment1.zip.