

CENG 212

Programming Assignment 2

In this programming assignment, you are supposed to write a Prolog program for a path finding game.

Create a Prolog program that accepts a start point, an exit point, and a list of obstacle locations as input. The program should then output a possible path from the start to the exit while avoiding obstacles in a 5x5 grid.

The program should take the input in this format:

path((startRow,startColumn),(exitRow,exitColumn),[(firstObstacleRow,firstObstacleColumn),(secondObstacleRow,secondObstacleColumn),...], Path).

Example input:

path((1,1),(4,5),[(2,2),(3,2),(4,4)], Path).

- The first part is starting location: start is in 1st row 1st column (row and column numbers starts from 1, not 0)
- The second part is exiting location: exit is in 4th row 5th column (row and column numbers starts from 1, not 0)
- The third part is obstacle locations: first one is in 2nd row 2nd column, ... (row and column numbers starts from 1, not 0)
- The last part is for the returned answer.

According to this input, a possible output should be:

Path = [(1,1), (1,2), (1,3), (1,4), (1,5), (2,5), (3,5), (4,5)]

Submission Rules

The submission must:

- be performed via Microsoft Teams
- be a prolog file that contains the source code
- include comments if necessary
- follow a specific naming convention: HW2_212_ID.pl (for example: HW2_212_100201001.pl)
- be submitted before the due date

Submissions that do not comply with the rules above are penalized.