

TASK

Using the pyamaze library, create a random maze, and solve it using A* algorithm

Install this library using –

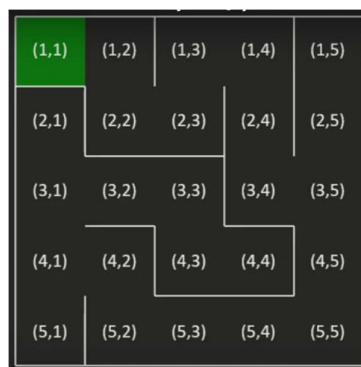
pip install pyamaze

TO CREATE A MAZE

`m = maze(x,y)` - creates a maze of dimensions x , y;

`m.CreateMaze` – creates a maze of the given size. This will create a different maze everytime.

`m.run()` – runs the simulation



What the maze will look like

MAZE ATTRIBUTES

m.rows – number of rows of the maze

m.cols – number of columns of maze

m.maze_map – it is a dictionary storing the maze. The keys are the cells and the values are another dictionary with keys as East, West, North, South and the values as 0 or 1. 1 means path in the direction is open and 0 means closed.

m.grid – list of all cells inside the maze

WHAT THE A* FUNCTION HAS TO RETURN

searchPath – path showing how the search path extended

aPath – reverse path from goal to start

fowdPath – path from start to goal

The rest of the code to display the maze is already given to help you. You just have to write the function to solve the maze. Feel free to change it and show your own creativity.

SUBMISSION

You have to submit your python file, an image showing solved maze, along with the video of the simulation working.

Compress all the files into zip file to upload.

<https://forms.gle/yEdHWqaemVsDGTrs9>