CSE 3812/CSI 342
Assignment 2

Assignment Description

There will be a grid of size $N \times N$ with obstacles and a robot located on one of the cells in the grid. You have to determine the shortest path from the robot to a given target cell.

- **Inputs:**
  1. Size of the grid (N)
  2. Number of obstacles
  3. Position of the obstacles
  4. Location of the robot
  5. Location of the target cell
- **Outputs:**
  1. After finding the shortest path print the grid. Show the obstacles as '#', empty cells as '-', starting location as 's', target location as 't' and path from starting location to target location with 'p'.
- **Methods:**
  1. Breadth First Search
  2. Uniform Cost Search
  3. A^* Search
- **Reference:** `https://www.redblobgames.com/pathfinding/a-star/introduction.html`
- **Submission:** Submission date for breadth first search is 5th class. Submission date for uniform cost search and A^* search is 7th class. Assignment must be submitted in eLMS.