

## DSA Questions:

Q1). Let us implement Rat in a MAZE as example problem that can be solved using a Stack. A Maze is given as  $N \times N$  binary matrix of blocks where source block is the upper left most block i.e., `maze[0][0]` and destination block is lower rightmost block i.e., `maze[N-1][N-1]`. A rat starts from source and has to reach destination. The rat can move in four directions: back, forward, up and down. In the maze matrix, 0 means the block is dead end and 1 means the block can be used in the path from source to destination. Visited path (visited index) should be marked as -1. Note that this is a simple version of the typical Maze problem. For example, a more complex version can be with limited number of moves. All inputs and outputs will be done using filing. Input file name will be `input.txt` and output will be in `output.txt`.

Q1b) Do it recursively.