Play with Mazes

Description

This lab aims to practice implementing clients to interact with TCP servers. We prepared four different flavors of text-based maze servers. Please follow the instructions and have fun!

1. You may play with the maze servers *manually* before implementing the clients. The servers can be accessed via the following commands:

   nc inp.zoolab.org 10301

   nc inp.zoolab.org 10302

   nc inp.zoolab.org 10303

   nc inp.zoolab.org 10304

2. Each server displays a full or partial maze upon connecting to the server. You (or your client implementation) have to walk from the current position (indicated as an asterisk *) to the exit E. The sharp (#) character indicates a wall in the maze, and the dot (.) character indicates a road in the maze.
3. To change the current position, you can send commands W, S, A, and D to move up, down, left, and right, respectively.
4. The time limits for solving the mazes are as follows:
   - maze #1: 60s
   - maze #2: 60s
   - maze #3: 60s
   - maze #4: 600s
5. If you have correctly solved a maze, i.e., walk from the initial position to the exit E, the server displays a Bingo! message followed by a secret message. Please paste the secret message to the verification service running at https://inp.zoolab.org/maze/service, and then the TAs can verify if your solution is correct.

Demonstration

1. [20%] Your implemented TCP client can solve maze #1. Repeat running your solver program three times. Each time, your solver must solve the challenge successfully.
2. [25%] Your implemented TCP client can solve maze #2. Repeat running your solver program three times. Each time, your solver must solve the challenge successfully.
3. [30%] Your implemented TCP client can solve maze #3. Repeat running your solver program three times. Each time, your solver must solve the challenge successfully.
4. [25%] Your implemented TCP client can solve maze #4. Repeat running your

solver program three times. Your solver should find a correct solution at least one time.