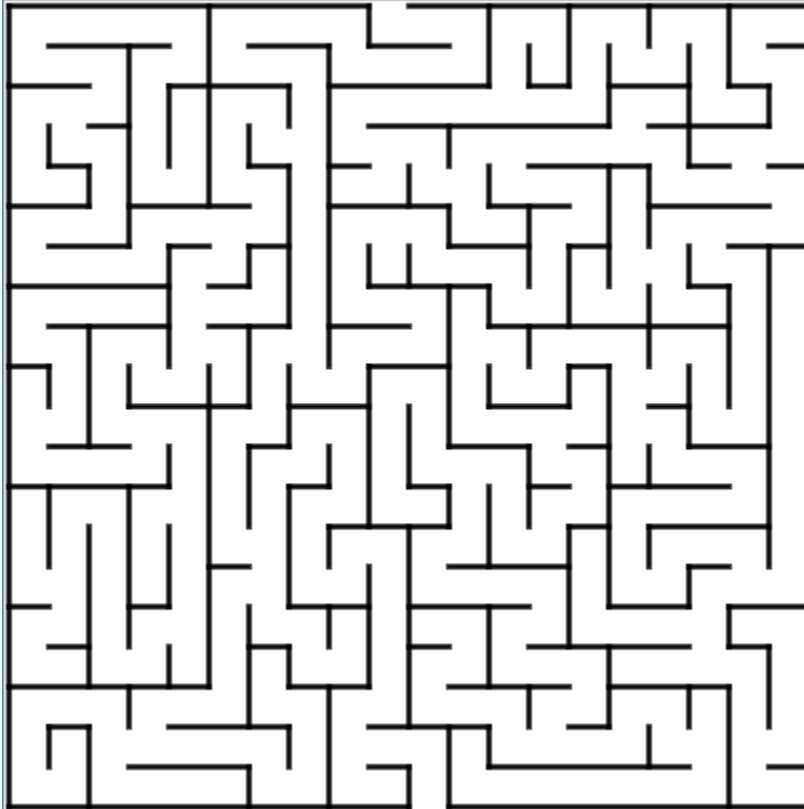


1. In the 2D maze environment shown in the figure, a 2D robot starts at the entrance at the top and must navigate through the maze to reach the exit at the bottom. Could you write a program to automatically parse the figure and generate a path for the robot? Please attach your code and provide a brief report detailing how you parsed the figure and designed the path-planning approach for the robot.



2. If the maze is placed on a table and a robot arm is holding a pen to traverse the maze from the entrance to the exit, what additional factors need to be considered beyond the solution developed for Problem 1? Discuss it and include your answer in your report.
3. If it is a mobile robot traversing through a real maze in 3D, what additional factors need to be considered? Discuss it and include your answer in your report.
4. Please prepare a 15-minute presentation on one of your previous projects. It could be a course project, a research project, or your thesis.

Note: If you use Chat AI, include how you use it and what is your prompt in your report. Additionally, attach a README file with your code to explain how to run it. You may also host the code on GitHub and provide the repository link. Feel free to use any programming language you're comfortable with.

Let me know if you have any questions. Once you are done, send the report and the code to me, and we can arrange a time to meet through Zoom.