3D Maze Project Report: Teamwork, Challenges, and Solutions

**Title:** Trevor Maliro

**Team Name: Team Solo**

**Member Names and Student IDs:**

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**Course:** Cosc3306

**Instructor:**Randy Lin

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# Introduction

My Maze is a simple maze deployed in threeJS application. It has single point of light from location (25,30,-40), right below it is a 3d object of a beast. The maze doesn't have too many traversals. The outer walls are of one texture and inside walls are mapped to another texture.

# Teamwork Overview (If applicable)

**Team Strategy:** I worked on the project by myself.

# Implementation and Challenges

**Technical Challenges and Solutions**

**Texture Implementation & Maze Design:** The Calculations for wall placement were challenging, I had to document each wall slice to keep track of where it should be located and the dimensions i.e. horizontal or vertical placement to the camera view.

**Lighting & Object Loading:** I couldn't find a stable branch for loading OBJ files, so I downloaded the source and hosted it locally due to strange js errors. I also had to manually edit the js files to find missing dependencies.

**Challenges in Teamwork**

**N/A**

# Team Reflection (If applicable)

**Learning Outcomes:** Reflect on what your team learned from working together, both technically and in terms of teamwork and communication.

**Challenges Overcome:** The debugger was critical to isolate the error especially when the code base grew larger..

**Contribution Summary:** All work was my own.

# References

List at least four references used by your team in the development of the project, including any tutorials, documentation, or external resources that contributed to your learning and project success.

1. <https://github.com/alecjacobson/common-3d-test-models?tab=readme-ov-file>
2. <https://discourse.threejs.org/t/maze-algorithm-for-solving-difficult-2d-and-3d-mazes/41264>
3. <https://www.youtube.com/watch?v=vLz2Rk1r_gQ>
4. <https://www.reddit.com/r/threejs/comments/mld6kp/i_made_a_infinite_maze_in_threejs_and/>