

PROJECT REPORT

Link to video:

<https://drive.google.com/file/d/1-R-WSsjOKQlvs0KUwmNGYpadBJOb0nxu/view?usp=drivesdk>

Introduction:

The project uses the canvas.js framework provided by Zense to render a 3 dimensional video game using primitive ray-casting.

Description:

The motivation behind the project was the boredom faced while playing 2-D game. Also we wanted to think out of the box since most people would use canvas for 2-D images.

Solution:

The rendering of 3-D models on canvas happens using multiple 2-D rectangles. The two types of games proposed are also very interesting and make good use of the framework.

The first game is a Maze Runner game where the player is expected to solve the maze before the walls close in.

The second game is Ricochet Shooter, wherein a player has to aim in a way that they hit the target by ricocheting the bullet off of walls.

Execution:

1. JavaScript to write the code
2. Canvas.js provided by Zense as a framework used for rendering the 3-D models.

Explanation:

The Maze Runner game involves a player in first person view.

The player's objective is to run through the maze and make it to the finish line before the walls close in.

The walls will slowly close in towards the stationary walls trying to capture the player.

Conclusions:

1. Each team member learnt a lot more about JavaScript than what they already knew.
2. The team learnt to work co-operatively.
3. The team learnt modularity of work.
4. The team members learnt to use the canvas.js framework

References:

https://en.wikipedia.org/wiki/Line%E2%80%93line_intersection

<https://www.youtube.com/watch?v=TOEi6T2mtHo>

<https://www.youtube.com/watch?v=xW8skO7MFYw>

Team:

Miss Amisa

Ruturaj Mohite

Rajath Rao