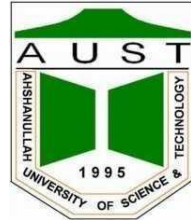


*Ahsanullah University of Science & Technology*  
Department of Computer Science & Engineering



**Interactive 3D Reading Room**  
**Computer Graphics Lab (CSE 4204)**  
**Project Final Report**

Submitted By:

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## Project Requirements:

The goal of this project is to develop an engaging and interactive 3D scene using the Three.js, Node.js. The focal point of the scene is a reading room setup, complete with a table and chair, each designed with specific functionalities. The key requirements are given below:

1. A Table.
2. A Chair.
3. Moving camera inside the room.
4. Changing table texture by each mouse click.
5. Light position will rotate around the room.

## Software Platform:

Tools and Technologies used:

1. HTML, CSS
2. Javascript Framework: Three.js, Node.js
3. IDE: Visual Studio Code

## Project Features:

Enlist the features of your project and describe how each feature works. For example, If you implement a light, you need to explain how this particular lighting model works.

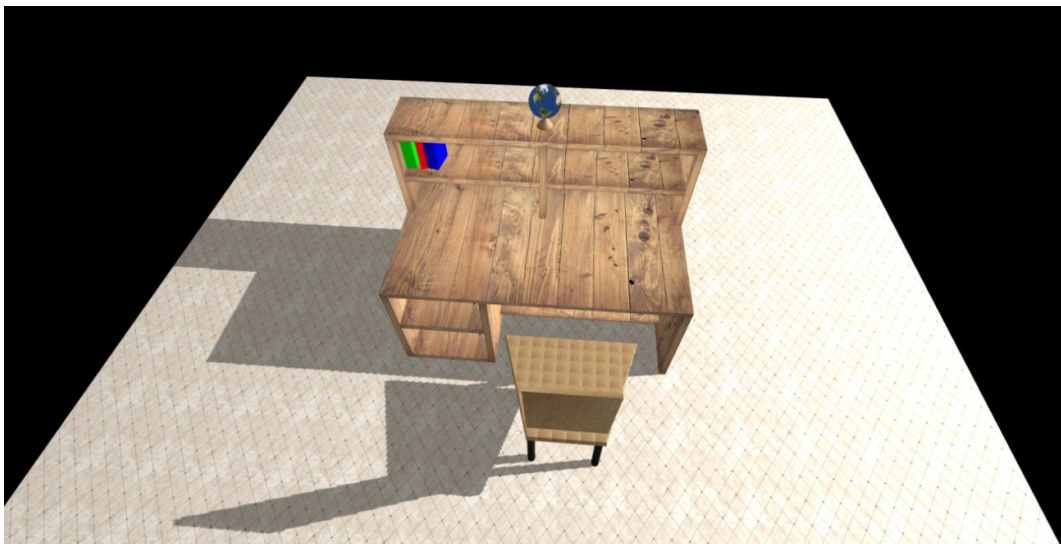
#	Features	Status
1	A Reading Table	Implemented
2	A Chair	Implemented
3	Camera Interaction	Implemented
4	Mouse Interaction for Table Texture	Implemented
5	Rotating Light Position	Implemented

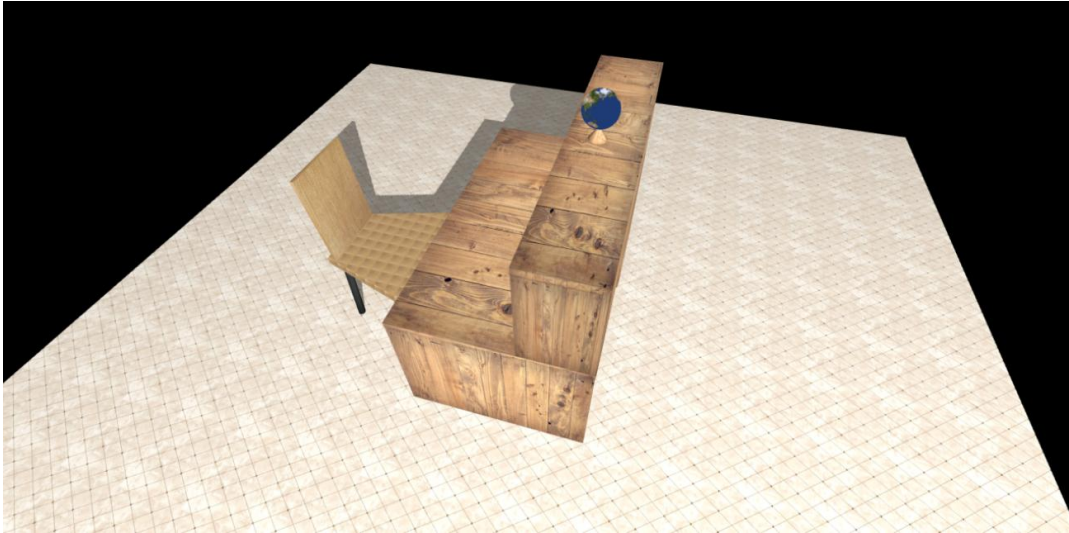
Table 01: Project Feature Table

- A Reading Table : A 3D reading table has been successfully developed, featuring a unique and interactive functionality where its texture dynamically changes with each mouse click.
- A Chair : A 3D chair has been designed.

- A Globe : A globe has been strategically placed on the upper side of the table, by introducing a rotating element.
- Light Interaction : A dynamic lighting feature has been implemented. The light position is set to rotate around the room, .
- Books : Some books are organize positioned in the bookshelf of the reading table.

### Snapshots:



**Contribution:**

190204093- Fardin Jaman Aranyak(50%)

190204111- Shovon Chowdhury(50%)

**Future Work:**

Add more elements to the room, such as artwork, decorations, or additional furniture, to create a richer and more detailed environment.

Experiment with advanced lighting effects, such as realistic shadows, reflections, or even simulated global illumination.

Integrate immersive soundscapes to accompany the visual elements, enhancing the overall sensory experience.