Planner-3D



Centre for Computational Technologies

Transforming human life by democratization of technology

[https://www.cctech.co.in](https://www.cctech.co.in/)







Content Reviewer : Vijay Mali

Revision Date : 22 September 2017

Version : 1.0Revision : 0.0

# Introduction

**1.1 Purpose :**

The purpose of this document is to provide a detailed overview of the requirements for the development of "Planner-3D," a web application that allows users to design and plan interior spaces in 3D.

**1.2 Scope :**

Planner-3D is a web-based application that allows users to design interior spaces by selecting and placing 3D furniture models within a room. Users can choose from a variety of furniture shapes and styles, and interactively place them within the room to visualize their designs.

# System Overview

Planner-3D is a user-friendly web application designed to simplify the interior design process.

* Provides an interface for users to interact with the application.
* Allows users to select room dimensions and furniture shapes.
* Supports drag-and-drop functionality for placing furniture within the room.

# 3 Functional Requirements

**3.1 Room Creation:**

Users should be able to create a new room by specifying its dimensions.

Users should be able to choose the shape and size of the room.

**3.2 Furniture Selection:**

Users should be able to select furniture.

**3.3 Furniture Placement:**

Users should be able to drag and drop furniture into the room.

Users should be able to rotate and resize furniture as needed.

**3.4 Design Saving:**

Users should be able to save their designs for future reference.

**3.5. Performance Optimization:**

Optimize algorithms and data structures to achieve efficient computation and rendering.

# 4 Tools

* Frontend: ReactJS, HTML, CSS & TypeScript
* 3D Graphics: three.js
* Furniture Models: .stl files
* VS Code for the structuring part

# 5 Milestones and Timeline

| **Sr. No.** | **Milestones** | **Date and Time** |
| --- | --- | --- |
| 1 | Project Problem Definition | 06 May,2024 |
| 2 | SRS Presentation & Approval | 07 May, 2024 |
| 3 | Implementation of User Interface | 07 May, 2024 |
| 4 | Integration with the three.js API | 08 May, 2024 |
| 5 | Customization Functionality Implementation | 08 & 09 May, 2024 |
| 6 | Testing and final changes | 10 May, 2024 |
| 7 | Project Demonstration | 10 May, 2024 |
| 8 | Final Submission | 13 May, 2024 |

# 

# 

# 

# 6 Conclusion

In conclusion, Planner-3D is a web application designed to simplify the interior design process by allowing users to visualize their designs in 3D. By providing an intuitive user interface and powerful design tools, Planner-3D aims to empower users to create beautiful and functional interior spaces.