

## Task Description: 2D Floorplan Viewer Implementation

### Objective:

Create a simple interactive 2D floorplan viewer using JavaScript, HTML, and CSS, based on a provided JSON file. The viewer will display the layout of a floorplan, including walls, doors, and furniture, allowing users to navigate and interact with the elements on the floorplan.

### Data Description:

The provided JSON file is composed of three main sections: **Regions**, **Doors**, and **Furnitures**. Each section contains the necessary information to render the respective components of the floorplan.

#### 1. Regions:

- Describes the outer walls of the floorplan.
- Each region is defined by a pair of coordinates, representing the start and end points of a wall segment.
- Each coordinate has three components: X, Y, and Z, where X and Y represent the position on the floorplan, and Z represents a constant height.

#### 2. Doors:

- Defines the location, width, and orientation of doors within the floorplan.
- Each door is described by:
  - **Location:** The X, Y, and Z coordinates indicating the position of the door.
  - **Width:** The width of the door.
  - **Rotation:** The orientation of the door in radians, determining its angle on the floorplan.

#### 3. Furnitures:

- Describes various pieces of equipment within the floorplan.
- Each piece of furniture is characterized by:
  - **MinBound and MaxBound:** These define the dimensions of the furniture's bounding box, using X, Y, and Z coordinates.
  - **equipName:** The name of the equipment.
  - **xPlacement and yPlacement:** The coordinates indicating the location of the furniture on the floorplan.
  - **rotation:** The rotation angle of the furniture in radians, which affects how it is oriented on the floorplan.

### Interactivity:

- **Navigation:** Users will be able to move around the floorplan.

- **Zoom:** Users will have the ability to zoom in and out to focus on specific areas.
- **Hover Feature:** When hovering over a piece of furniture, the equipment's name will be displayed.

**Deliverables:**

- A functioning web-based application that allows users to view and interact with the floorplan.
- The source code, accompanied by documentation explaining how to set up and use the application.

Please follow the submission instructions in the LinkedIn message when submitting your solution.