**Layout Designer Documentation**

* To run the project, Install the node modules by running npm install and then run npm start
* Project uses React framework. App starts from App.js file which has a global state value Called jsonString which contains the json data to create the layout

**App.js**

App.js contains three components inside it, which are :

1. App Bar
2. Layout Screen
3. Input Screen

**App Bar**

App Bar contains nothing except the button to come to Home Screen from 3d View.

Button calls callback function which sets the currentRoom state to null

**Input Screen**

Input Screen component is a direct controlled Input which updates the Global Json String Value as we type the Json data inside the component. This is used to create the Layout Model.

**Layout Screen**

Layout Screen Parses the Json String value to a Json Object and passes the Json Object to Home Component which is a child component of Layout Screen.

**Home Component**

Home Component has two states for the Layout view. They are :

1. Rooms
2. Doors

Home Component has three Components inside it. They are:

1. Door2D
2. Room2D
3. Room3D

**Door2D**

Door 2D is a component which takes all the doors from an array which basically put the svg line element to a somewhere on the Layout Model.

**Room2D**

Room2D is a component which takes all the rooms from an array and checks the property type by which it selects, either the room will be Rectangle or Polygon in shape.

Room2D has two components inside it. They are:

1. Label 2D
2. Devices2D

**Label2D**

Label2D is label for a particular name. Label 2d has some functionalities to set it’s length so that it can appear inside the dimension of room2d. The function which does all this is called

calculateLabelPosition which takes room as an input gives us label as an output.

**Devices2D**

Devices 2d is just svg circles with their attributes coming from the parent component room2D.

To Check the interfaces of Room or Doors or any other Component, visit Interface folder, all the types are given there.

All the styling files are inside the View folder.