

WillowTree Seating Map



Virginia Commonwealth University 2018 Engineering Capstone

Najia Haider, Rostam Panjshiri, Marjorie Yeaple-Betancourt
CS306

End of year final project check-off.

Submit your final documentation for the project: (I will need this documentation in case your sponsor comes to me asking questions)

- **Sponsor turn-over verification** --> Verification that you've turned over your prototype and all documentation to the Sponsor. You should have had a close-out meeting with your faculty advisor and your sponsor to ensure that they are happy with the project and have received a turn over of the project to them. All sponsors should have had ample time to test your prototype.
- **Source Code** --> Code walk-through with your faculty advisor (and possibly with Sponsor). Should include: (a) link and access to source code repository (b) well documented code **note:** my github id is bobdahlberg
- **Documentation** --> Should include: User guide, installation guide, ER model (if a database is used), story boards (if a user interface is provided), process flow diagrams, architecture diagram, and whatever you were required by the Sponsor and/or facultyadvisor.

INTRODUCTION

Like many development companies, WillowTree Apps' office layout is fairly dynamic. Employees shift within the company's office space frequently for each new project they are assigned to and desks are moved and combined to accommodate these new project teams. Internally, employees regularly consult with coworkers of other teams for insight on a given technology. This creates a need for an office space managing software that can also track the locations of employees and projects for both the Charlottesville and Durham locations.

Our JavaScript web app serves to fill this need, using the JQuery and Bootstrap libraries. The app provides an easy user interface to plan out office layouts and rearranging those layouts as necessary. Additionally, employees and their respective teams are easily accessible with a built-in directory showing these assignments. This information is then saved real-time utilizing an internal database of employees and their assignments. The app displays the current seating chart which can be converted to pdf for easy distribution throughout the company.

Our application will be used by WillowTree's office managers for planning as well as employees for a reliable and up-to-date directory of coworkers. Ultimately, it aims to make WillowTree Apps' internal workflow more efficient and accessible.

INSTALLATION GUIDE & SYSTEM REQUIREMENTS

The WillowTree Seating Map is an web application utilizing HTML5 and CSS for it's front-end implementation and JavaScript for it's back-end services. As such, most modern browsers will support this application, including Chrome 4.0, Internet Explorer 8.0, Firefox 3.5, Safari 4.0, and Opera 11.5 (as well as their recent versions).

To access the application using these browsers, simply open the index.html file using your preferred browser. All other files contained within the application's folder are either used as resources for it's display or source code for its various services and features. All features and back-end services' source code are stored in JavaScript files found within the root directory and supporting JavaScript libraries are found within subfolders.

USER GUIDE & STORY BOARDS

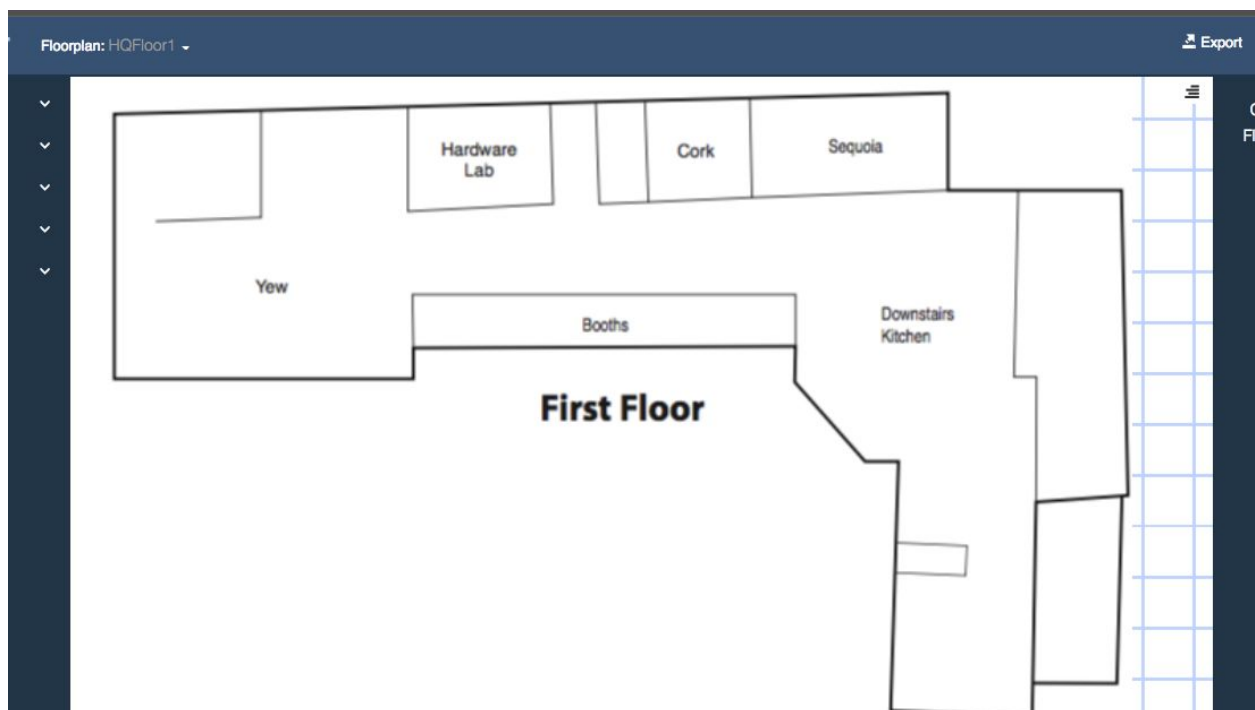
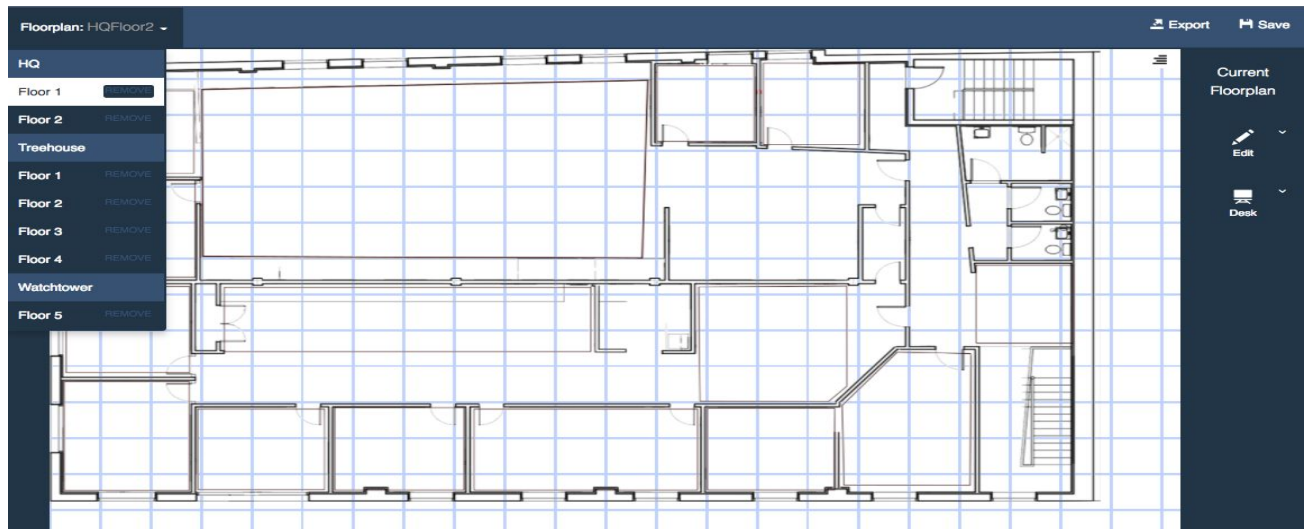
The website's main UI consists of three toolbars: a **navigation bar** at the top, a **left sidebar** for edits, and a **right sidebar** for room set ups.



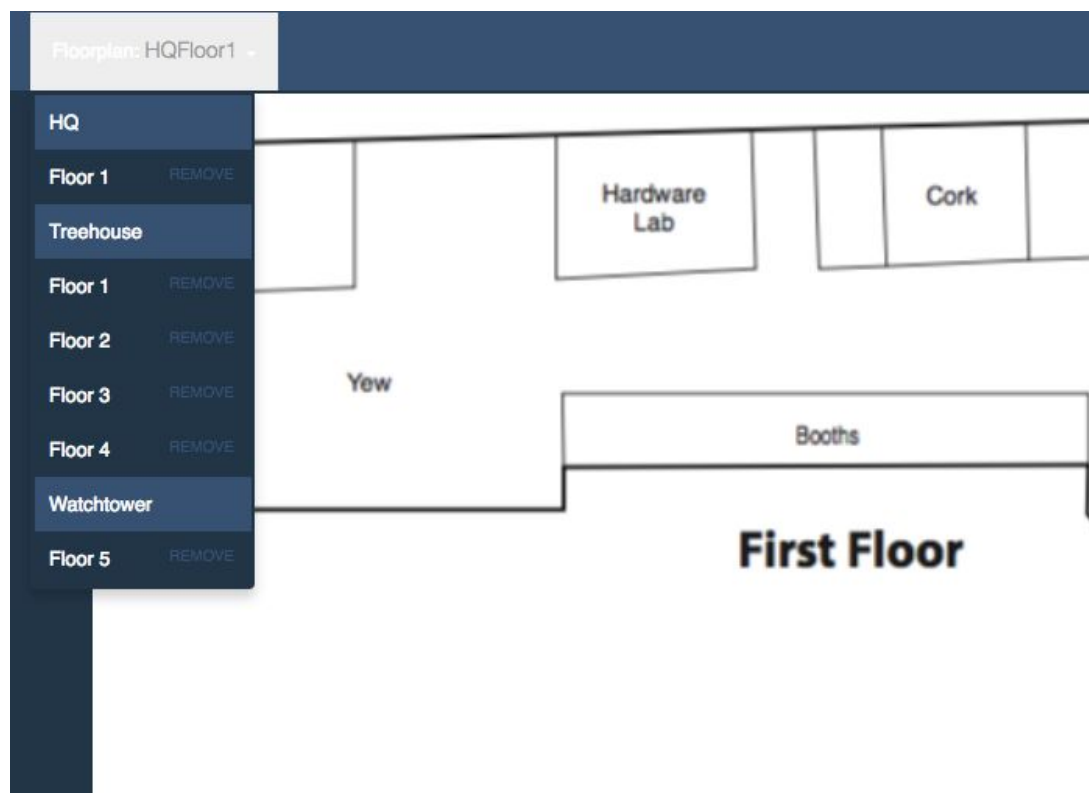
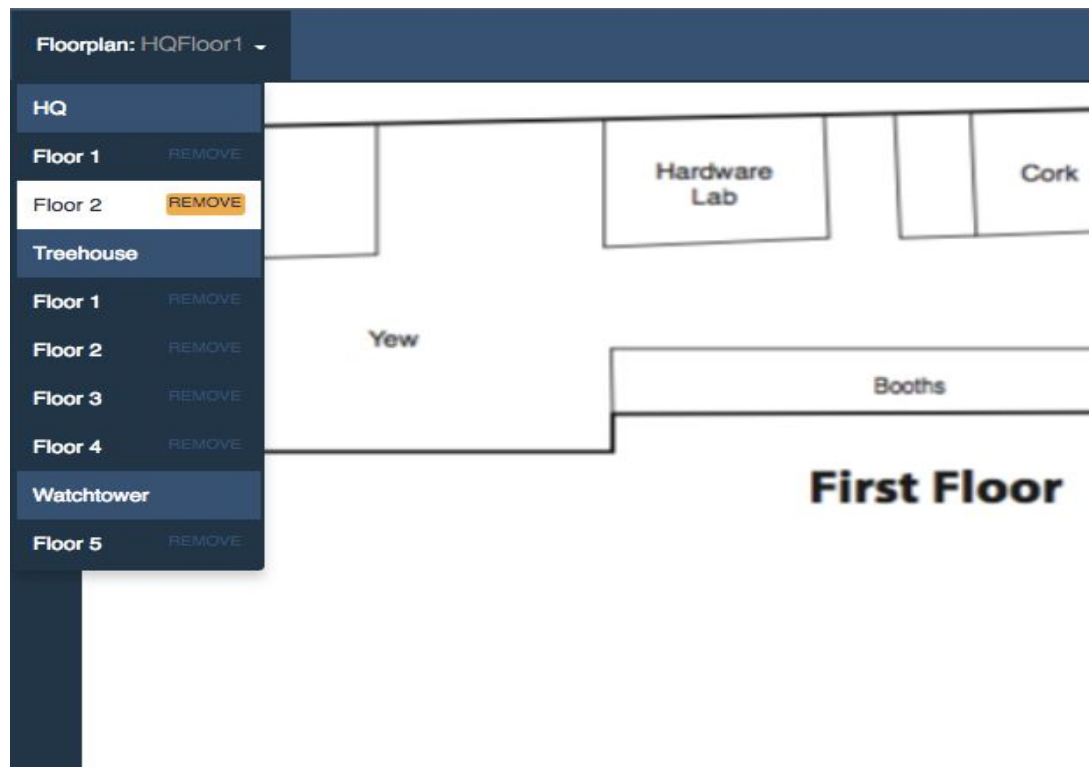
Navigation:

The navigation bar at the top is used to switch between buildings and floor plans associated with those buildings.

By clicking each individual floor plan, the user will be redirected to that floor on the main display, and that floor plan's name will be displayed up in the bar.



Hitting “REMOVE” next to the floor plan name on the submenu will also allow the user to delete a floor plan for a specific building.



Export: The export button on the top right hand corner of the navigation bar will

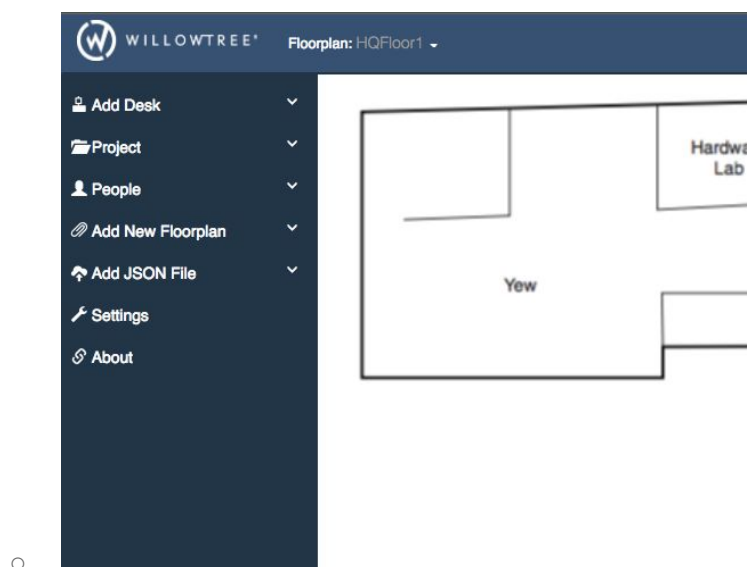
open the print window. This feature will allow the user to either print or save a PDF of a printer- friendly version of the floor plan with the seating arrangements.

Save: Every time the user hits “Save” the computer website will save the seating arrangements to be ready for the next reloading of the page.



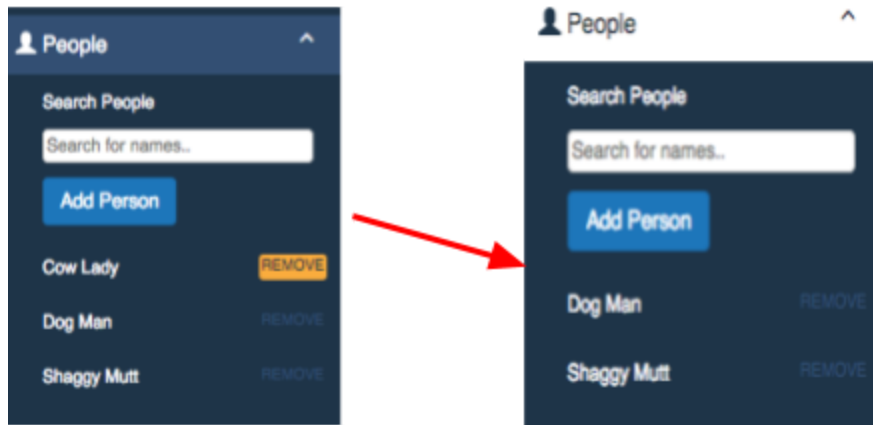
Room Design

The main goal of this app is to allow the user to arrange desks with people and projects assigned to them, so the left sidebar is instrumental in that process.

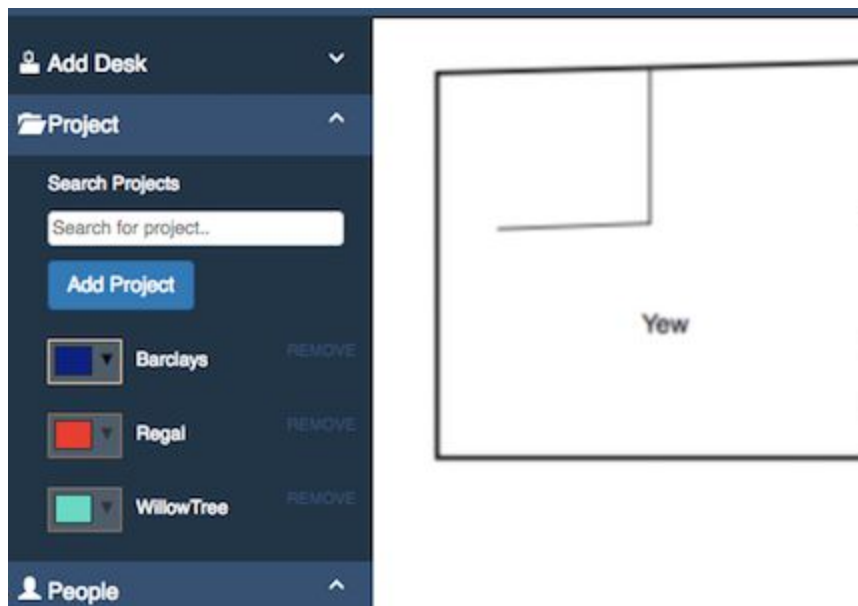


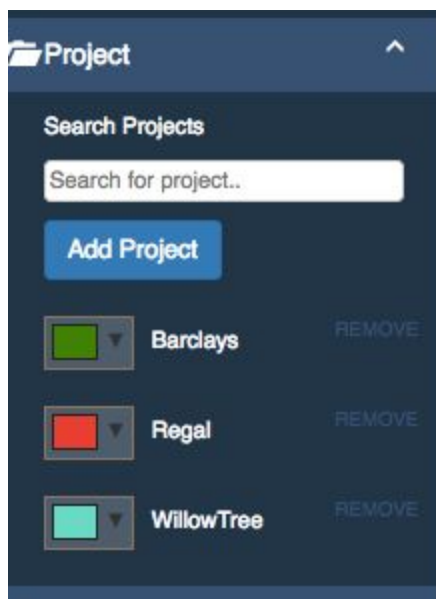
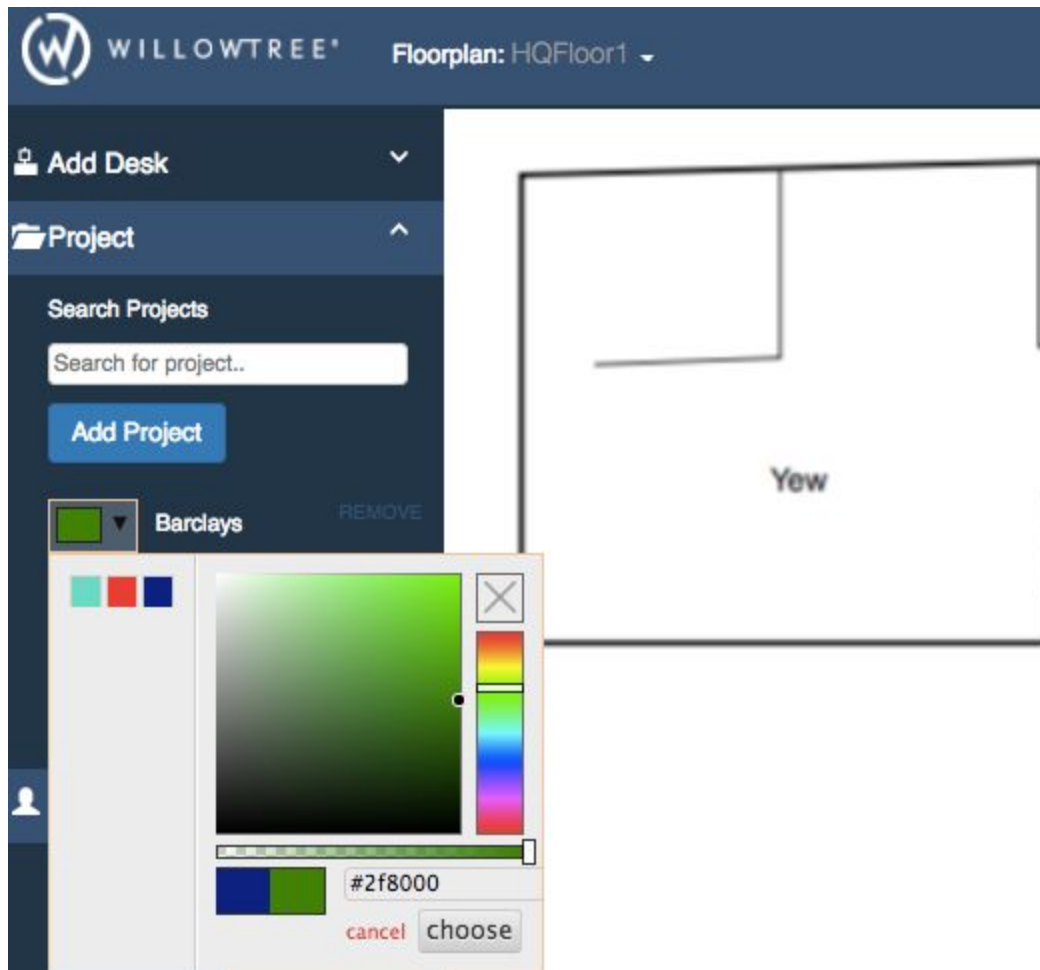
The app provides the user with three built in people and projects that can be deleted and modified.

Deleting a person

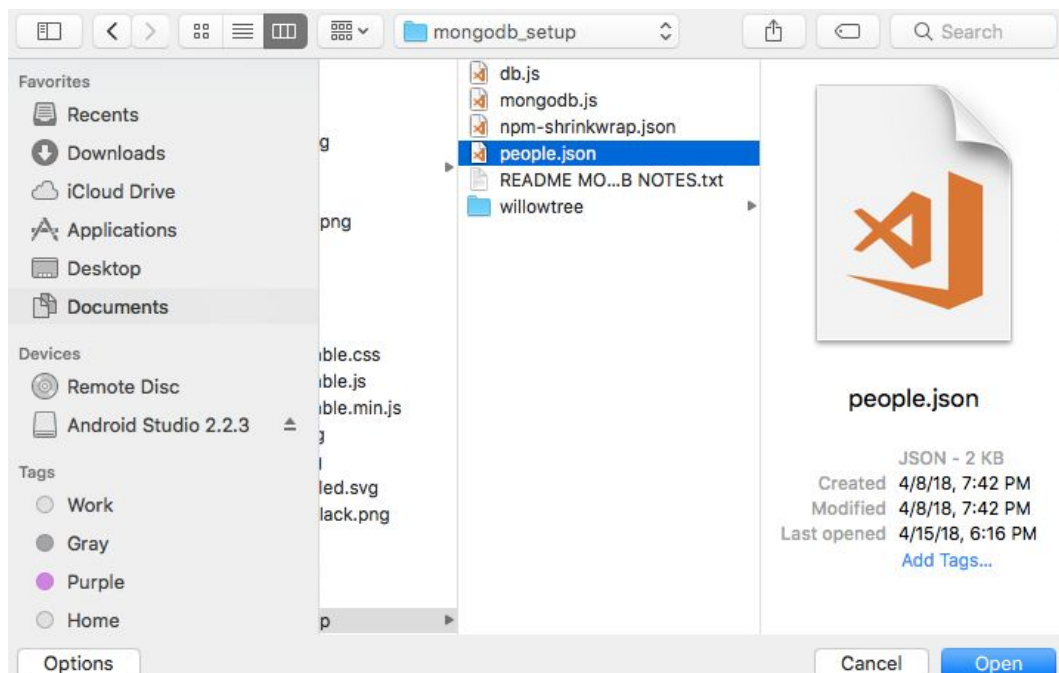
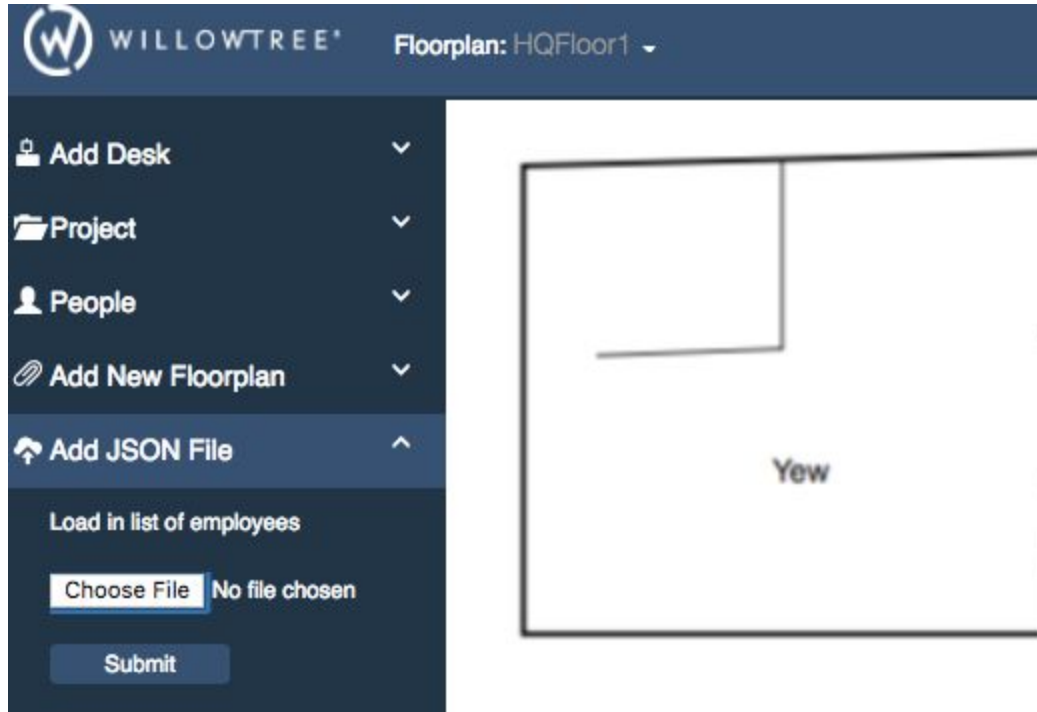


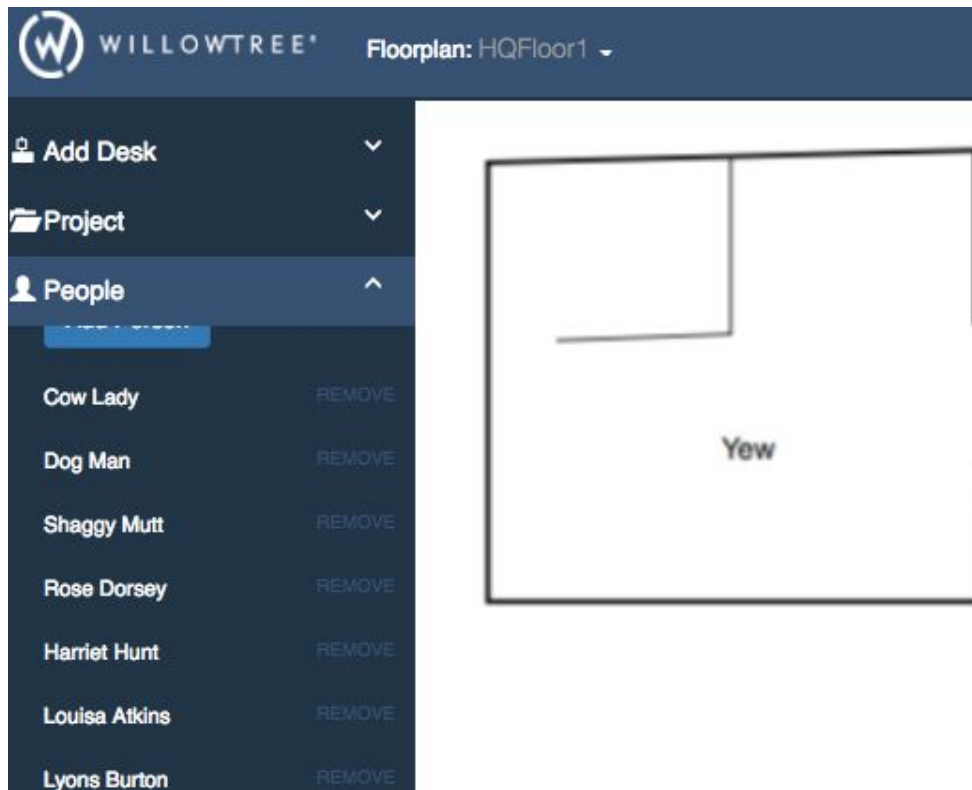
Changing a project's color





Projects and People can be added manually via the text field and “Add Project” button in these respective submenus. People and Projects can also be added in bulk via a JSON file through the “Add a JSON file” menu.





The left sidebar also allows you to add new floor plans to existing buildings or even new buildings, through the “Add New Floorplan” menu.

An image file is required (SVG transparent is recommended) and will be displayed in the preview box for the user’s convenience. Once the user has loaded the image, they can hit “Add File into Directory” to add the floor plan or building into the navigation bar.

Add Desk

Project

People

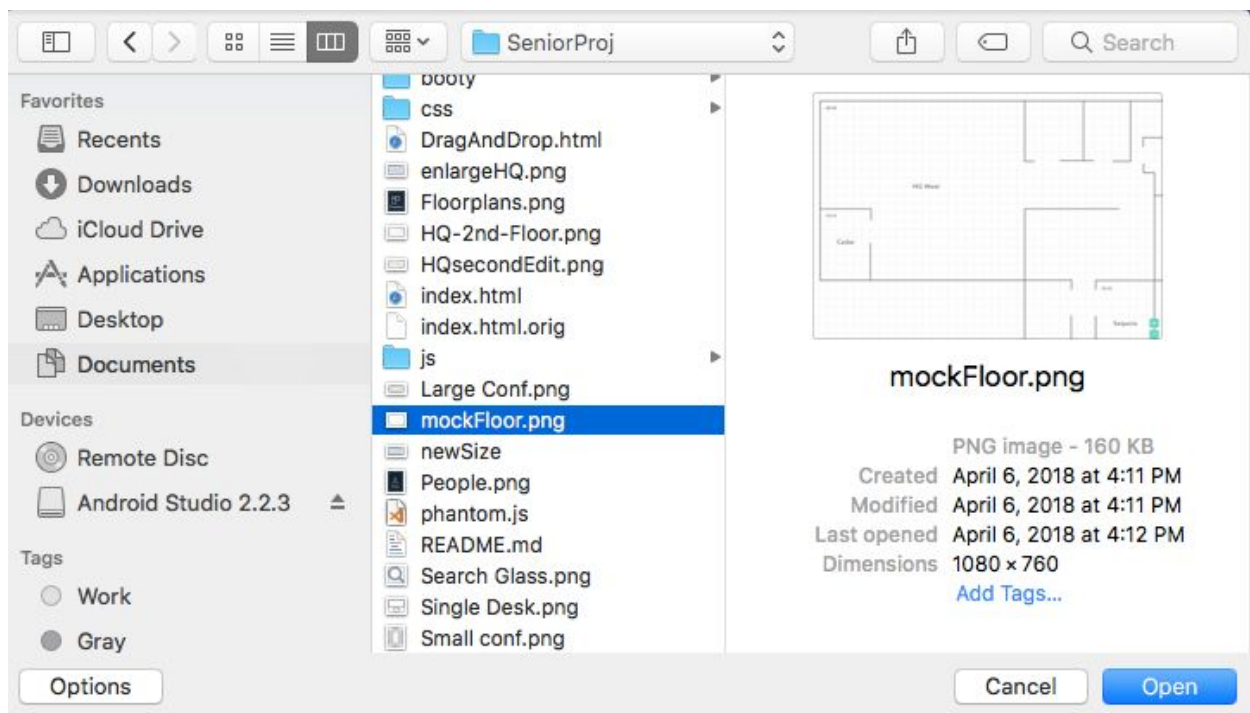
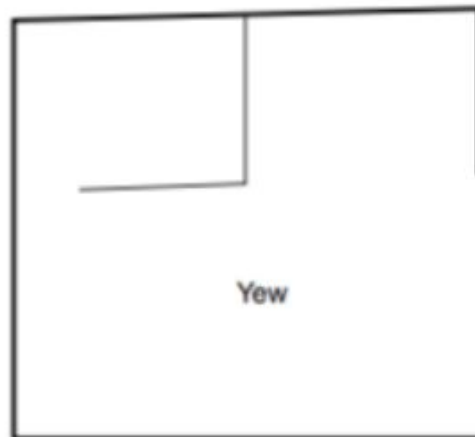
Add New Floorplan

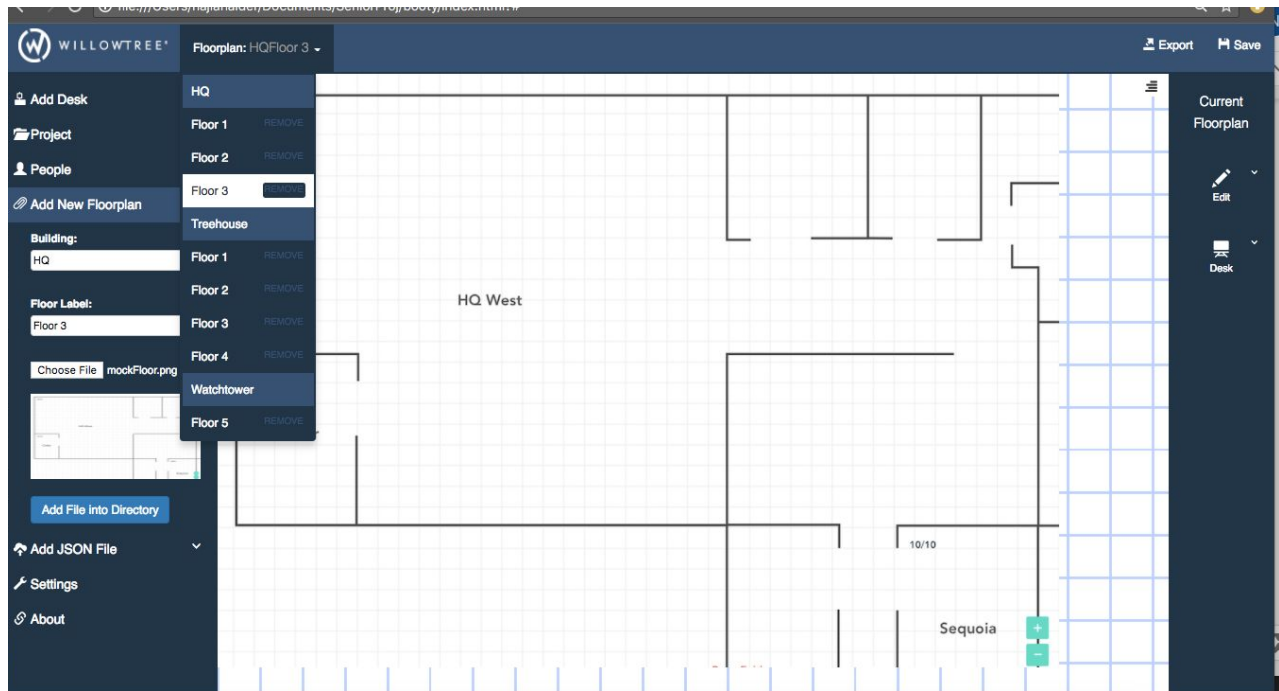
Building:

Floor Label:

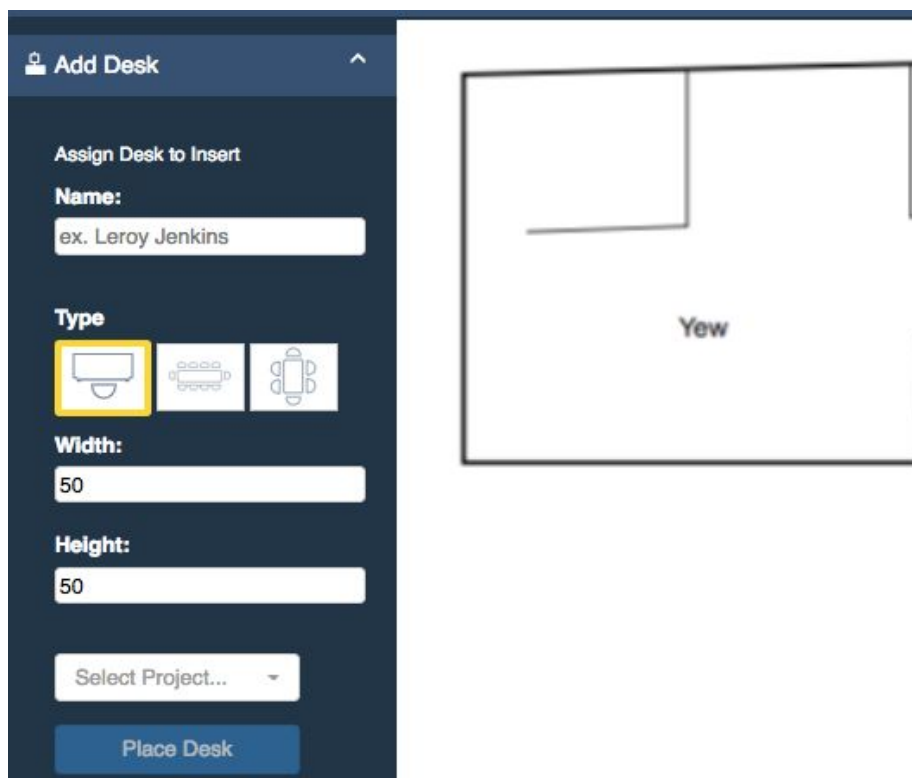
No file chosen

Image preview...





Desks are added in the “Add Desk” submenu. For each desk, the user must assign it a person from the directory (if the typed in name is not in there already, it will be added) a project from the directory, a “type” of desk and a size.



Add Desk

Assign Desk to Insert

Name:
Franks Jackson

Type

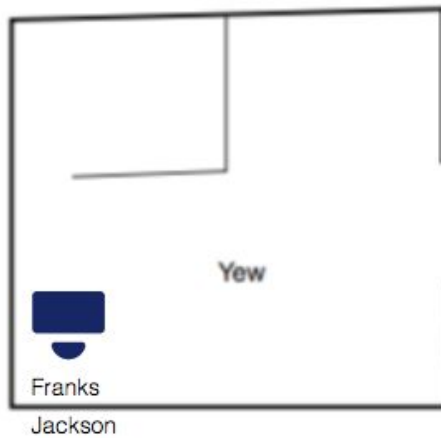
☒  ☐  ☐ 

Width:
50

Height:
50

Barclays

Place Desk



Once on the floor plan, the desks can be dragged around, deleted, and rotated.




WILLOWTREE Floorplan: HQFloor1

Add Desk

Assign Desk to Insert

Name:
Franks Jackson

Type

☒  ☐  ☐ 

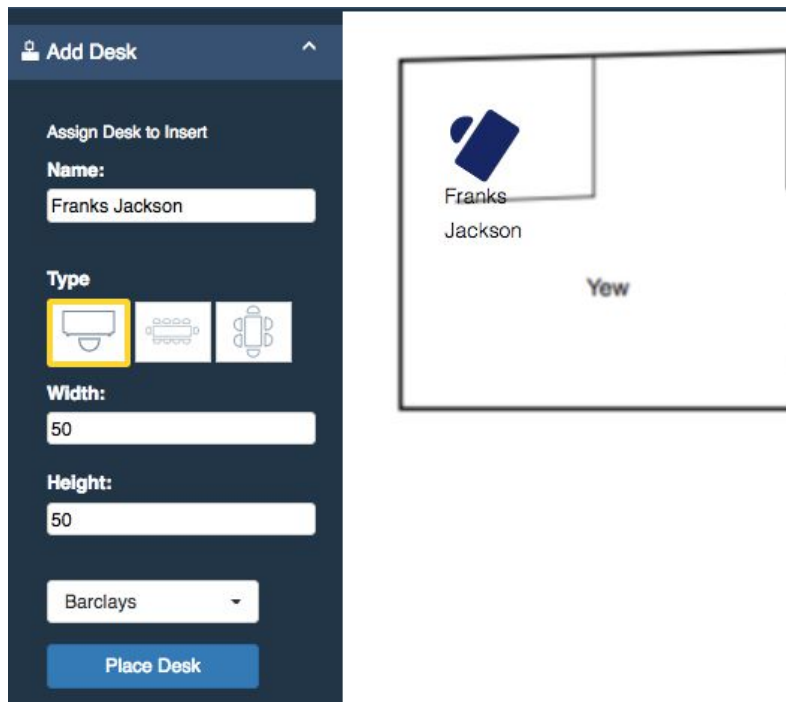
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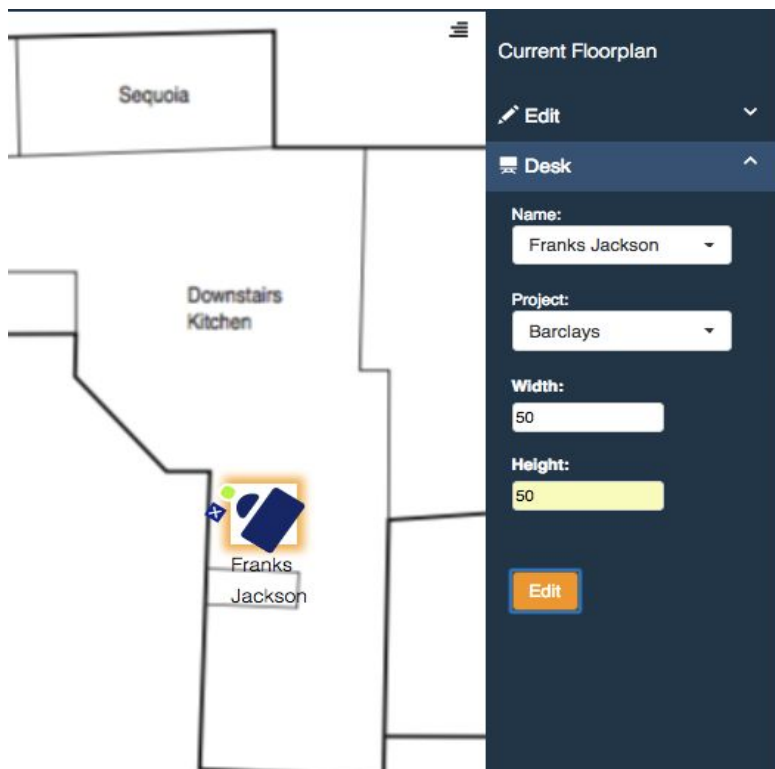
Barclays

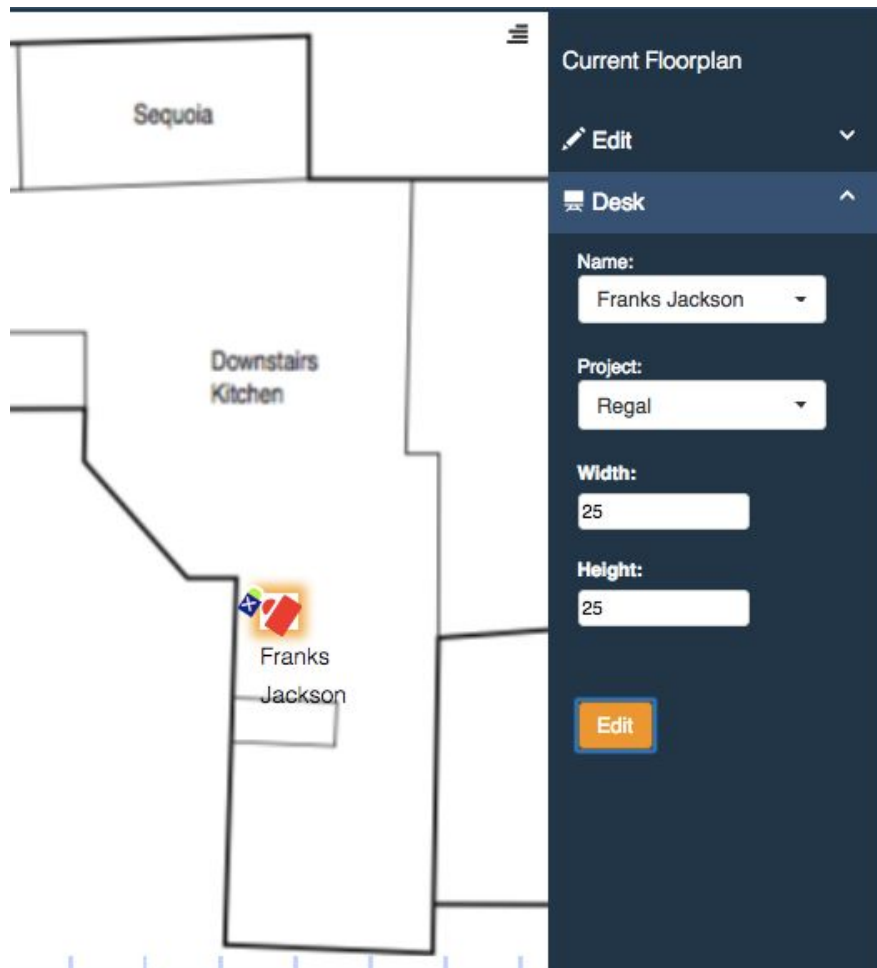
Place Desk





When selected, desks can also be edited by the “Desk” submenu on the right sidebar. The name, project, and size can be changed.





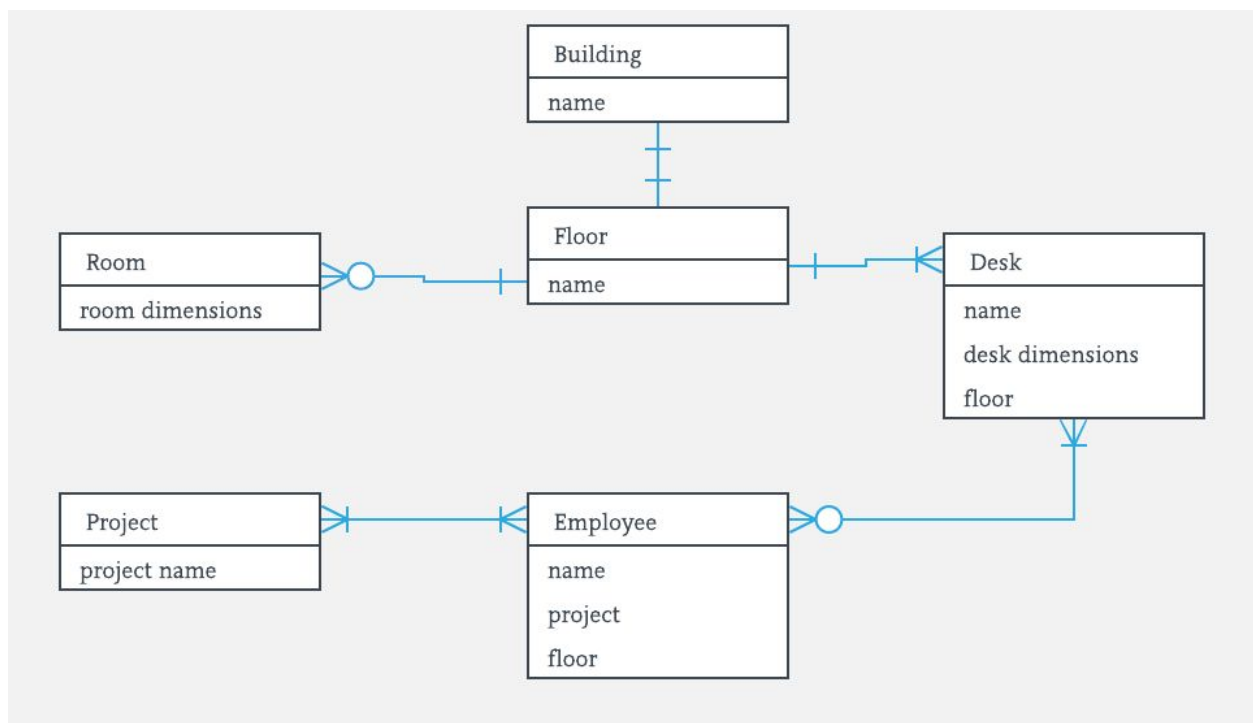
From the right sidebar, you can also insert and create rooms. Rooms can be dragged and resized, and then locked in place. Dragging desks into a room will display such in the room. This was much a work in progress and appears as a prototype feature.

INSTALLATION GUIDE

Download the folder off the GitHub. Simply create a desktop shortcut for the index.html by dragging it to your desktop. Voila.

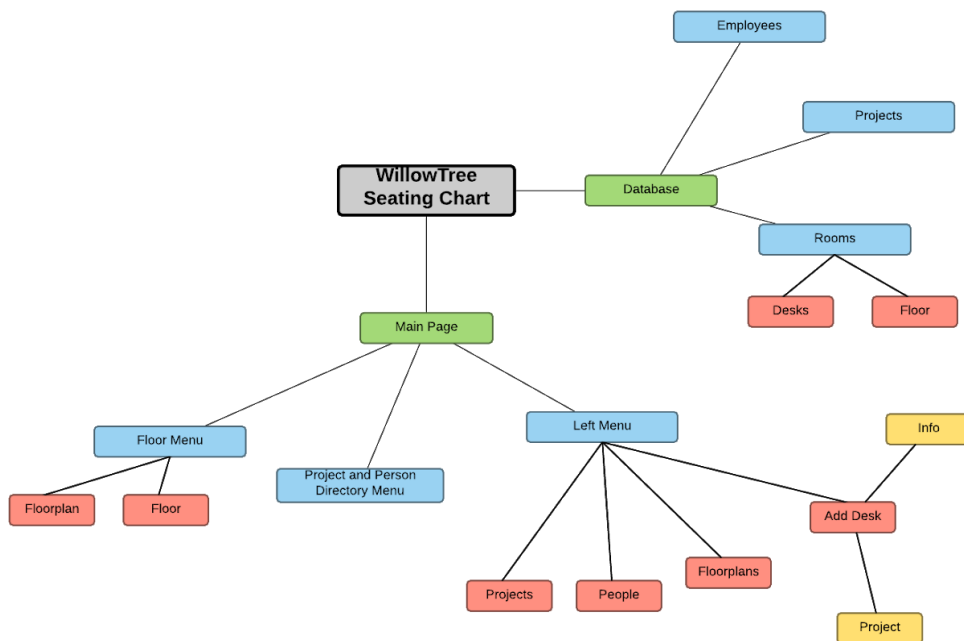
ER MODEL

Additionally, the following ER diagram shows the values of the entries tracked and the general relationship between the different entries that the web application stores.



ARCHITECTURE DIAGRAM

Below is a visual representation of the web application's organizational flow and general architecture as well as it's functionality.



CONCLUSION

Yes.