

RoomEase Code Review Document

Alex Vrhel (avrhel), Sidd Gorti (sgorti3) Jakob Sunde (jsunde), Omar Alsughayer (oasugher), Cheryl Wang (cwang7), Matthew Mans (mans1626), Weijia Dai (weijid)

Process

We had Sidd review our render module (the render.js file in our www/ directory of the phonegap project). Render.js contained functions to render each of the views for our single-page application, and a few members who worked on this module felt it was becoming bogged down with a bit too much additional logic. Before reviewing, he read over the style guides our team agreed to follow.

Review Feedback

- The comments do not adhere to the JSDoc style in the style guide, which should be fixed.
- The module has weak cohesion, since it includes an important and often complex function for each of the many distinct page views. The logic to grab and display list items shouldn't be in the same module as the logic to check all the reservation items for conflicts, for example.
- This module has calls to the request handler module, which should be the job of the various controllers. The render module should be front end and not include such direct calls, which increases coupling in its current state. They should go through the correct controller module instead.
- Some of the render functions for views (especially reservation) are very long and complex, should be separated into smaller helper functions.
- Some variable names are not camel cased, and instead use underscores, which is against the style guide.
- Commenting on complex portions of methods is insufficient in many locations, hard to follow what is going on.
- Render.js, in general should focus on routing and displaying the templates in response to user input, not all the additional logic involved in preparing the items to display.

What Was Changed

We refactored the render functions for the main modules (fridge, list, feed, reservations) to instead be located inside the controller for each of those specific modules. Then, we were better able to split those large functions into smaller helper functions inside the listController, fridgeController, feedController, and reservationController modules. These are more appropriate locations for such complex operations, and moving the functions greatly improved the cohesion of the render module. In order to facilitate this change, we also had to make the template variables for these different views visible outside of the render module. Now they can be accessed in the newly moved rendering functions.

We still think render is a cohesive and useful module, since it contains the logic to prepare each of the views, render the simpler views, and route the user to the correct view based on the URL hash. We also went through and broke up the render functions into smaller, logically grouped helpers (such as renderItem, attachListeners, and so on) that better captures the various actions we are doing when we want to render a page. This has greatly improved code clarity and structure.

Finally, we fixed all commenting and code style in the relevant modules so the comments are complete and adhere to our style guide, and are sufficient to help readers explain the code.