Progress Report

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Most of my work has gone to developing a reactive interface for ingredient input and validation. I utilized etaque/elm-form in order to create a dynamic form that could update as the user wanted and extract their input as a single recipe. That is, the form begins with no listed ingredients but as the user prepares to set the scale, an item input field appears. Said item field has 5 components: the ingredient, the amount, a dropdown with all the supported measurement types, an “Add” button, and a “Remove” button. The “Add” button makes the form concatenate a new item input field where another ingredient can be input. The “Remove” button deletes the corresponding input field and item from the recipe. So far, the only validation method for ingredients is if the user inputs a string. For the amount, the form can validate all doubles, fractions, natural number strings from 1 to 109, and rational strings starting from 0.25 to 109.75 with a 0.25 interval (so 1.34 is not valid). The measurements are also validated depending on whether the input belongs in the list of accepted measurements. The application also displays the latest version of the recipe to the right of the input form and the current output, scaled recipe to the bottom of the input form. These only updates once every part of each item has been validated, meaning that if there is an input error or if any part is empty, no update will occur as nothing is being added to the recipe. When a validation fails, a specific error message appears next to the input field in question and the rest of the page doesn’t update. It is possible to fail multiple validations at once and for multiple errors to appear. If all input fields in an item section are empty, and the “Add” button is pressed to add another item section, no errors appear as there is nothing to validate, similarly, if the “Remove” button is pressed and the corresponding item has an error, the error will also disappear. However, if there is an item with an error and the “Add” button is pressed, an error will be thrown and no item section will be added. Additionally, there is a “Reset” button in the form that will return the form to its initial state (only scale input field and no item sections). A very rudimentary scaling method is in use so far.

The next steps would be to first fix the look of the form. I have been using CSS so far and it has been very slow, frustrating, and inefficient. However, the design will be very simplistic so it won’t be too complicated. I also need to fix up the rationalizing portion. So far it only multiplies the amount of each ingredient (if it is of the float kind) by the input of the scale. What I’ll need to do is both, parse all the amounts into readable floats and fix the function so that it also rounds irrational numbers or incomprehensible rational numbers. Lastly, I have to make good tests to check everything is working smoothly. I hadn’t really gotten there yet because most of my work so far has been UI/UX related and there has been very little business logic. If time permits, I also want to allow users to convert measurements and be able to validate ingredients possible through the use of a database.