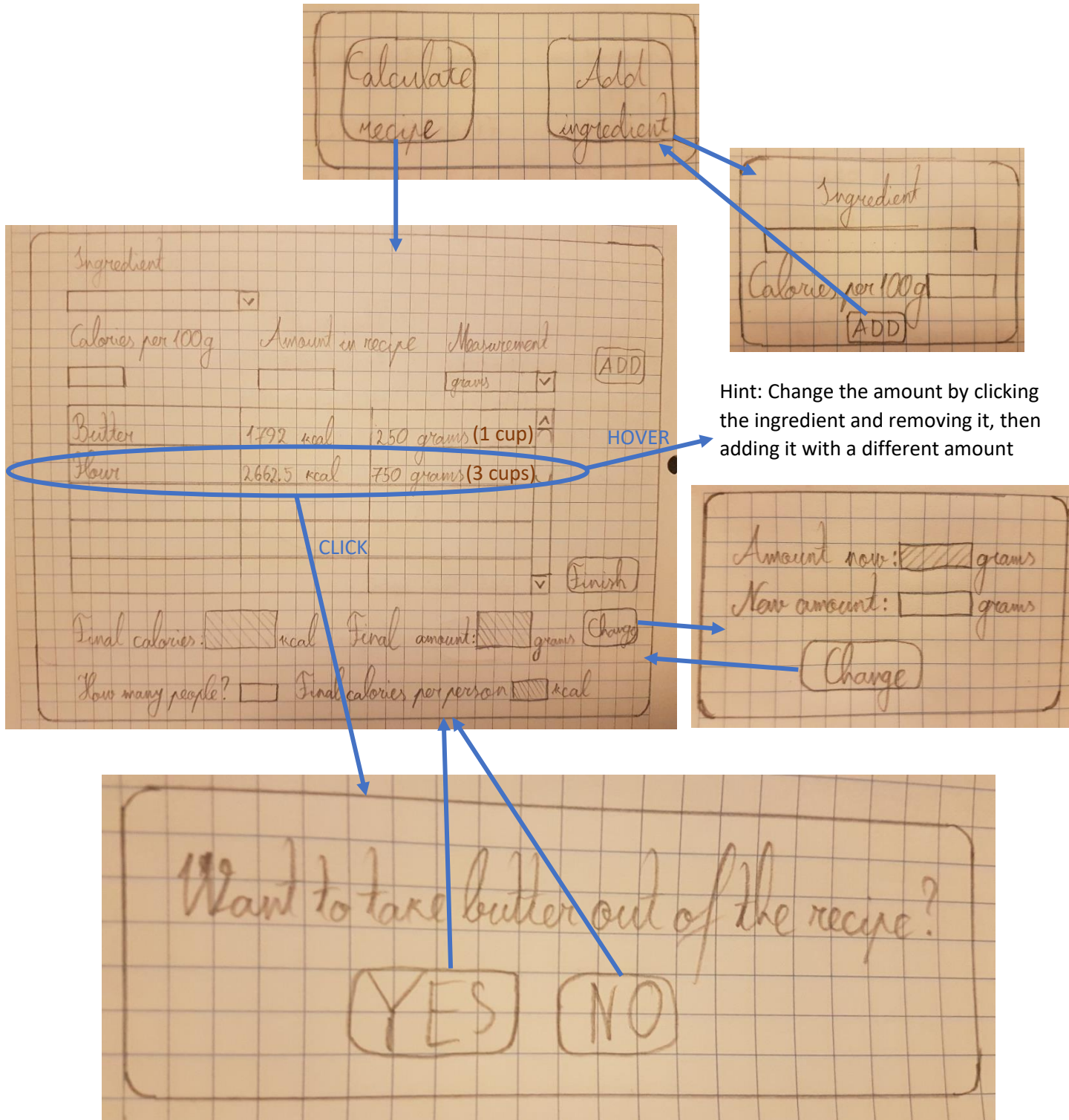


Criterion B

Design

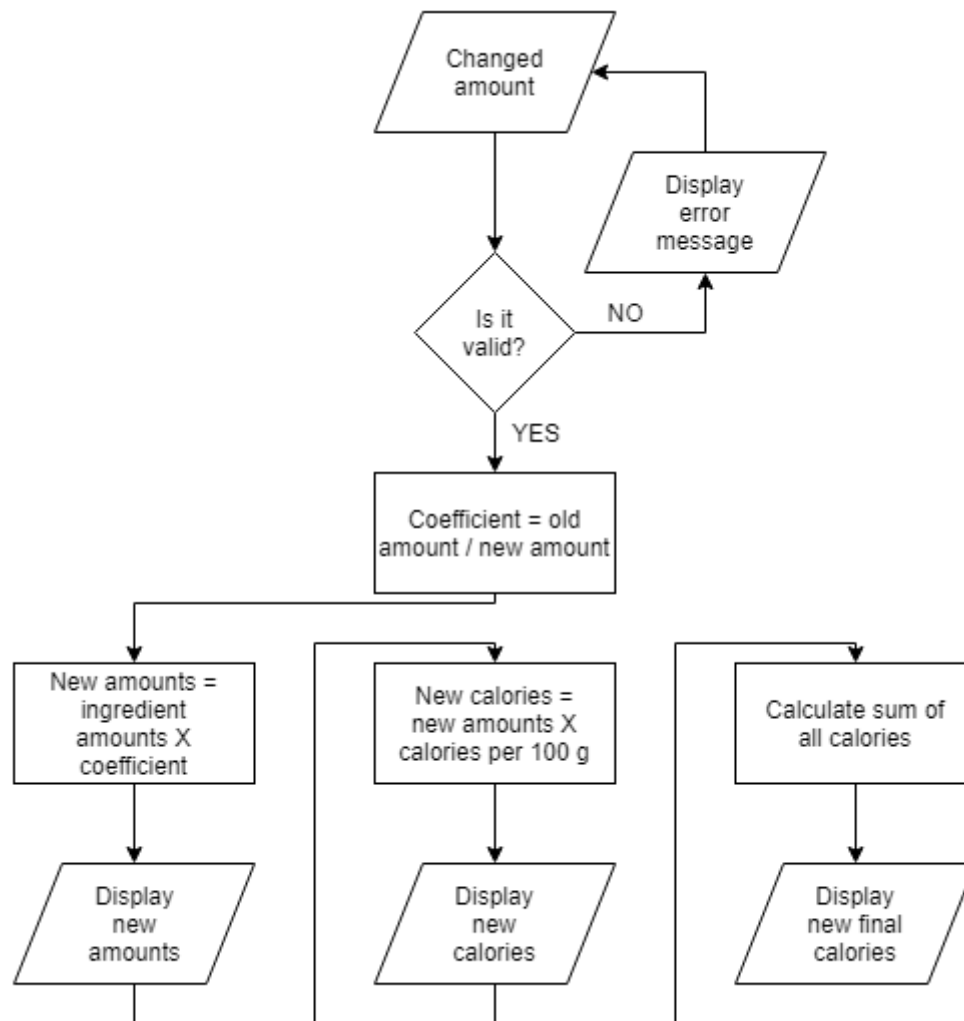


Test plan

Action	Expected result
Pressing button "Add ingredient"	Opens up a window where the user can input ingredient name and calories per 100 grams.
Pressing button "ADD" in section where ingredients are added to the database, e.g., with "Avocados" and "160.1" written in the fields	<ol style="list-style-type: none"> 1) Adds the ingredient to the database if the fields are not empty, too long or with incorrect values, and the user is redirected back to the first screen. 2) Combo box is updated with the ingredient
Adding incorrect values: <ol style="list-style-type: none"> 1) Text in the "amount" field, e.g., "asdf" 2) Too large of a number (more than 100 000), e.g., "100 001" in amount 3) Too long of a string (more than 30 characters), e.g., "Butter (bioorganic), I really like this" 4) Empty field 	<ol style="list-style-type: none"> 1) a) Opens an error message panel "Please write the amount with numbers" 2) Opens an error message panel "Please write a number lower than 100 000." 3) Opens an error message panel "Please write a name that is 30 characters or less." 4) Opens an error message panel "Some fields are empty, please write a value."
Pressing button "OK" in error screen	The user is redirected back to the screen which they came from.
Closing any window	Nothing changes and no errors are given.
Pressing button "Calculate recipe"	Opens up the big recipe-calculating window.
Choosing ingredient from combo box, e.g., Butter	"Calories per 100g" text field changes, e.g., to 716.8
Pressing button "ADD" in section where calories are calculated, e.g., adding 1 cup of butter	<ol style="list-style-type: none"> 1) The ingredient shows up in the calculation table with its name, specific calorie count (according to amount) and amount shown in grams (with the amount in another measurement in the brackets, if applicable), e.g., "Butter 1792 kcal 250 grams (1 cups)" appears 2) Final amount is calculated again and shown in its appropriate field, e.g., 250 grams are added 3) Final calories are calculated again and shown in their appropriate field, e.g., 1792 kcal are added
Adding also 40 teaspoons of sugar, 3 cups of flour and 12 tablespoons of eggs	<ol style="list-style-type: none"> 1) Sugar, flour and eggs display in the table 2) Final amount changes to 250 (butter) + 200 (sugar) + 750 (flour) + 180 (eggs) = 1380 3) Final calories change to 1792 (butter) + 773.4 (sugar) + 2730 (flour) + 279.18 (eggs) = 5574.58

Hovering over an ingredient in the calculation table	Hint is shown "Hint: Change the amount by clicking the ingredient and removing it, then adding it with a different amount"
Clicking an ingredient in the calculation table, e.g., butter	A dialog box appears "Do you want to take butter out of the recipe?"
Pressing button "YES"	<ol style="list-style-type: none"> 1) The ingredient is removed from the table 2) Final amount is calculated again and shown in its appropriate field 3) Final calories are calculated and shown in their appropriate field
Pressing button "NO"	The dialog box closes
Pressing button "Finish"	<ol style="list-style-type: none"> 1) The "Ingredient" combo box, "Amount in recipe" text field, "Measurement" combo box, "ADD" button, "Finish" button and clicking on ingredient in the table is disabled 2) "Change" button is enabled
Pressing button "Change" in section where calories are calculated	Opens "Change final amount in recipe" panel
Pressing button "Change" in the new panel, e.g., with "1000" written in the text field	<ol style="list-style-type: none"> 1) New panel closes 2) Coefficient is calculated, e.g., $1000 / 1380$ 3) Final amount is calculated again and shown in its appropriate field, e.g., $1380 * \text{coeff} \approx 1000$ 4) Final calories are calculated and shown in their appropriate field, e.g., $5574.58 * \text{coeff} \approx 4039.55$ 5) The amount and specific calorie amount are calculated and changed for all ingredients in the table, e.g., $250 * \text{coeff} \approx 181.16$ for butter
An integer below 100 is written in "How many people?" text field, e.g., 6	New calorie amount is calculated and written in the "Final calories per person" text field
Other values, e.g., "asdf", a number above 100, e.g., 101, or a number with a decimal, e.g., 2.2, is written	"0" is shown in the "Final calories per person" text field

Flowchart of changing amount needed



System top-down chart

