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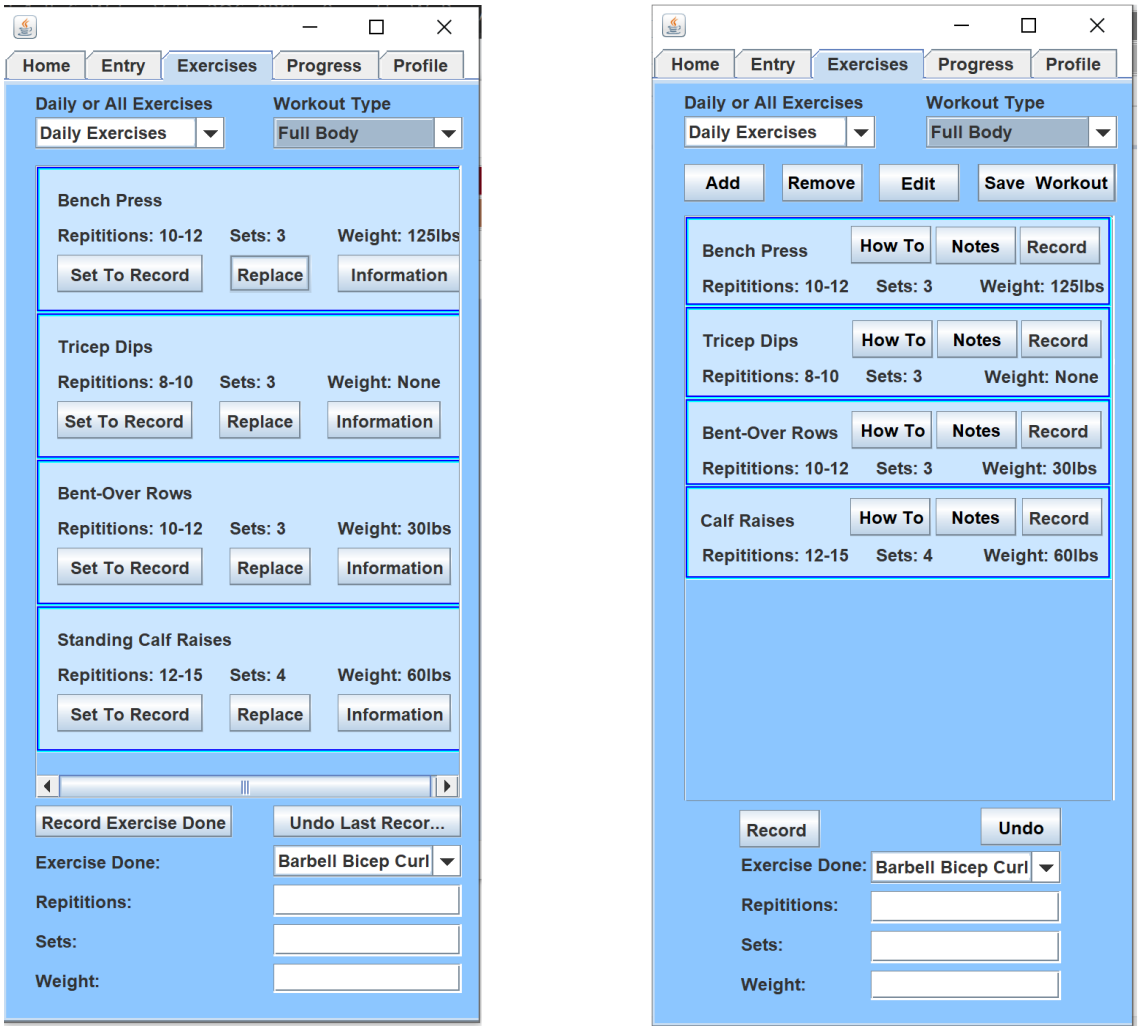
Health Application Phase 4

Screenshots:

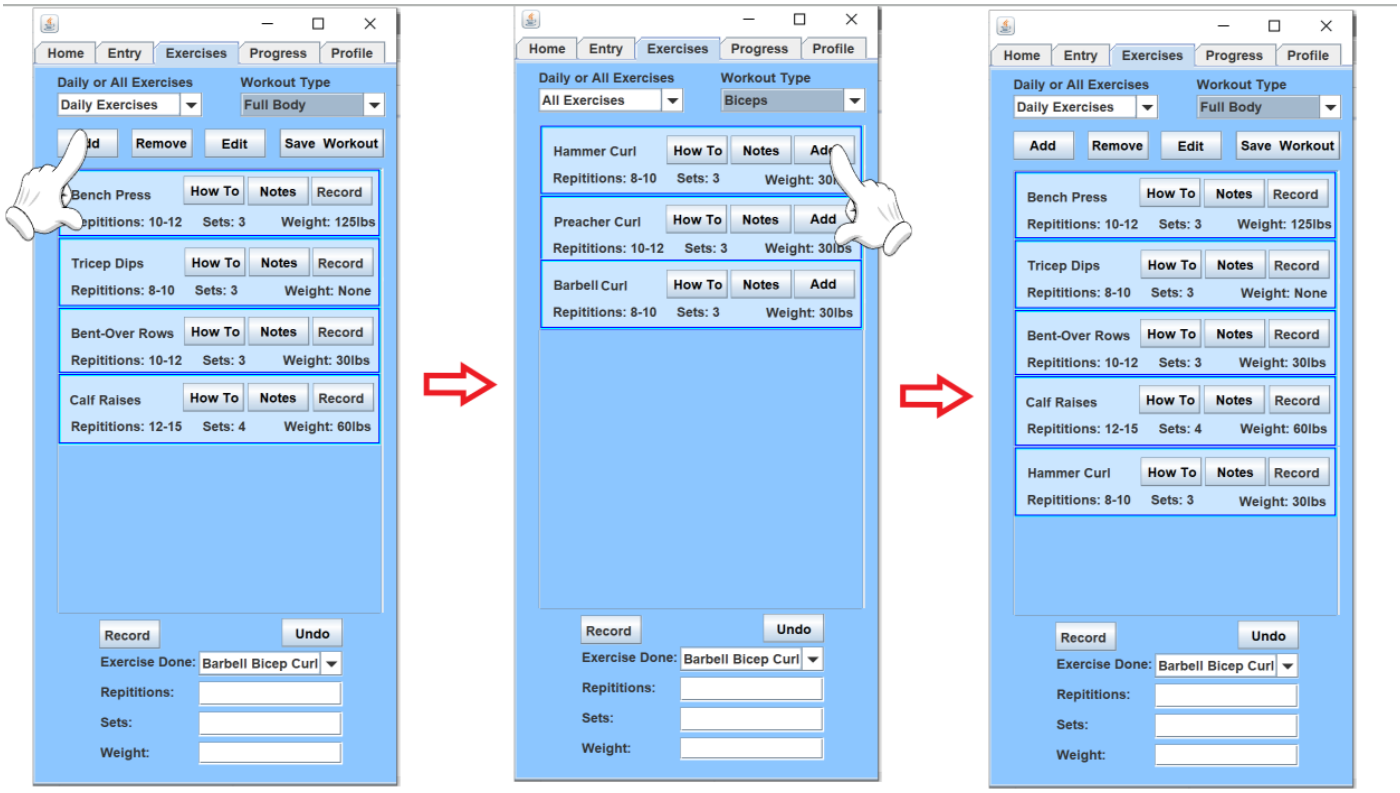


Screenshot 1: Fixing horizontal scrolling, buttons cut off, simplified buttons, swap replace with “Add” and “Remove”, and add “Record” to all exercises.

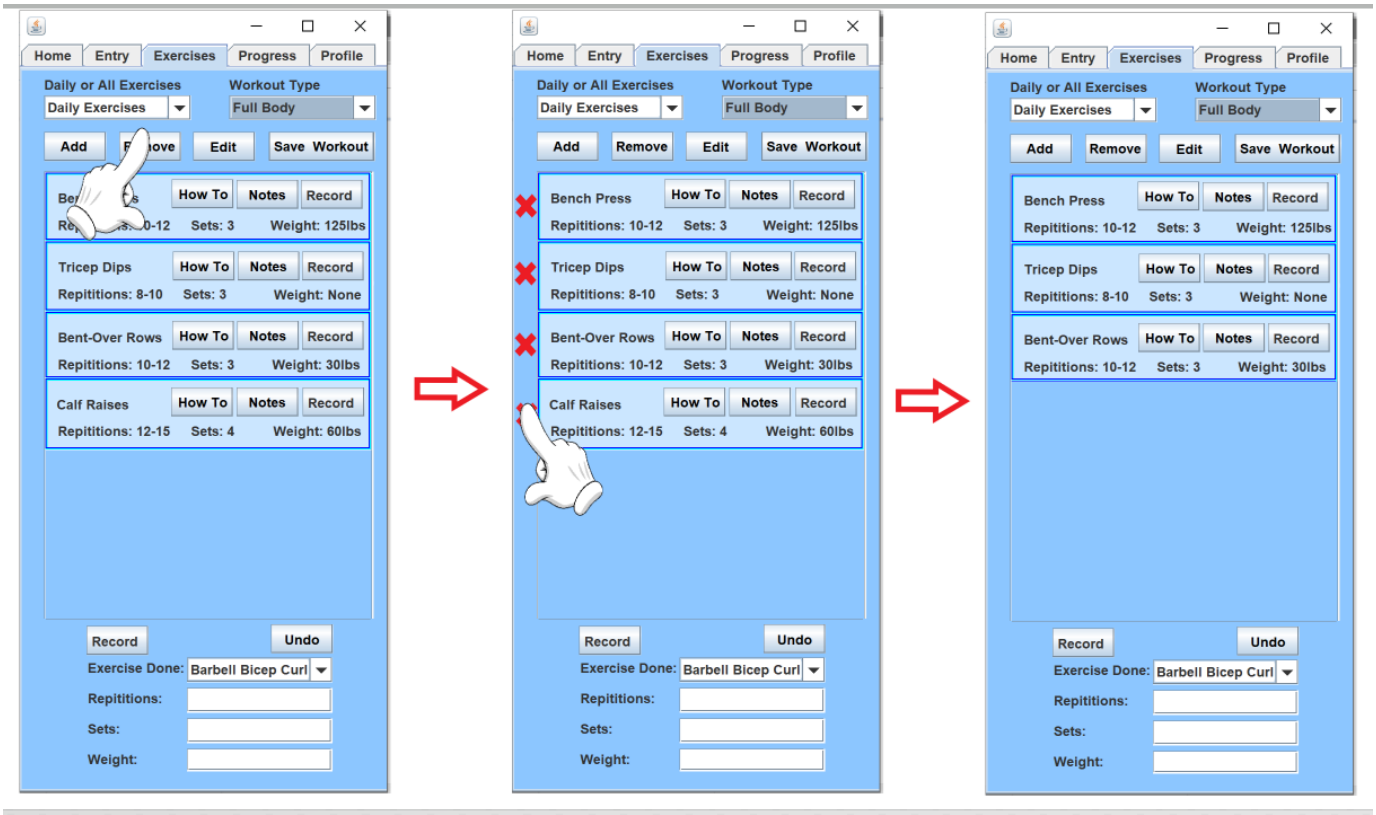
Pictured above is a screenshot of the before (left image) and after (right image) of the exercises tab of our app. The feedback that this change addressed is the overall UI of the exercise tab. Our feedback on this tab included suggestions to remove horizontal scrolling and make everything fit on the screen, which includes adjusting the screen elements so that buttons and information is not cut off. Furthermore, our feedback included a suggestion to simplify the buttons labels and placement, as well as removing the “Replace” button with a more natural “Add” and “Remove” feature. Finally, this UI update also addresses the feedback that the

exercises should all come with a button to record them; All of the recommended exercises will be displayed as shown by default, unless a feature like “Add” has been activated.

To address this feedback, we identified major changes we wanted to implement, namely adding “Add”, “Remove”, “How To”, “Notes”, and other features such as “Save Workout”, which is a new feature. After which, I identified which features should be placed at the top of the screen, toggling a new editing-type mode, such as “Add” and “Remove”, while other buttons should be included in each exercise for ease of use, such as “How To”, “Notes”, and “Record”. With these decisions in place, placing each button and reformatting the UI was an iterative process that I ultimately landed on a final design where our team felt that the features were all intuitive, and addressed all of the feedback. The buttons and information has all been fit to the screen, the feature’s labels have been simplified, made more intuitive, and finally increased the functionality of the app.



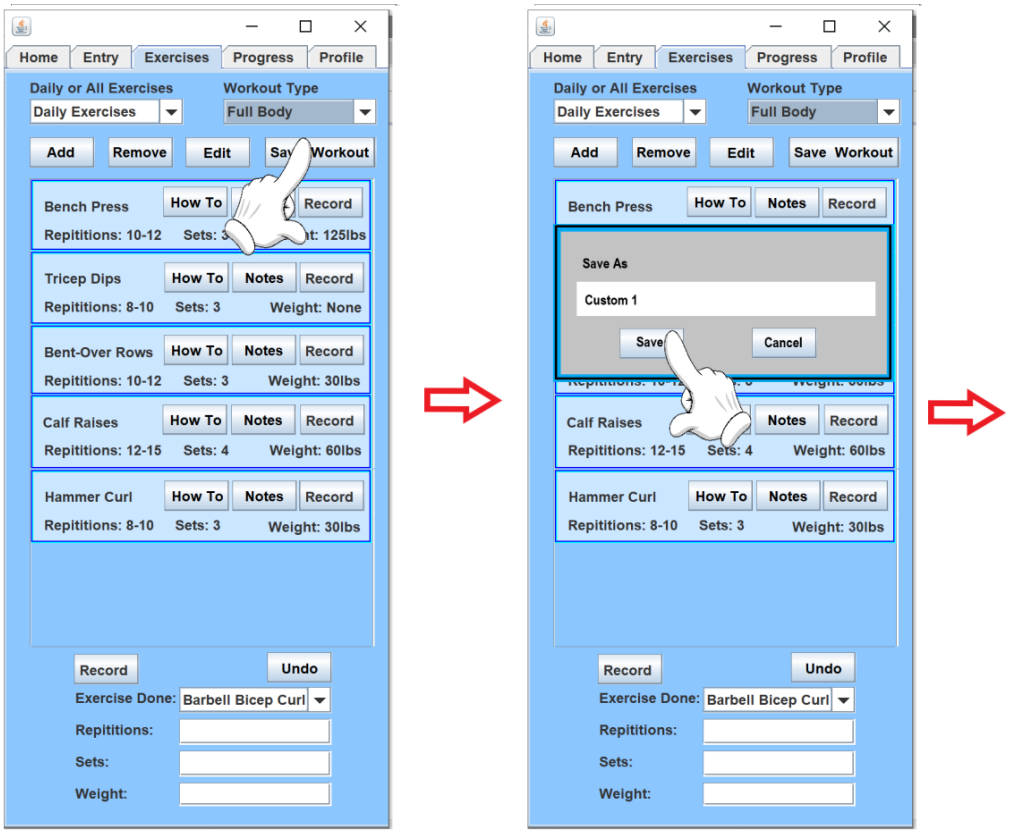
Screenshots (2) and 3: First, demonstrating the new “Add” feature.

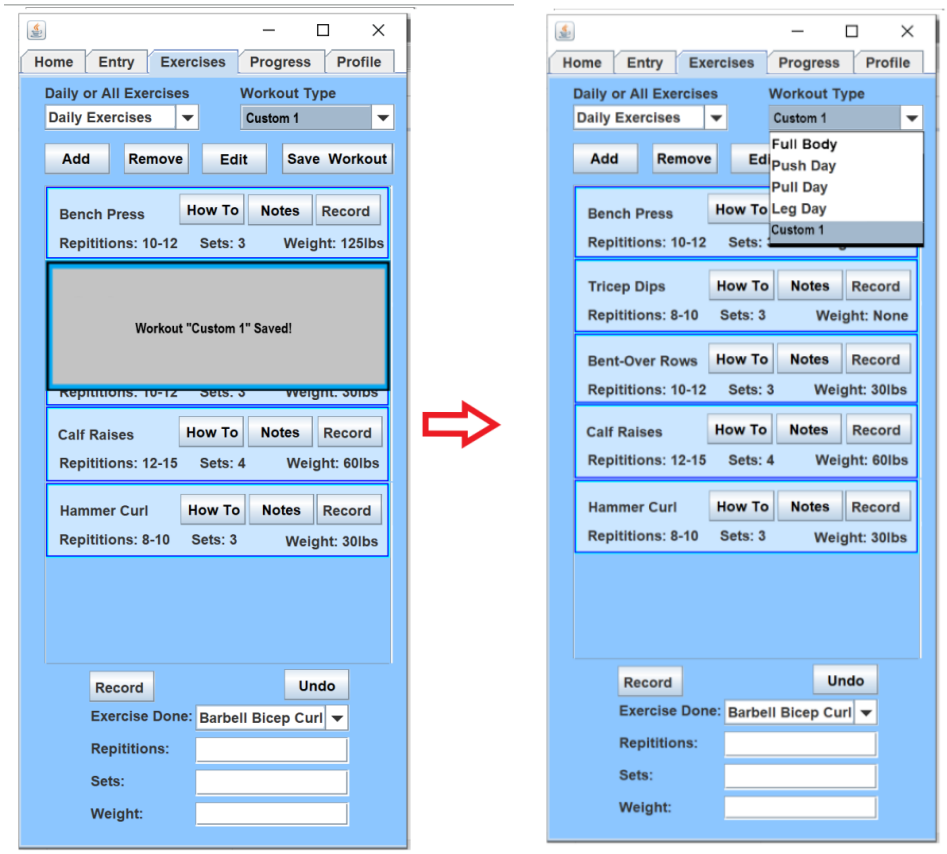


Screenshots 2 and (3): Second, demonstrating the new “Remove” feature.

Pictured above are screenshots demonstrating the use of the new “Add” and “Remove” features. The feedback that this change addressed is that the “Replace” button felt unnatural, and that the user would like the ability to directly add and remove exercises to this workout.

To address this feedback, I added both “Add” and “Remove” buttons, placed above the workouts, inviting the user in an intuitive manner to edit their suggested workout regimens. This now gives the user the ability to both add and remove exercises, providing help, shortcuts, and overall enhancing their control with these new simply labeled buttons.


Home
Entry
Exercises
Progress
Profile
Daily or All Exercises
Daily Exercises
Workout Type
Full Body
Add
Remove
Edit
Save Workout
Bench Press
How To
Notes
Record
Repititions: 10-12
Sets: 3
Weight: 125lbs
Tricep Dips
Repititions: 8-10
Weight: None
Bent-Over Rows
Weight: 30lbs
Calf Raises
Repititions: 12-15
Sets: 4
Weight: 60lbs
Hammer Curl
Save As
Custom 1
Save
Cancel
Undo
Exercise Done:
Barbell Bicep Curl
Repititions:
Sets:
Weight:


Home
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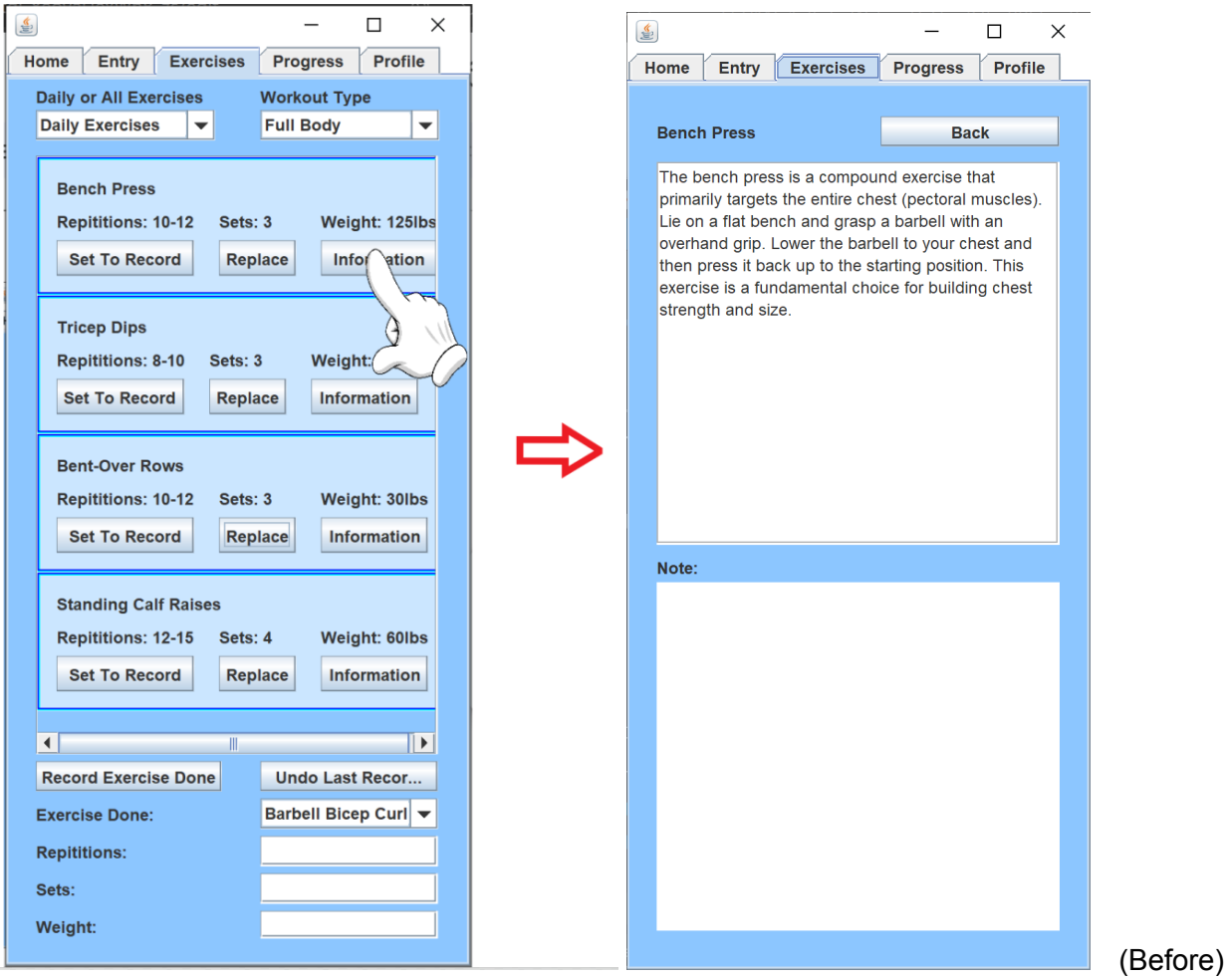
Remove
Edit
Save Workout
Bench Press
How To
Notes
Record
Repititions: 10-12
Sets: 3
Weight: 125lbs
Workout "Custom 1" Saved!
Calf Raises
Repititions: 12-15
Sets: 4
Weight: 60lbs
Hammer Curl
Repititions: 8-10
Full Body
Push Day
Pull Day
Leg Day
Custom 1
Tricep Dips
Weight: None
Bent-Over Rows
Weight: 30lbs
Undo
Exercise Done:
Barbell Bicep Curl
Repititions:
Sets:
Weight:

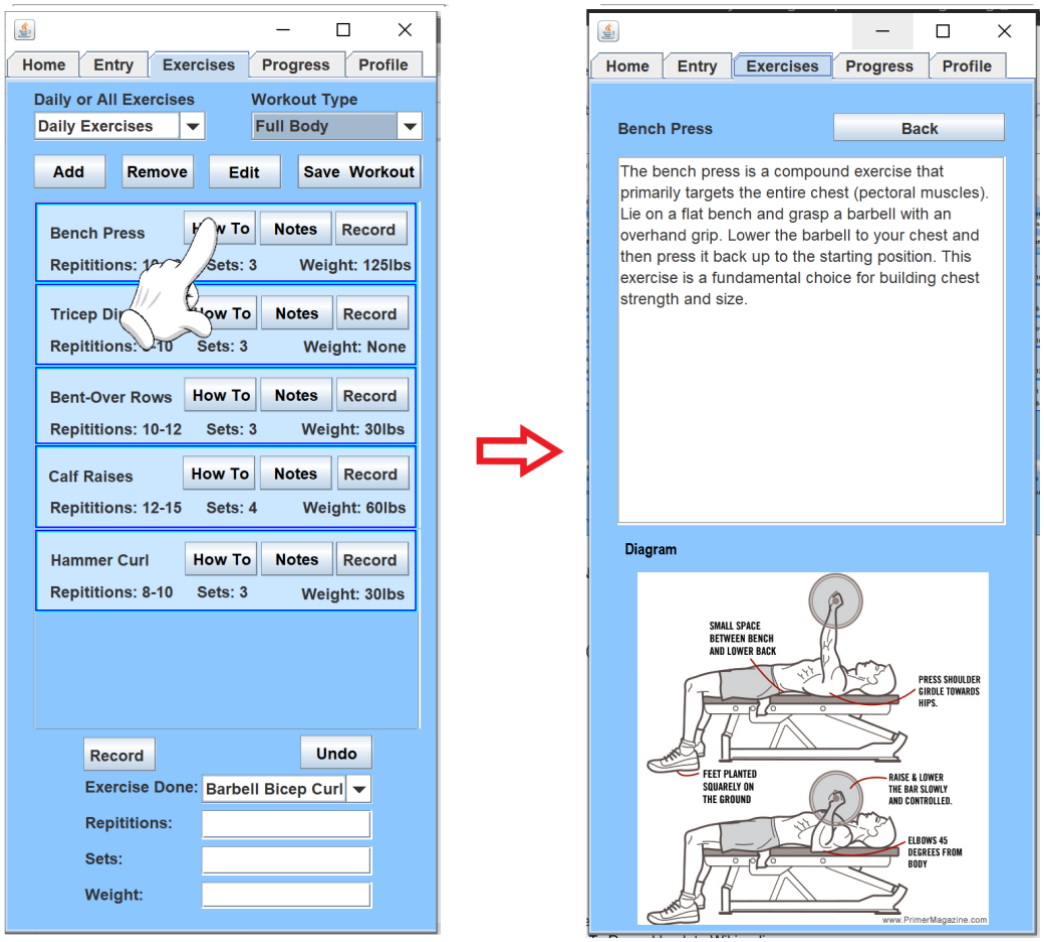
Screenshot 4: Demonstrating the new “Save Workout” feature

Pictured above are screenshots demonstrating the use of the new “Save Workout” feature. This added feature was mentioned in our Phase 2 video, and a core feature we planned on eventually adding. After our user uses our new “Add” and “Remove” features, they may find that they want to save their new workout. Now, our user can intuitively and simply save their workout with a press of a button and entering a unique name for their customized workout. We felt that this was an important addition because this new feature adds a lot of value to the app, further personalizes the user’s experience, and removes the need for a user to memorize which workouts they enjoyed the most.

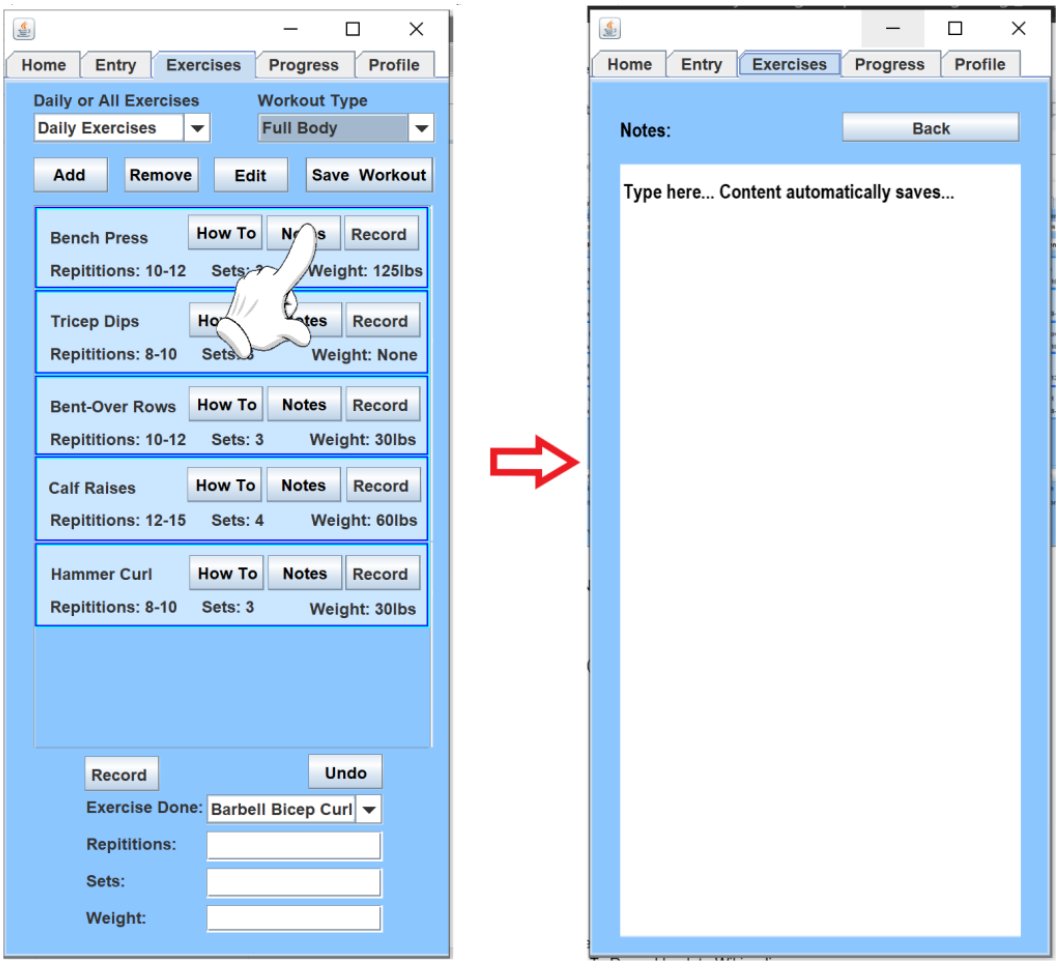


(Before)

“Information” button screen for Bench Press



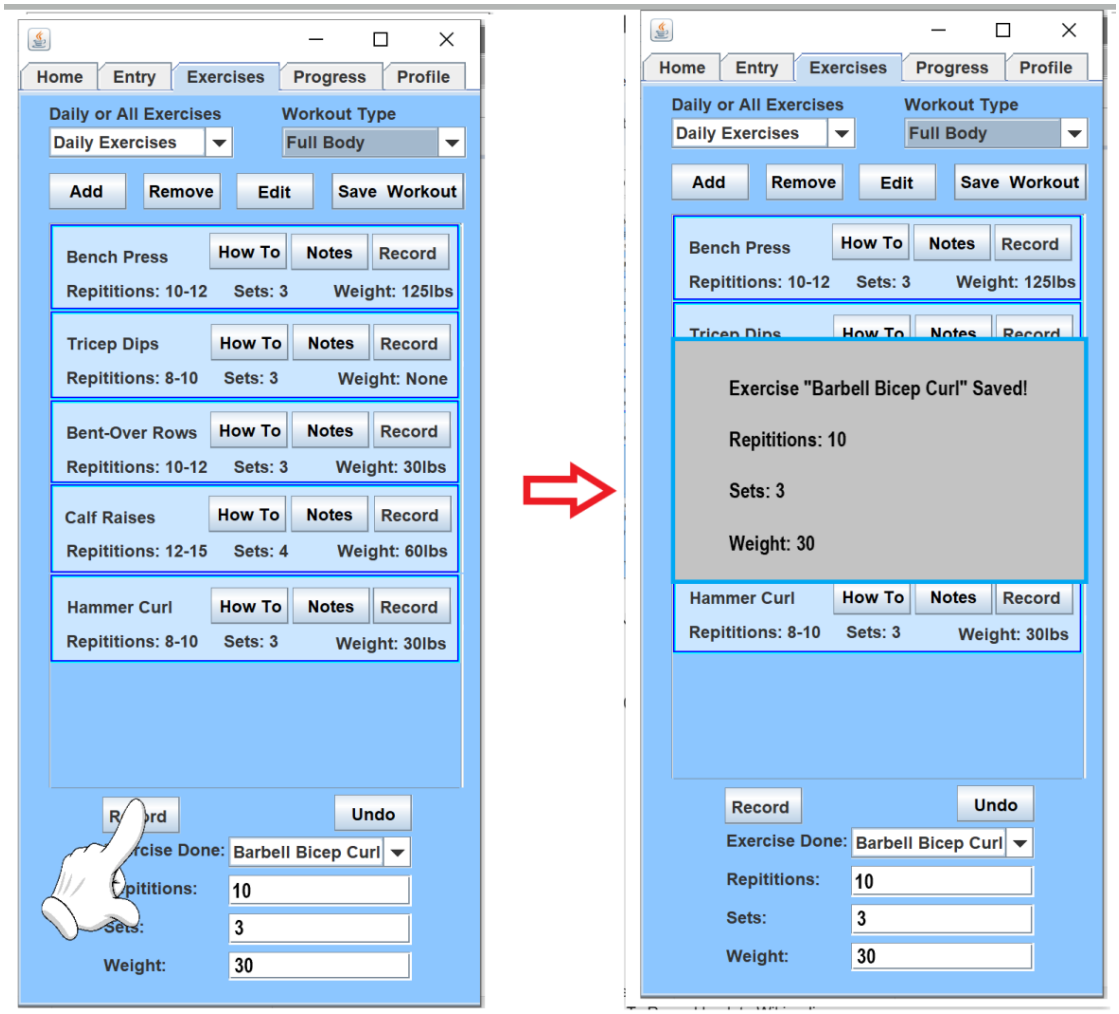
(After) “How To” screen



(After) “Notes” screen

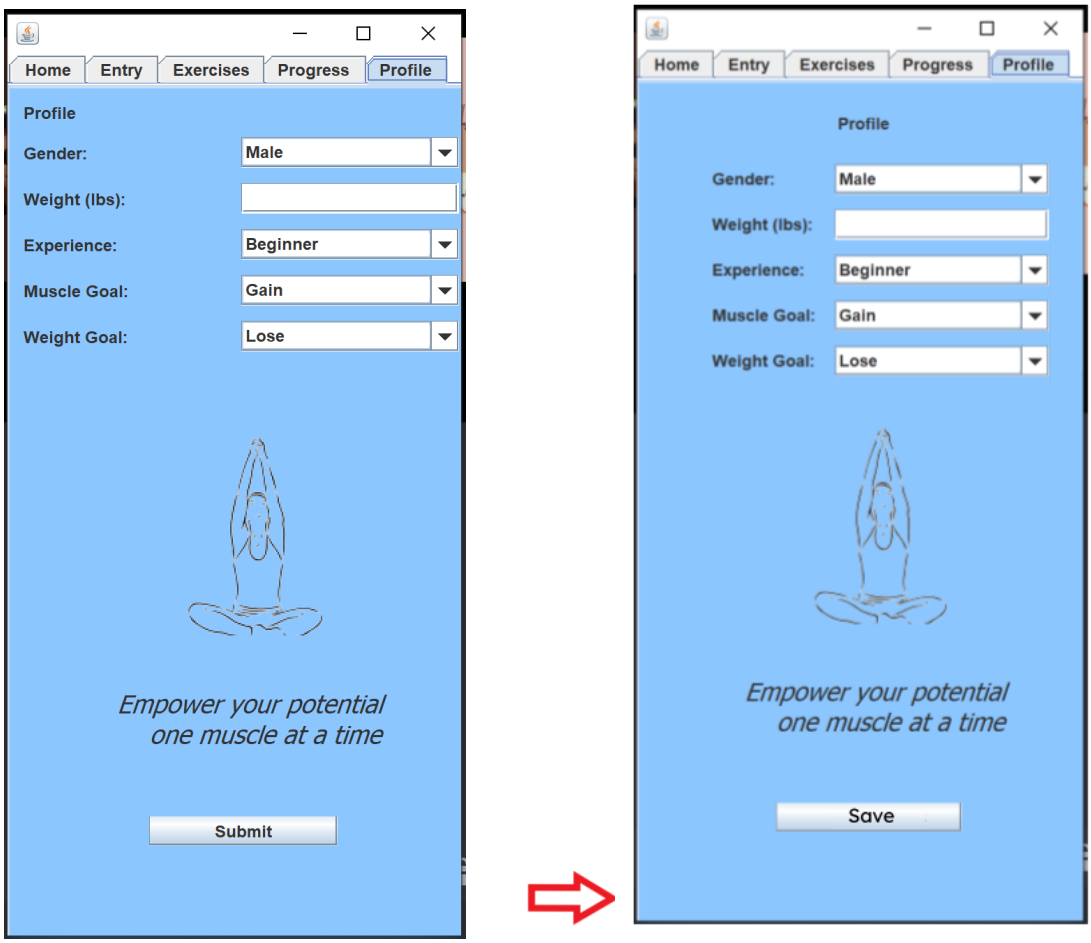
Screenshots 5 and 6: Demonstrating the new “How To” page (first) and the new “Notes” page (second), dividing the content that used to be under “Information” for each exercise.

Pictured above are screenshots demonstrating the new “How To” and “Notes” pages. These new buttons and respective screens addressed the feedback where buttons were cut off and overcomplicated. We felt that “Information” should be split up into “How To” and “Notes” to make the labels more simple, providing clearer shortcuts, and making the UX more intuitive, rather than having both of these screens and their information stored under “Information”. Furthermore, we now found space to increase the amount of information we could provide on the “How To” screen without scrolling, and included a diagram on how to perform each exercise beneath the informational text. Beyond simplifying and providing clear language, providing clearer shortcuts, we felt that this change increased the useability of the app by providing help and documentation through the new diagrams that will be included for each exercise.

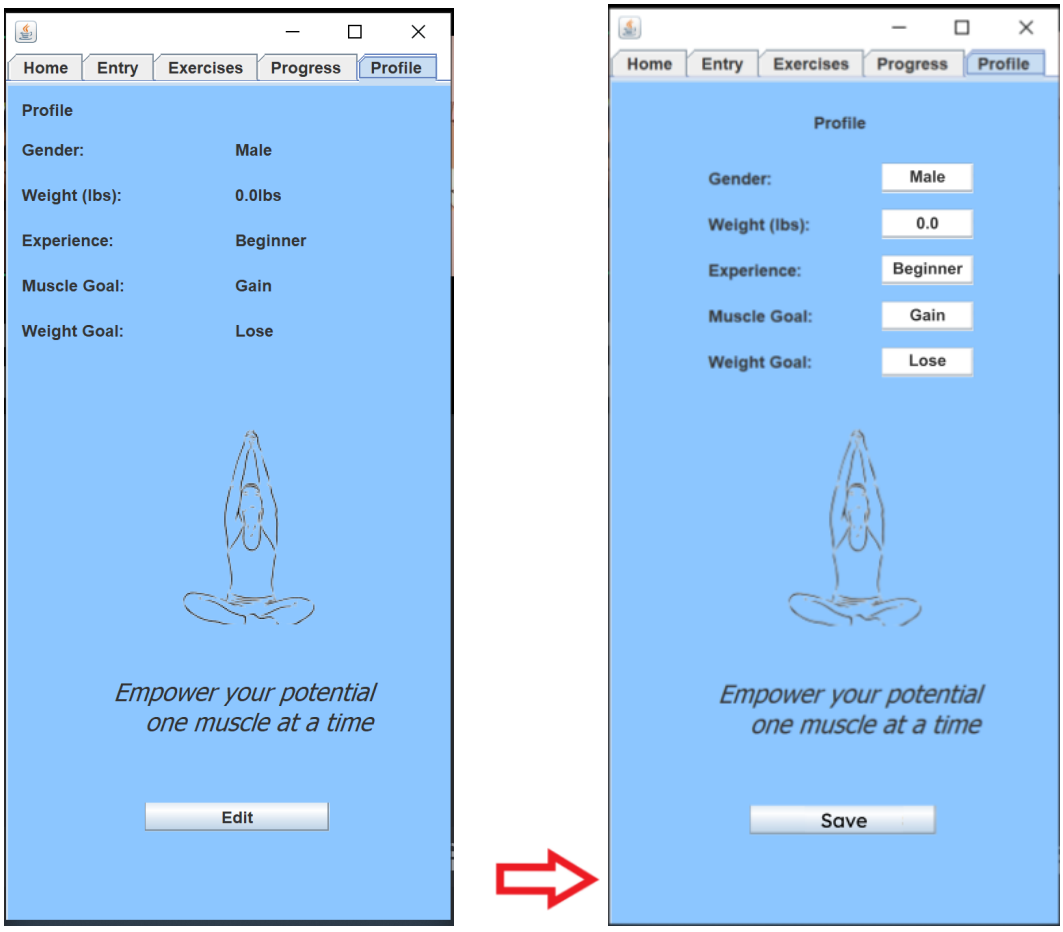


Screenshot 7: Demonstrating the new button feedback that appears after clicking a button such as “Record”.

Pictured above are screenshots demonstrating the new feedback that pops up when a user uses a feature such as “Record” or “Undo”. The feedback that this addressed was simply that certain buttons are not providing any feedback to the user after they interact with them. To address this, all buttons that do not visibly provide feedback in a significant manner will now include dialogues that pop up, informing the user of their actions being registered. We felt that this was a simple, effective, and critical change that addresses the need to “Provide Feedback” to the user. In this case, we considered adding a second “Are you sure?” dialogue, but felt that the Undo button would be rendered redundant in that case, and that the dialogue paired with the Undo button would be enough.



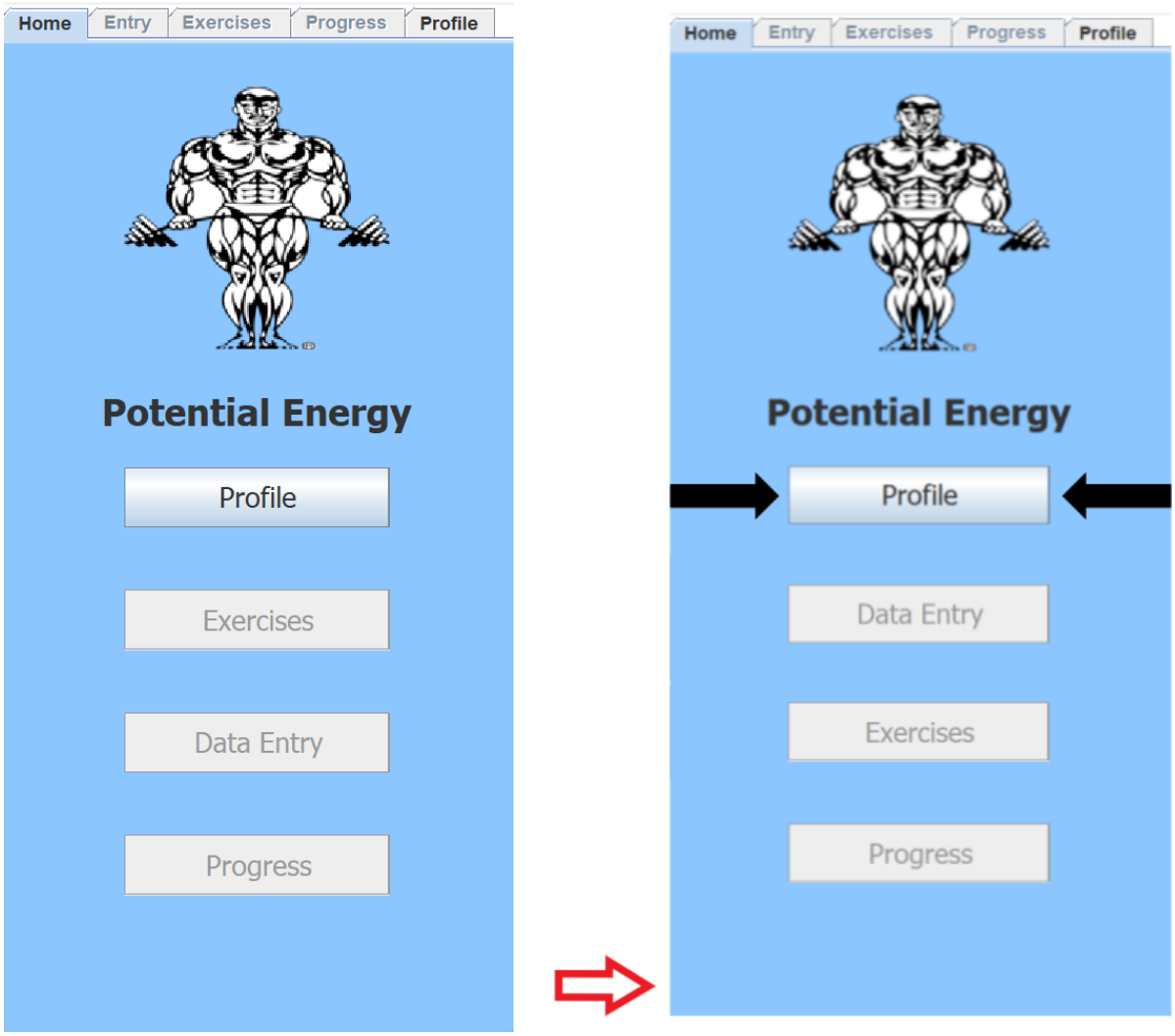
Before & After of Profile Creation Tab



Before & After of Profile Creation Tab after User has created Profile

Screenshot 8 & 9: Centering Profile Tab elements and changing button text to make it easier for users to read and use.

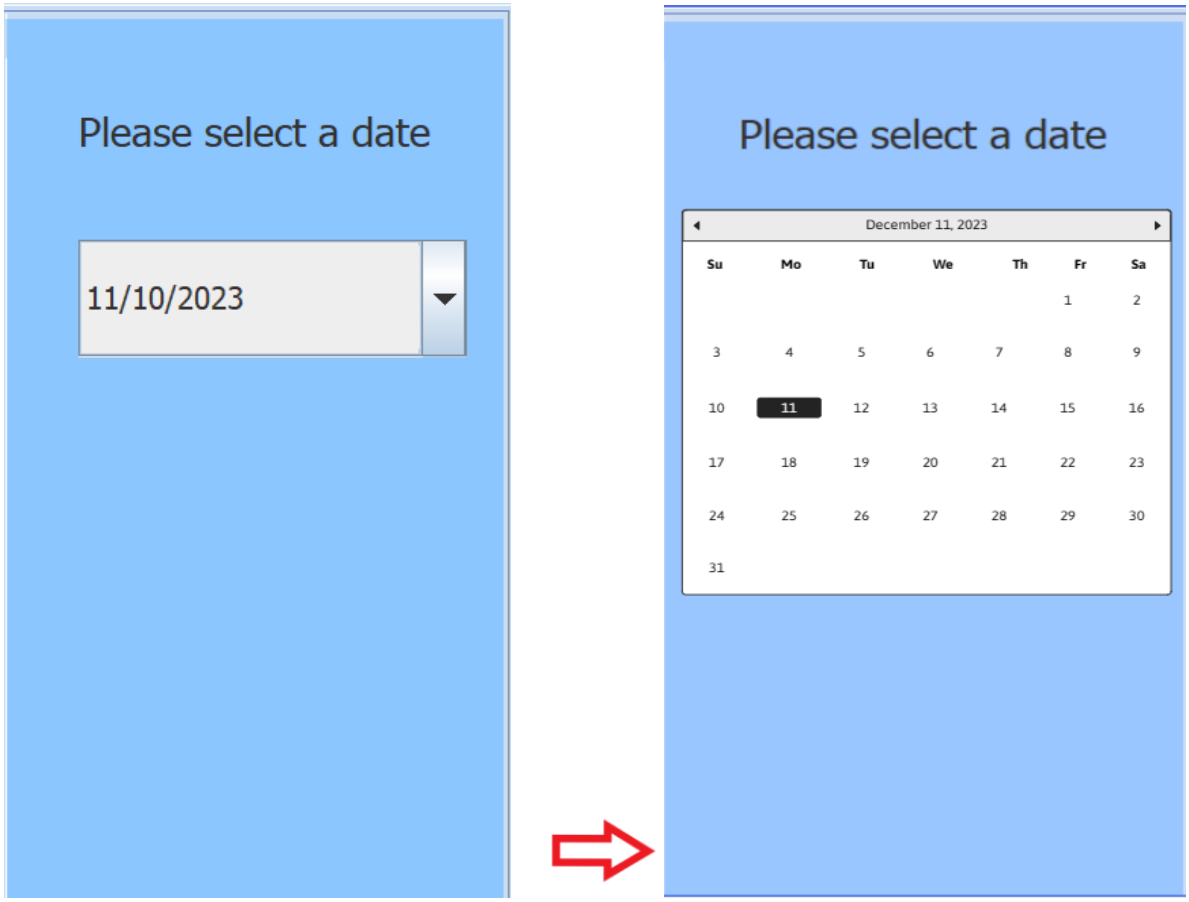
The above screenshots demonstrate the Profile Tab before a user enters their details and after they have entered their details. The feedback addressed before the user enters their details is that there was too much a gap between the labels and answer boxes, making it harder for the user to read and enter their information and visually unpleasant. Additionally, another piece of feedback addressed is that the title “Submit” for the button to submit the user’s details once entered could be misinterpreted. The word “Submit” sounds like the user will not be able to edit their information once they click it and seems like they are sending it somewhere which might violate their privacy. To address this, the title of the button was changed to “Save” to show users that they can change their details once entered. After a user saves their information, the screen that displays the information they displayed also had too much of a gap which was addressed. Also, the lack of backdrop behind the answers was addressed because it made it harder to read and less professional. By adding the white backdrop, users’ eyes are directed immediately to the information they want to see the most without any strain.



Before and After of the Home Tab when a new user first launches the application.

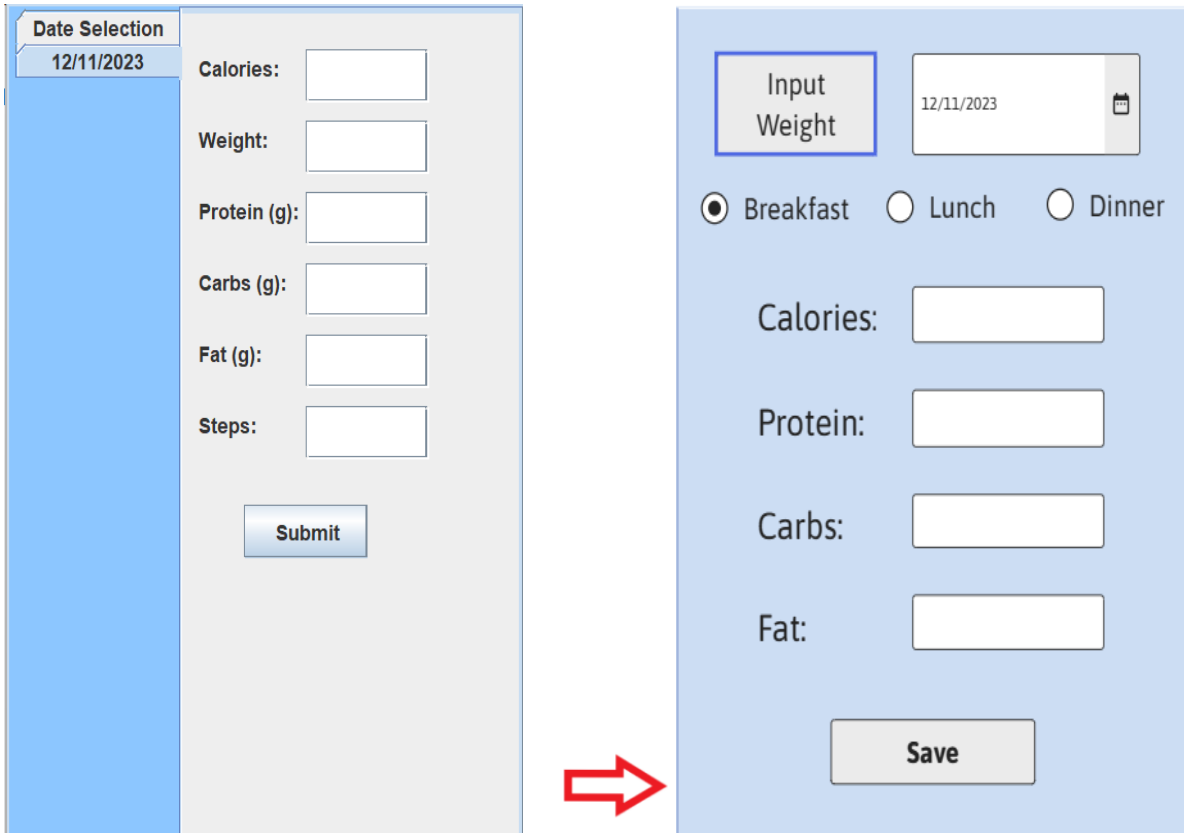
Screenshot 10: Adding arrows pointing to the Profile button to guide new users to creating a profile first and switching the Data Entry and Exercises buttons.

The above screenshots demonstrate the Home Tab before a user enters their details and after they have entered their details. The feedback addressed is that the Profile tab is confusing to newcomers because they do not understand why the other tabs are grayed out. To address this, arrows were added to point to the profile to guide new users in the right direction. These arrows would then disappear after the user is done creating their profile. Another feedback addressed is how the ordering of the buttons is not the same as the tabs which would mess with a user's intuition and make them second guess when clicking a tab. To address this, the buttons, "Exercises" and "Data Entry", were switched to make it consistent with the ordering of the tabs.



Screenshots 11: Changing the date selection into a calendar picker
(Before and after for the initial data entry tab, please note background color changed due to snipping tool)

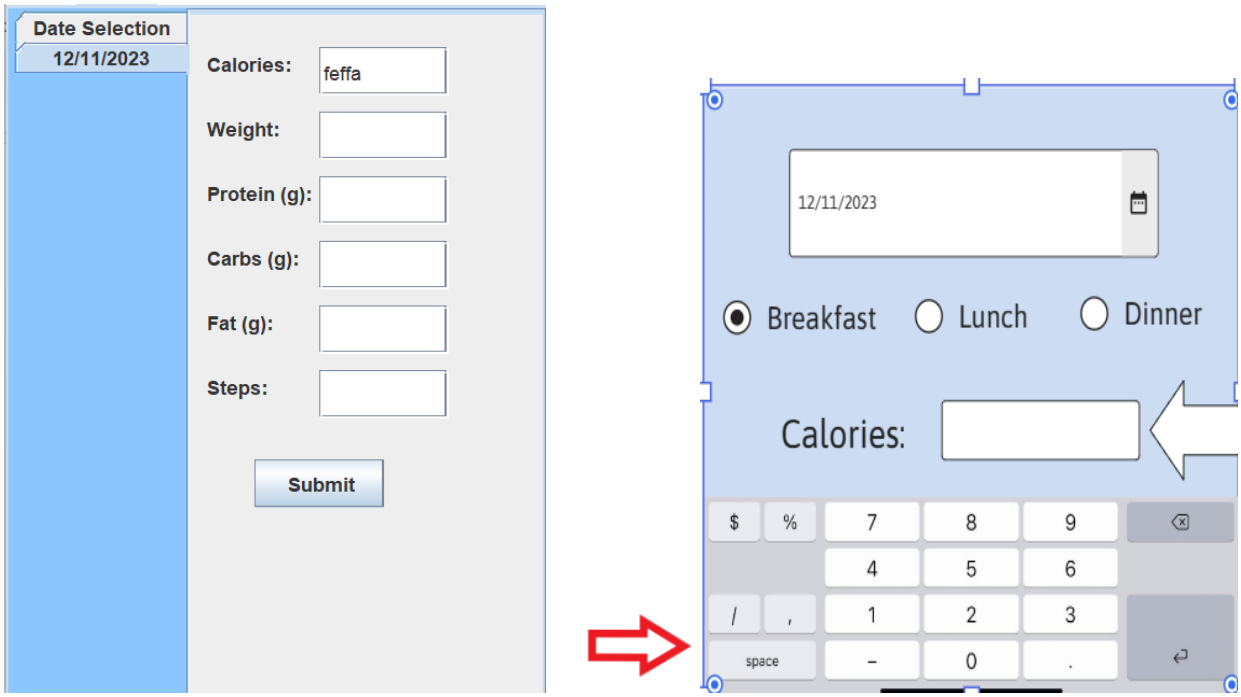
The above screenshot reveals a much more desirable way to choose a date to enter information for. Instead of users having to first press a button to be able to choose a date, then selecting the desired date, this new method becomes much easier and intuitive. Users only have to select one time (instead of twice), and users instantly recognize the function of the tab. This method also allows users to enter information from any date. The previous method only allowed for the last 25 days to be entered, but this method allows the user to choose any date. Overall this promotes two design principles we discussed in class, intuitive design and concise/simply usability.



Screenshots 12: Changing Data Entry tab includes a way to navigate to new date, “Submit” button changed to “Save” button, more intuitive way to enter daily information (Before and after of selecting a date to enter information)

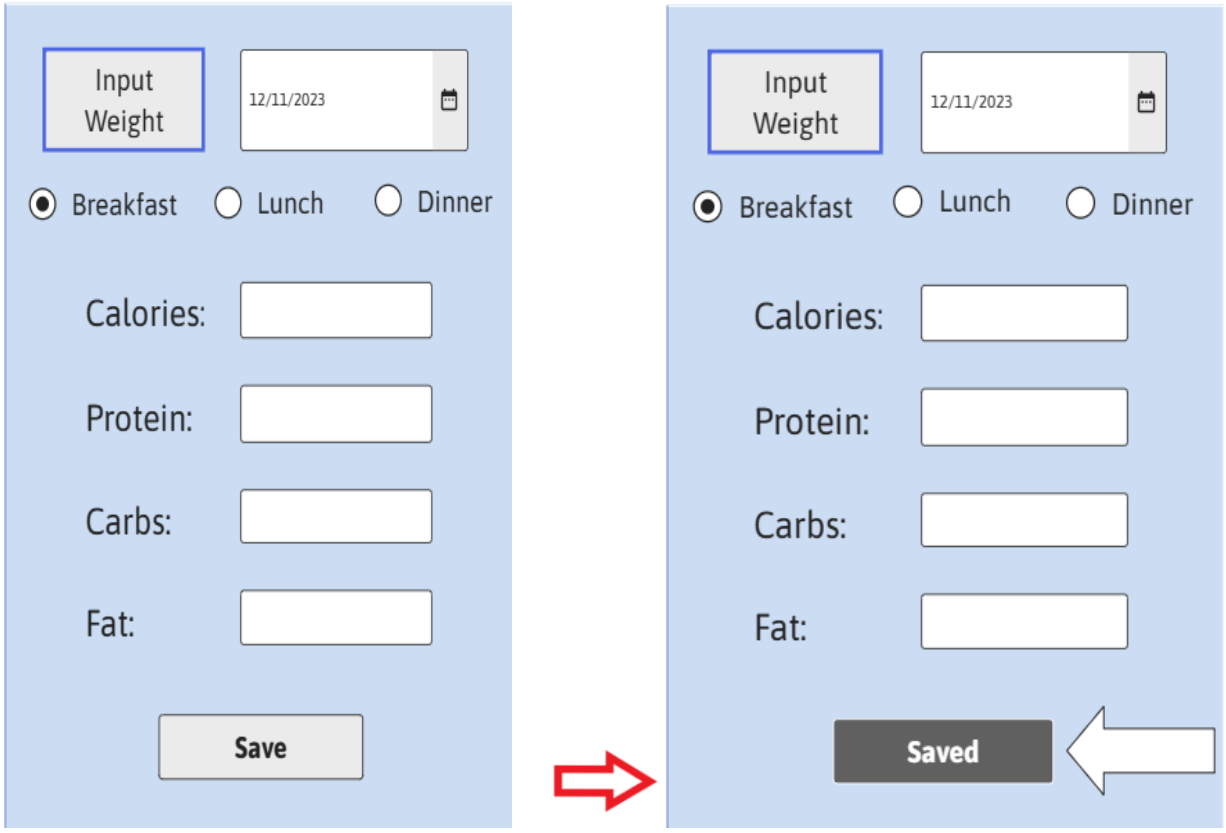
Multiple changes were made to this tab. First, instead of having each additional tab add up on the sidebar (which can cause an overflow of tabs), users can recognize the date at the top and have the ability to change it when needed by pressing the calendar icon. This promotes an intuitive way for users to select a new date to enter information and prevents overloading of the user’s memory. Secondly, most users will not enter their information all at once. Users will not want to aggregate all the calories, protein, fat, and carbs at the end of the day and then enter the information. Instead, users can input the information incrementally by pressing the radio buttons. This is much more intuitive as well and makes input easier. We also decided to split up weight input and food input. Since we have split up the food input into 3 different parts (breakfast, lunch, dinner), adding weight here would not make sense. Thus, we decided to let users add their weight by pressing the input weight button. This makes sense as well since users only add their weight once a day, either at the end of the day or beginning. Lastly, instead of the button stating submit, it has been changed to save. This makes more sense since users will understand pressing the button means the data is saved. Overall, this fix addresses major

usability issues that existed in the previous phase: reduces users memory load, more intuitive design, and simplistic implementation.



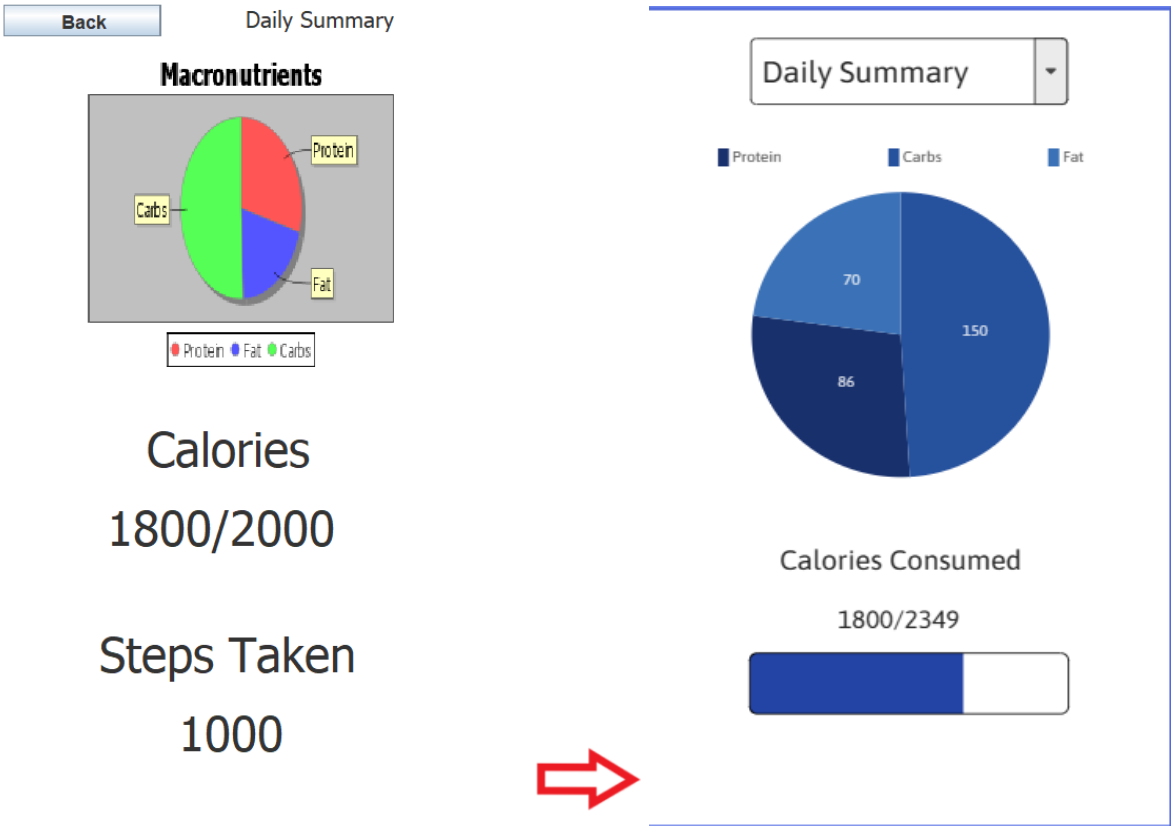
Screenshots 13: When pressing a text box to enter information, only numericals are supported, preventing false data entry
(Before and after of inputting information into a text field)

Another issue we determined was the ability for users to enter “false” information into the text fields which will wreak havoc on the backend and prevent users from inputting accurate information. To solve this issue, users will only be allowed to enter numericals when they press on a text box. This encourages users to enter accurate information while preventing the program from breaking, providing a more pleasant experience



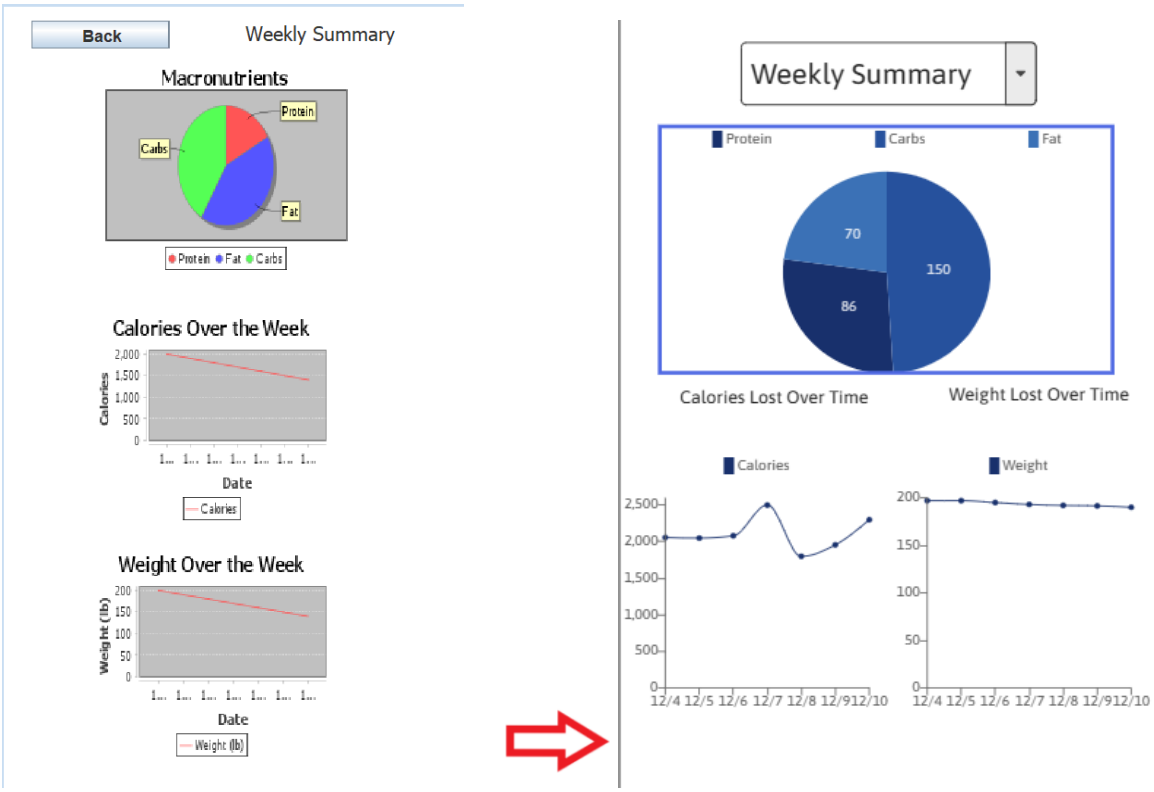
Screenshots 14: Indication that the inputted data has been saved
(Before and After pressing the save button)

We wanted users to know that when they press the save button, it actually works. Thus, when the button is pressed, the data is saved in the backend and the icon changes colors. This will reassure users that the information is saved and stops them from worrying.



Screenshots 15: Complete redesign of the Visualizations Tab
(Before and after pressing the daily summary button on the Progress tab)

The daily summary underwent several changes. First, the original back button was changed to a click and scrollable interface. This reduces the actions occurring on the screen since the user will no longer have to go back and choose a new summary. Instead they can just click on a new type of summary to reveal the new screen. This provides a more simplistic and simple design. Next, the UI of the bar chart has completely changed to represent a newer type of look while maintaining the blue theme our app contains. By providing a more aesthetically pleasing pie chart, users are more satisfied with their progress. This same reasoning is why we also update the calories consumed in a day. Now there is a progress bar which shows the amount of calories consumed so far out of the total allowed. Overall, the daily summary has been updated to provide easier navigation and a more pleasing visual experience.



Screenshots 17: Complete redesign of the Visualizations Tab
(Before and after weekly summary update)

These photos represent the other types of visualizations presented as Weekly Summary, Monthly Summary, and All Time Summary where there is the addition of two line charts detailing calories lost and weight lost over the time period. We still decided to keep these 3 visualizations since they are the most pertinent. But once again we changed the back button into a select down to make the transition to new summaries more seamless. We also changed all 3 graphs into more visually appealing versions. The pie chart, similar to the daily summary, has a much cleaner look and the line charts now display all the items on the x-axis. We also continued to use the blue theme to make the overall program consistent. Ultimately, the overall appearance of the visualizations have been improved and the usability of transitioning across summaries has become easier.

Timeline:

Week 1-2:

- Develop the exercise tab layout by creating panels for each set of features, adjusting spacing and labels, and introducing new buttons.
- Then redesign the exercise components for improved visual appearance and functionality.
- Prioritize these updates for their simplicity and the organization and efficient progression they promote, based on experience.
- Then add functionality to the "How-To" and "Notes" buttons, including adding diagrams to all of the How-To pages.
- Prioritized these updates so that these features may be finished at once, rather than splitting up its work to be completed at separate times
- Change the tabular form of date selection into a calendar selection, effectively reducing the complexity of the program
- Split up the weight input and food input into two new screens, allowing for the food input to be separated by the meal type (e.g. breakfast, lunch, dinner)
- Split the food input by the type of meal to allow users a simpler form of data entry
- Explore different GUI's for the visualizations for a more aesthetically pleasing model, so users can be more pleased with their progress (includes pie chart and line charts)
- Consider new forms of visualizations which incorporate workouts as well
    - Distribution of body parts worked out, favorite exercise etc.
- Explore different color schemes and models of aesthetics to improve the application's look to make it more friendly and "official" looking.

Week 3-4:

- Add the "Remove" button functionality by making red X's visible after clicking "Remove", which will remove exercises from the list by searching through the list of currently recommended exercises (backend coding).
- This is prioritized here because "Remove" is the easier of the two "Add" and "Remove" buttons, allowing the programmer more time to get familiar with the code before taking on the hardest new feature "Add".
- Next add the "Add" button functionality. This breaks down into two major steps. First, switching the screen to display all exercises after the "Add" button is pressed, and second, replacing the "Record" button with an "Add" button for all vital features to be present when selecting which new exercise to add to the users list.
- Then add the "Save Workout" button functionality. This can be done by simply prompting the user for a name to save the workout as, then by adding the custom workout's name to the drop-down menu for "Daily Exercises", and through some backend list structures,

we can save all of the exercises in the exercise list that can be recalled later when the custom workout is chosen.
- This sequence facilitates a natural flow for testing the addition, removal, and saving of exercises.present when selecting which new exercise to add to the users list.
- We are prioritizing this as such because it allows us to test the natural flow of adding and removing exercises and then saving workouts.
- Adding an indicator which shows that when the data is added, some type of visualization shows the user the data is saved
- Consider new types of navigation methods to transition across different types of summaries
- Prototype new visualization methods that pertain workouts/exercises
- Experiment with chosen color schemes and models of aesthetics to improve the application's look to and make it more friendly and “official” looking.
- Prototype visualizations to a more aesthetically pleasing model, so users can be more pleased with their progress (includes pie chart and line charts)
- Look into algorithms which accurately create goals for users or consider allowing users to input their own goals which can be monitored

Week 5-6:

- Add "Feedback" to all the buttons like "Record" and "Undo" which currently do not display visible or obvious feedback, for improved useability.
- Prioritized these updates as such because they are quick fixes that can be done at the end.
- Then check all final details, address any bugs, usability issues, and apply optimizations where it may be simple to upgrade the code.
- Implement visualizations to a more aesthetically pleasing model, so users can be more pleased with their progress (includes pie chart and line charts)
- Implement the decided color schemes and models of aesthetics to improve the application's look and make it more friendly and “official” looking.
- Only allow users to enter numerics to the data entry tab, so backend errors do not occur and encourage accurate data input
- Implement the new forms of visualizations regarding workouts and exercises
- Implement the new type of navigation regarding transitioning to new summaries
- Implement goal-setting for users so users can work for their goals through the app
- Consider new ways to track the user’s progress such as steps taken in a day, amount of micronutrients consumed, and injury reports
- Finally, conduct user testing and gather user feedback, and iterate based on feedback.

Assumptions Inventory:

Assumptions about App Users:

- Users have an understanding of common workouts and practices.
- Users have a basic understanding of fitness terminology.
- Users have an understanding of common workouts and practices.
- Users are motivated enough to continue using the app, consistently, finding and using uniquely curated and customized workouts.
- Users have a wide range of fitness goals like weight loss, muscle gain, and overall well-being.
- Users are health-conscious and interested in their visualized progress and goal tracking.
- Users are interested in the exact amount of macronutrients that need to be consumed each day whether it be for bulking, cutting, or simply curiosity.
- Users will like the additional features of tracking micronutrients and water consumption for the day, and other advanced progress tracking methods.

Assumptions about Users not well-served:

- Individuals who are not interested in or committed to fitness activities may not find the app relevant.
- Users seeking highly specialized or professional fitness guidance beyond the app's scope may not be adequately served.
- Individuals without access to a smartphone or those uncomfortable with mobile applications may not benefit from the app.
- Users with severe physical limitations that restrict their ability to perform common exercises may not find the app suitable.
- People who prefer a more hands-on and personalized approach to fitness coaching might not be fully satisfied with the app's self-guided nature.
- Users with specific cultural preferences or requirements not addressed by the app's content may not be well served.
- Those with low digital literacy or limited experience with technology may find the app less accessible.
- Beginners may want to explore a wide range of workouts, and even different types of workout plans such as running, calisthenics, and yoga/pilates since they do not know what interests them
- Beginners may feel overwhelmed by the large array of exercises that are provided by the application
- Users who lack access to the gym may find it difficult to perform the stated exercises
- Females may find the workouts provided catered too much to the male audience