Meal Planning - Design Refinement Report
Miguel Contreras, Santi Gutierrez, Aisha Jones, Marissa Morones, Vy Nguyen

I. Design Changes

First, we added an account section in the sidebar menu where users can view their personal information. Secondly, we implemented the Grocery List as well as Favorites section. We also added more dishes to the Lunch and Breakfast sections so we could upgrade our prototype to include a search bar feature. We made some small design changes to the font, color and layout to make the overall appearance of the prototype more consistent and visually appealing.

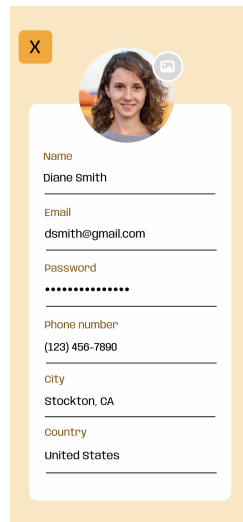

Figure 1.
Sidebar menu preferences

Figure 2.
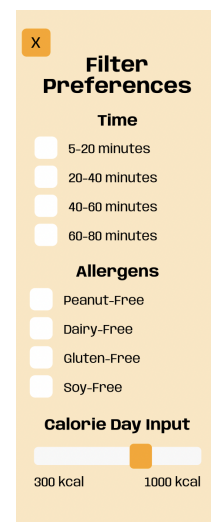Personal info

Figure 3.
Dish info page

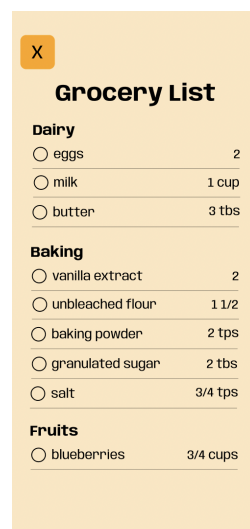*Figure 4.*
Filter

Figure 5.
Daily calendar

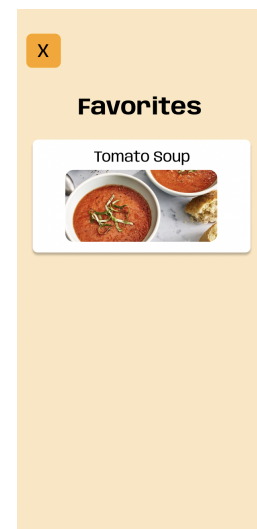*Figure 6.*
Grocery list

Figure 7.
Breakfast menu

Figure 8.
Favorites

II. A/B Testing

- Driving Question:
  - Does changing the design of the monthly and weekly calendar from showing icons for meals that were added, to instead having a clickable text icon such as, "2 Meals", result in a more intuitive design?
- Hypothesis:
  - It is hypothesized that changing the monthly and weekly calendars to remove the meal icons will not only make it easier to view the meals for the selected date, but also lead to better usability due to the user not having to click on small icons and therefore reduce the chance of deleting the incorrect meal item.
- Experiment to Test Hypothesis:
  - In this experiment, as shown in Figures 9 and 10, variation A would be the monthly calendar view which contains meal icons for each date. Variation A could potentially be messy if numerous meals are added to the same date. As shown in Figures 11 and 12, Variation B would be the new design, which would implement one clickable text button that shows the number of meals added to a specific day. When this clickable text button is clicked, the daily calendar view would pop-up, as shown in Figure 13, and the user could then remove the meals from that screen as needed.
- Explanation of Choices:
  - We initially chose to show the meal icons to the calendar because it seemed that it would be easier to view the meals that were added to the calendar, however, the icons are small and therefore it can be difficult to click on the correct meal to delete it. The implementation of one clickable text button would allow the user the ability to click and view all the meals that they added to one day. Also, the user would be able to easily remove the meals that they no longer want while preventing the mistake of deleting the incorrect meal.
- Expected Results:
  - We hope that the user will be able to view the meals by date, from the weekly and monthly calendar screens, and be able to delete the meal, or meals, they no longer want without accidentally deleting the other meals they added. We also expect that the user will not have to struggle to see which icon is the correct one, since the meal icons will be larger on the new screen.
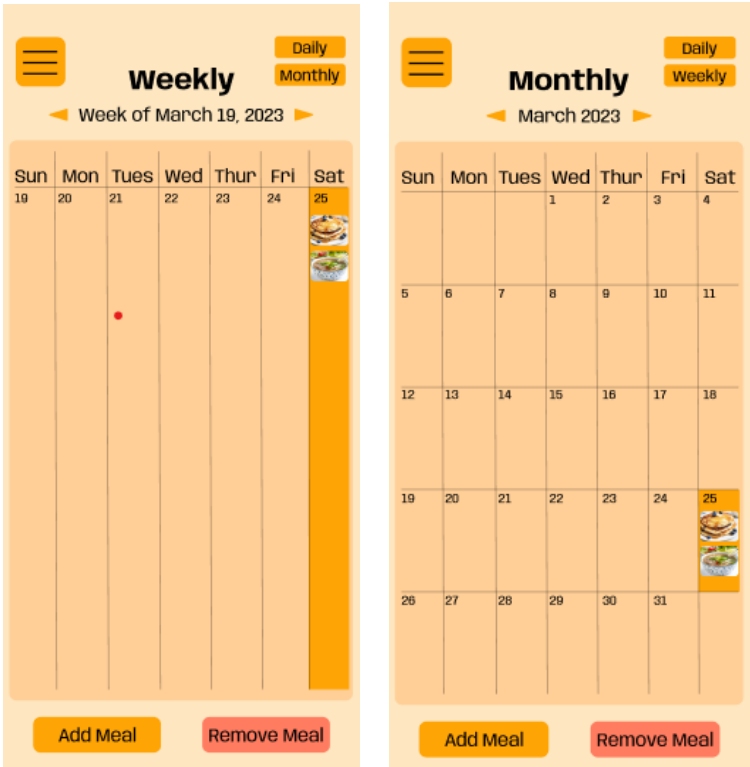
Figure 9. Icon Weekly View   *Figure 10.* Icon Monthly View

Figure 11. Text Icon Monthly   *Figure 12.* Text Icon Weekly   *Figure 13.* Text Icon Daily

III. User Feedback

- **User 1**

        User 1, who will be called Mary, had a good experience with our prototype. She was easily able to complete all of our tasks, but she ran into two issues. The first issue was that she did not realize that she was able to scroll through the meals. The reason for the confusion could be that the prototype is on a computer and not on the phone as we intend our app to be. A solution could be to add a scroll bar on the side of the screens to indicate the screen can scroll. The other issue happened when the task said to remove a meal. Mary clicked on the meal icon itself rather than the "Remove Meal" button at the bottom. A reason for this issue could be that the button wasn't noticeable enough. A few solutions to this issue is to add a "Remove Meal" button on the meal itself if is was added or make the original button larger or brighter. After Mary completed the tasks, she made a few suggestions such as searching for meals that have a specific ingredient, changing the first three meal types to "savory" and "sweet" with a new filter option to be breakfast, lunch, and dinner, ability to add her own recipes, and the ability to customize the meal ingredients along with a note section. Overall, Mary thought our prototype was great and useful.

- **User 2**

        User 2, who will be called Jessica, enjoyed our prototype and its real world implications. During her run through the prototype, she was able to complete each of the tasks in under five minutes with little time needed to stop to think about which key was the correct one for the specific task. However, there was confusion in regards to viewing their profile. After selecting the menu option Jessica did have some trouble finding the option to view her profile. This may be due to the size of the text for "Edit Profile". Instead of selecting this option, she had moved onto the next task. The second area where there was some confusion was with the icon for Filtering the meals, and the icon for favorites. Both of these icons did take time for her to recognize, but she did successfully complete both tasks associated with the icons within twenty seconds. Following the interview, Jessica commented that the overall interface and design of the prototype is very convenient for people that struggle with grocery lists and finding new meals. She enjoyed our product very much.

- **User 3**

        User 3 who will be named Brian, completed the tasks at a good pace. The first task of viewing the profile might have been due to nervousness but I noticed that he was clicking the wrong button and clicking on the profile picture. I noticed that this was common for him to do when searching for food to add to the meal planner as well. Brian stated that for Task 4 "Search for Vietnamese Pho" , the search button should be more easily accessible on the meal planner page itself to get faster results. Brian also stated the pictures on the calendar should be bigger. The icons and buttons for the filter button was

not clear at first for Brian but when moving through the process he was able to filter the correct time. I believe this had to do with not adding "filter" onto the icon. Brian did not realize what the icon meant. He also did not know what to do after filtering. There should be a "save" button added to the filter to give feedback to the user of doing the task right. After completing the tasks list the user Brian gave feedback about how he loved the pictures and the ingredients listed on the meal planning. He thought this made it easier to shop for the right items you need to make the meal. Initially our team thought about adding more items for health related goals the user might have. Brian thought of adding this as well. He thought of making the day's calorie tapped out at a certain number where the user feels comfortable and reaching their goals.

IV. Prototype
- **Prototype Link:**
  https://www.figma.com/file/84l6cjhJpR0c83HfmvahGG/My-Meal-Planner?node-id=0%3A1&t=4x8Vmzwt654RsFV0-1

- **Prototype Task List:**
    1. Log in with an account
    2. View your profile
    3. Add Blueberry Pancakes for Breakfast for Saturday, March 25
    4. Search for Lunch Vietnamese Pho and add it Saturday, March 25
    5. View your grocery list
    6. Remove Vietnamese Pho
    7. Filter Lunch recipes with cook time from 20 - 40 minutes.
    8. Mark Tomato Soup as your favorite