FeedMe Final Report

FeedMe is a mobile application that provides suggestions on what and where to eat depending on user specified filters. The goal of the application is to find cheap, healthy food options in nearby, convenient restaurants. This report details the design process of FeedMe, first introducing the problem, research on the problem, the design and justifications for these design choices and findings from a heuristic evaluation of the application and user testing.

The design problem

With so many choices available to people, deciding where to eat can be difficult. Eating healthy is a goal for many people, but sticking to it is difficult while managing time and a personal budget. Shopping for groceries and preparing meals can be time consuming, and eating out can be expensive or unhealthy. Many health-conscious consumers elect to cook at home, meal prep, or visit only select trusted restaurants because they would then have more control over the quality and nutrition in their meals. Between individuals, priorities can vary between specific nutritional details, schedule limitations, or budget restrictions. In order to provide useful suggestions, these varying priorities should be accounted for in some meaningful way as many convenient fast food restaurants have started to provide a range of menu items with some more healthy than others.

Research

Character Profiles

Our group first identified a number of user personas, which were used to guide design during the ideation phase. Having considered the needs of different groups of individuals such as soccer moms, gym goes, or average joes, we based our research on two methods: secondary research and surveys.

Secondary Research

Based on our research, there doesn't seem to be a direct competitor to our application, however there are tools that provide functionality for nutrition look up and tracking. Menu items for restaurants are generally only available in their own dedicated apps. Rather than acting as a direct fitness companion or food ordering system, a niche exists for showing all available choices and filtering them.

Our biggest competitor is the mobile app "Myfitnesspal". It incorporates gamification in its account creation, nutritional tools and recommandation components. This gamification mechanic came to be part of our ideation and brainstorming for the design.

We also incorporated questions about Myfitnesspal and other related competitors for our survey to gather more information on how our target audience uses such apps.

Survey

A survey was created in order to form a general overview of interest in this project. Surveys allow us to gather many responses as well as include some open and closed questions to help avoid biases in our design selection. We surveyed individuals of different age groups and genders, below are the sections in our survey:

- How likely one is to use a mobile app with specified features
- How important it is to filter for food with specified restrictions
- How important it is to sort for food with specified health factors
- If they have used MyFitnessPal, and how helpful it has been to achieving nutritional goals
- If they have used a similar app, and how helpful it has been to achieving nutritional goals
- Subjective questions on what healthy food is and how to find affordable healthy food

Although “Fitness-minded” individuals were targeted with our survey, their responses to our questions were highly varied. From the survey results there are a few results where the respondents agreed:

1. the high importance of cost and close proximity
2. specific trending diets such as ketogenic diets are unimportant

Based on these results, we found that a wide number of filtering options should be provided, as nutritional priorities vary highly.

Design and Justification

FeedMe’s main feature is a map with pins, indicating nearby restaurants with potential meals that matchup with user preferences. Pressing on a pin will display additional information about the restaurant’s location, hours, and menu choices. Menu choices have nutritional information displayed in a custom legend, making easy to interpret and understand at a glance.

A filtering menu is present, allowing users to specify for options such as “vegetarian”, which would reduce or increase the number of pins visible to the user as appropriate. Desired meals and locations can be saved to user profiles for quick access later. Restaurant recommendations appear as alternately colored pins on the map, and meal recommendations along with them.

Providing tailored suggestions for each user requires that we collect more information from each user. The initial design process is entirely visual and based on large buttons, instead of using a form with a large number of fields. Using buttons and pictures increases visual appeal and enhances the user’s sense of agency.

Combining the map with a filter allows us to show the minimum amount of information necessary for a user to make a decision, reducing clutter. Images are integrated with information in all areas of the application, enhancing the visual appeal and quickly conveying information as minimally as possible. Alternating colors are used to highlight alternative choices and GUI elements.

Heuristic Evaluation and Findings

Many of the reported issues with our original design were with incomplete buttons and menu spacing. Several menu headings and buttons were not intuitive and unclear according to the evaluation. As a result, navigation throughout the app was a common problem; we added back buttons in places that can be found in other apps and followed more conventional gestures and patterns to address this. In the profile view, it was noted that there was too much unused space and crammed everything else too close. We minimized the white space in the profile and spaced out the information provided, though it largely remains the same.

Another concern the heuristic evaluation revealed was the lack of variety in the application, mainly the diversity of the restaurants. Prior to our final design, we had the same restaurant as a placeholder throughout the app. For a more realistic experience, we added different restaurants in lieu of the same placeholders. The evaluators had trouble working with the app as well because some workflows were not added to the prototype. Instead of static, non-interactive screens, we added an example workflow for each aspect of our app such as filtering.

User Testing and Findings

We had three tasks that we had users execute:

1. Creating an account when opening the app
2. View the macronutrients of a menu item from the restaurant Denny's
3. Add a filter for 'Shellfish'

The users had little to no issues with the first task nor the third task, but the second task reinforces the hard to use navigation. Swiping from one view such as 'profile' to 'favourites' should have been intuitive as swiping left or right, but due to the limitations of our prototyping software, we could not implement this.

Since Denny's did not exist in our search view, users had to find it on the map view. Unfortunately, there was also trouble locating it on the map because every map marker had no distinction and users had to manually press each one until they found the restaurant in question. We found out that we had to distinguish certain restaurants in the map view and provide more information to navigate users. We implemented a current position marker to keep the focus on the user's location. In addition to this, we've included notification dots to indicate restaurants

that the app would have recommended and map markers that mirror the colour of favourite meals to indicate that this restaurant has been favorited.

Overall, people were pleased with our prototype, but had comments on certain aspects where the prototype was not responsive or broken.

Recommendations for next iteration of design

Introducing tools to allow for interaction between users could enhance user experience, but we would likely go back to ideation and user research again before exploring that route. Sharing recipes or creating groups might be desirable for fitness oriented or socially oriented individuals. A feedback system to help develop the recommended meals suggestions can also be considered.

We could explore different research methods to get a broader scope of the users of the application. The survey results had a small number of responses that could have been given to a less biased audience to get more accurate results. In our tested user pool, we had users that were more similar to one character profile than the others, so we could have varied the test group as well.

In terms of prototyping, we can use different tools to provide a better experience that isn't limited or feels broken to the user such as having distinctions between left and right swipes. The tasks we had users perform did not incorporate all features of the app, so we would like to revisit user testing with a more comprehensive set of tasks that they can execute.

The meal recommendation UI is fleshed out with custom images and menus, but restaurant recommendation more or less reuses the same menu. Grouping restaurants together differently, categorizing them, and conveying this visually would enhance the experience and usability of the restaurant recommendations.