Screen Sketches and UI Design
Group HV_3
COM S 309

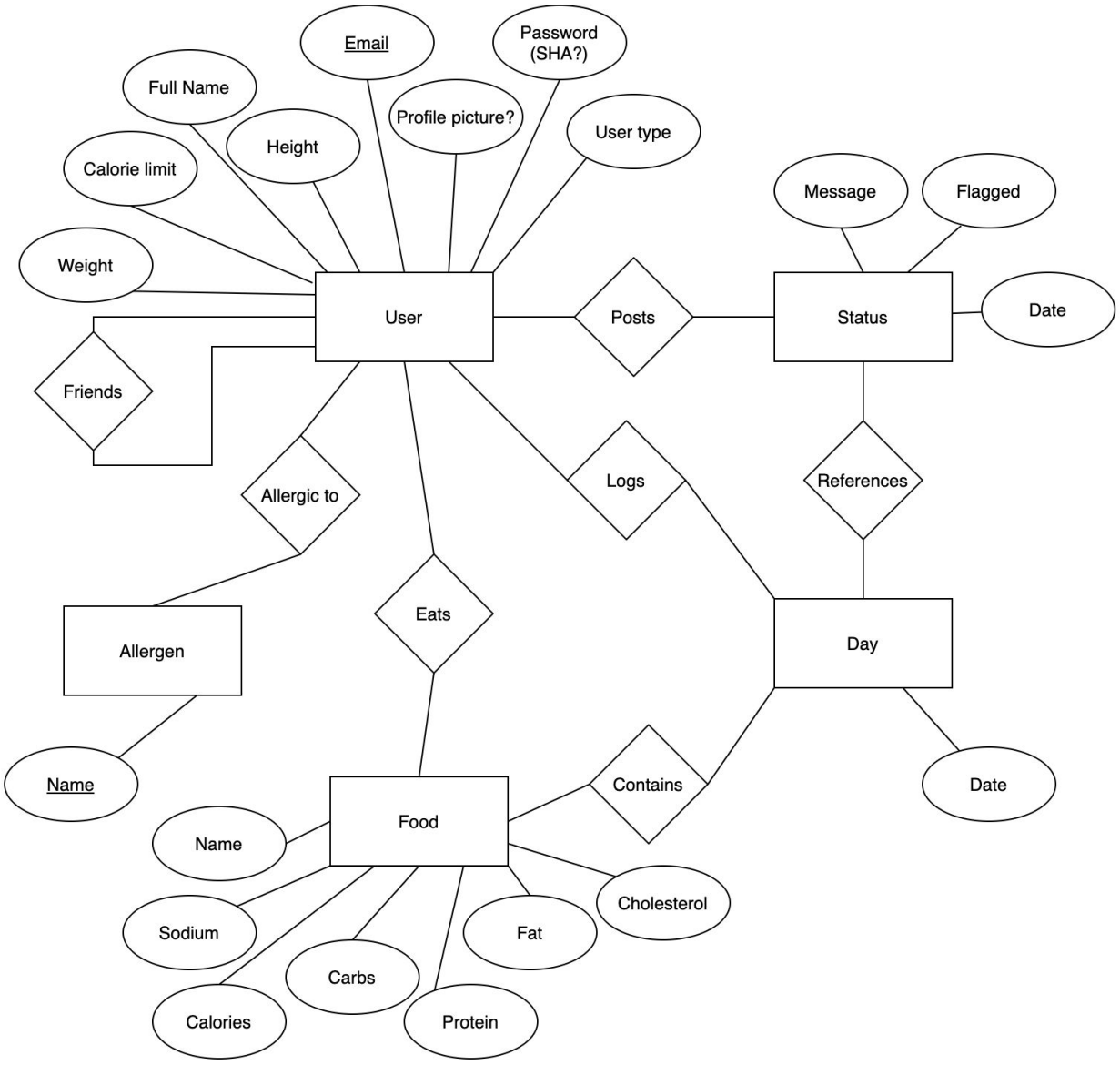
Step 2: Actors

- Generic User
  - Access their own stored nutrition data
  - Add to their daily nutrition table by scanning a nutrition label or manually entering food details
  - Befriend other users to maintain contact and share nutrition goals and updates
  - Post status updates containing text/images on activity feed for friends to see
  - Look at their personal calendar of data and access former days to see their progress over time
  - Change account and app settings
  - Add allergies for the scanner to flag and identify in nutrition labels
- Moderator
  - Moderate user feed
  - Manage user social statuses based on user-generated reports
- Administrator
  - Make announcements to all users
  - Edit core functionality of the app
  - Maintain database structure
  - Test functionality

Step 3: Non-functional Requirements

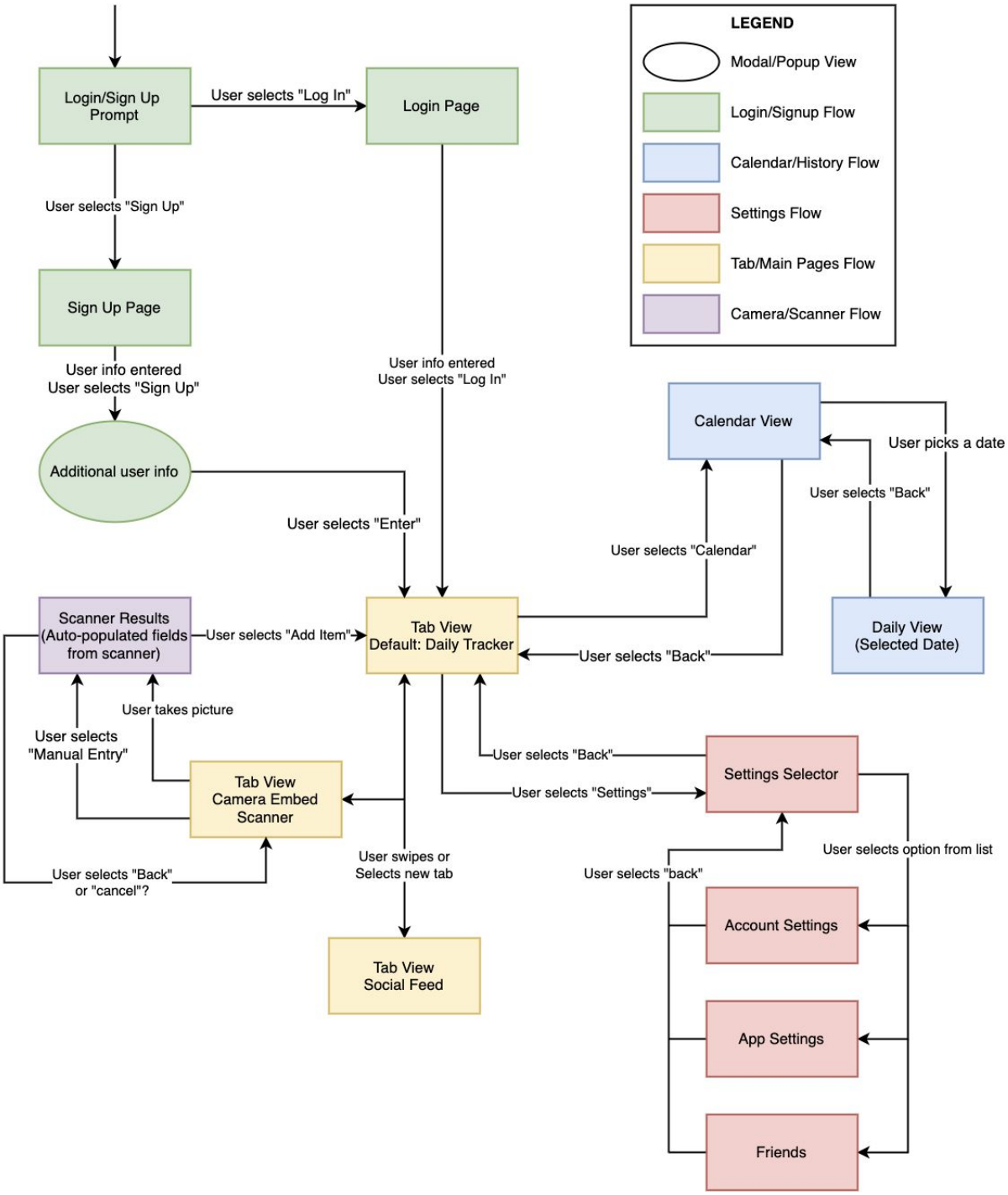
- Performance
  - Performance focused around processing time for images
    - Goal: limit image processing time to 10 seconds or less
    - We are aiming to do image processing server-side which allows for more reliable performance rather than varied across device type
- Usability (UI)
  - Minimize screens user has to interact with.
  - Streamline user flow to import nutrition label (picture) and get retrieved data
- Scalability
  - Handle multiple users submitting images to the server and handle user posts on social feed.
- Maintainability
  - App flow is designed to be modular which allows for editing sections rather than the entire app

Step 4: Database Tables



The database will consist of the tables and rows specified in the above Entity Relationship diagram. The rectangles signify a table, and each connected ellipse signifies a row name. Each diamond signifies a relationship between two entities or tables, and will link those tables using foreign keys. For example, the “Allergic To” table will consist of an email row referencing the User’s email and a food name referencing the name of an Allergen.

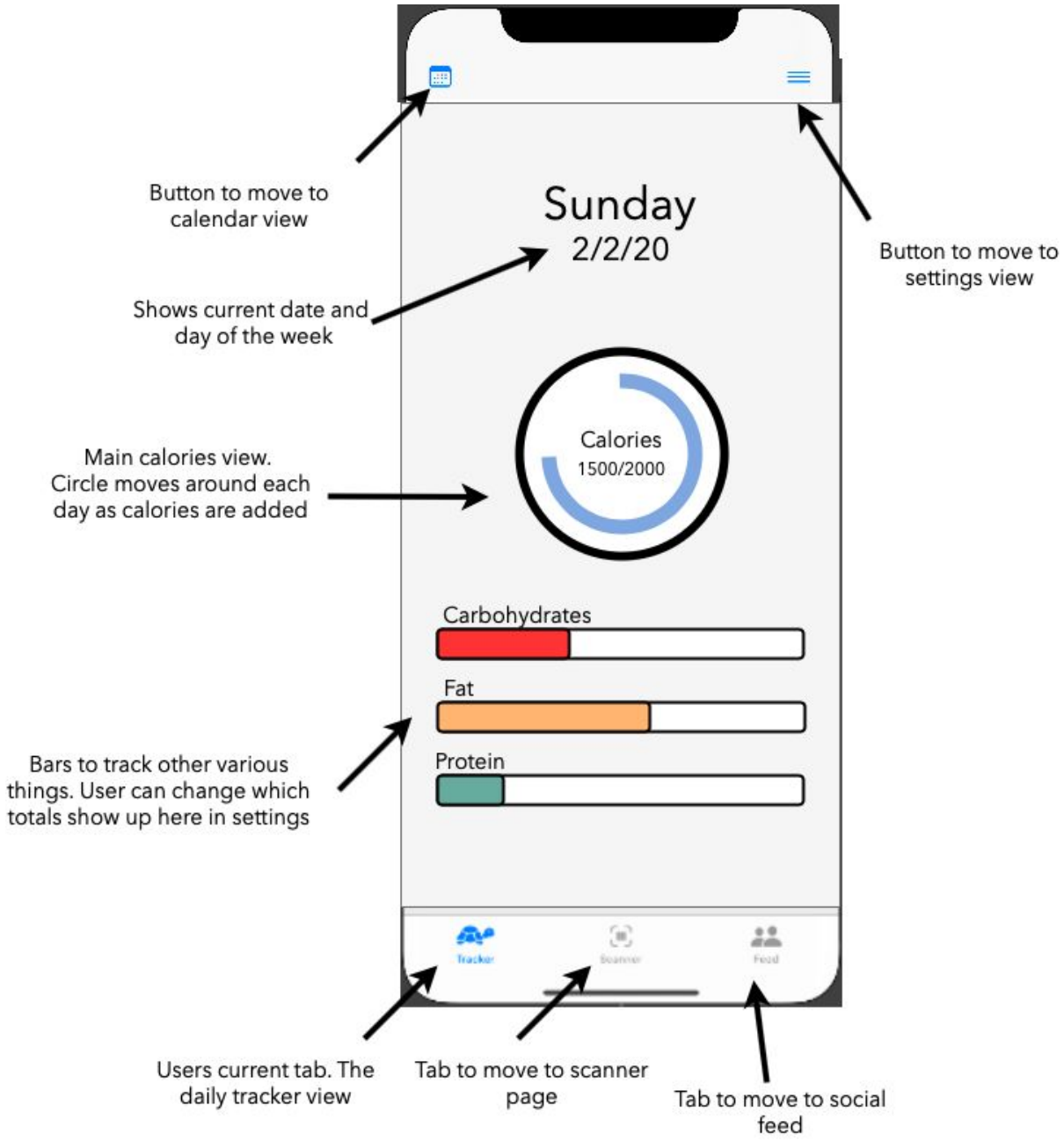
Step 5: Screen Flow



This screen flow is subject to some change, as the settings flow may need to be further fleshed out and there will likely be an added page for a user to create a new status post.

Step 6: Screen Sketches

Main Daily view: (Max Wilson)



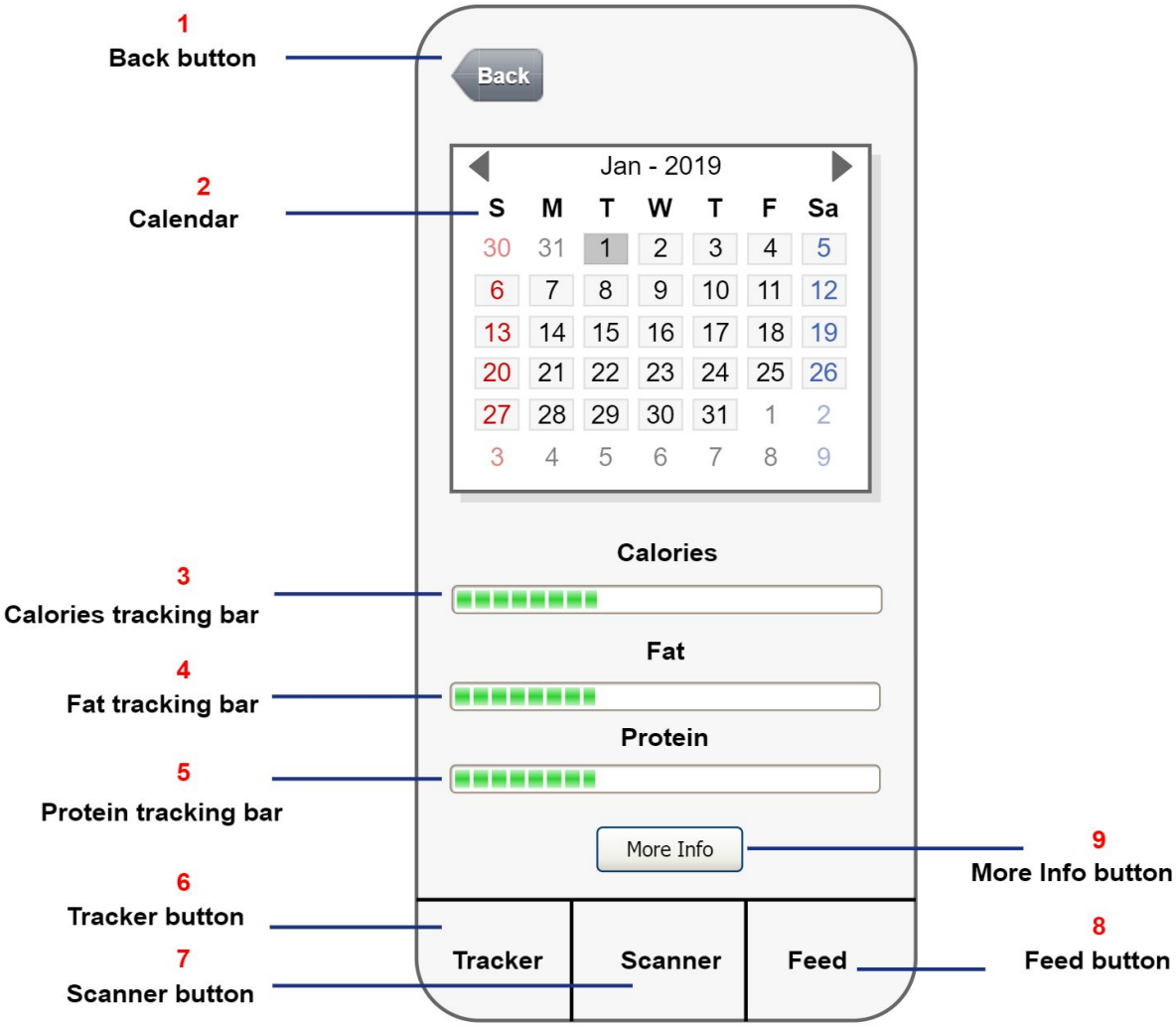
This is the primary page in our app. You can view your totals for the day. The main total is the calories circle in the center. This circle will fill up as

the day progresses and more food is added. The below total bars show the daily totals for carbohydrates, fat and protein. These bars will fill up to their ideal limit throughout the day. The user can switch tabs using the tracker, scanner and feed buttons at the bottom to see other parts of the app. At the top the user can move to the calendar view to see past days and how their progress changes over time. In the top-right, the user can access the menu/settings page to manage friends, change their user info and other various settings.

Sign up additional info page: (Max Wilson)

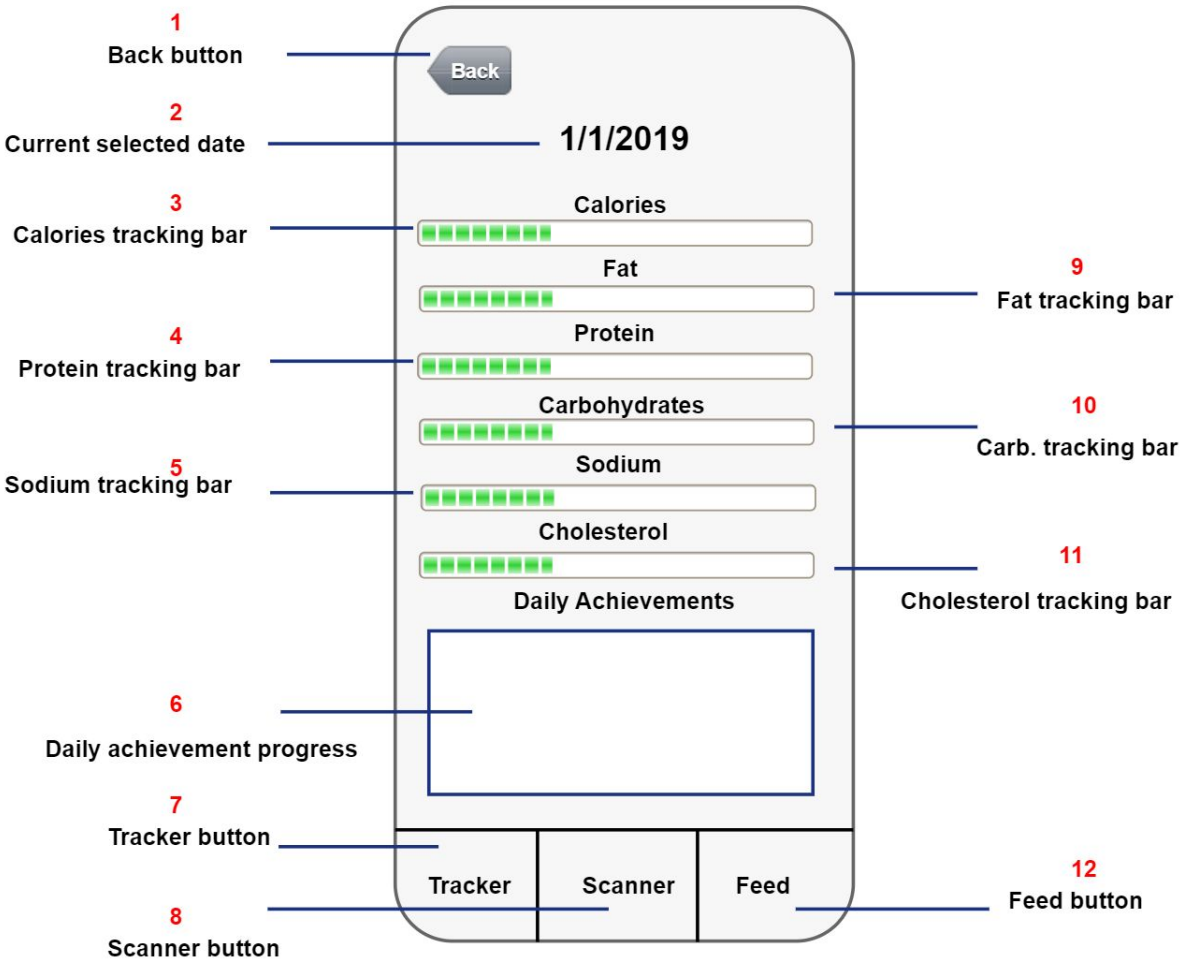
This screen will show up after a user creates their account for the first time. It is a data collection screen that will gather key data needed to flesh out a user's account. There are a couple dropdowns for sex, height, and activity level since they are options with limited input. Further, the allergies field as a button to allow users to add multiple allergies. A user first types in the first allergy. Then when they hit the “+ Add” button the field will be cleared and the allergy will be added to the user’s profile. Then repeat for as many allergies as needed.

Calendar view: (Sam Massey)



The purpose of the calendar view is to let the user select a day to look at in the past with their recorded data. The calendar(2) is used as an interactive way the user can select the desired day. If the user selects a day but does not want to see all of the information from that day, they can get a preview of that day using the information given by the calories, fat, and protein bars (3, 4, 5). If the user wanted to leave the screen, they can either use the back arrow on the top of the page (1), use the tracker, scanner, or feed button on the bottom of the page(6, 7, 8), or use the more info button to see more about that day (9).

Previous Day Trackers: (Sam Massey)



The purpose of this screen is to let the user seen more information about a given day in the past. The day that is being shown is the day that is displayed at the top of the screen (2). Throughout the screen, the user can see all the health information that was recorded for them such as the calories, fat,protein, carbohydrates, sodium, and cholesterol (3,4, 5, 9, 10, 11). The bottom of the users screen will also display their daily achievement trackers to see how successful they were on the day being viewed (6).

Camera View: (Tyler Johnson)

This screen is the main screen for the camera scanning functionality, which enables quick and automatic entry of most food items by scanning and pulling information from FDA nutrition labels. The button on the top bar (1) is to enable manual entry of food items that do not have a nutrition label available, such as apples or fresh vegetables. The focused area of the nutrition label (2) is the area the user focuses on, making sure to get a full sized and clear image of the label, which it then scans. The circular button (3) is used to snap the photo and move to the auto-pulled information. The overall screen (4) is showing the full area of the camera. Markers may be added as an overlay onto this area to indicate how a person should align and size their nutrition label for optimal readability.

Scanner Results: (Tyler Johnson)

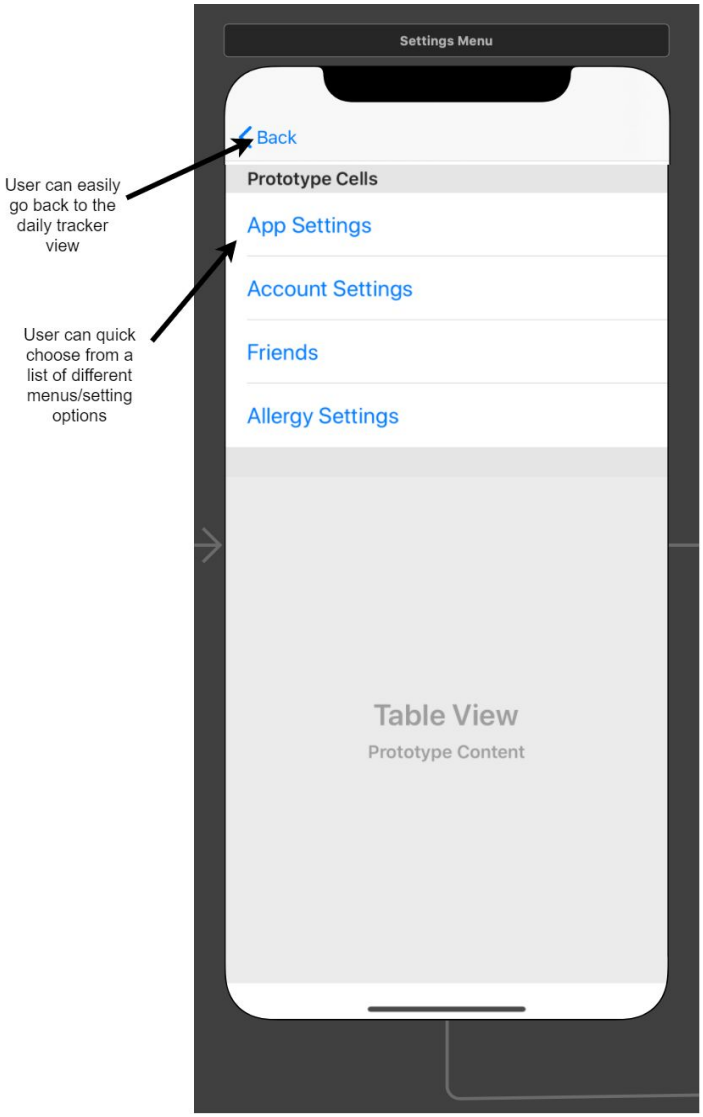
This screen is the results screen, after a photo has been taken or if the user taps on the manual entry button while in the camera page. The food name field (1) is to enter the name of the food, in order to save the data for ease of use, to save the information for later if the food is eaten again. The servings (2,3) is used to enter the number of servings consumed, as changing the number of servings will adjust the other values accordingly, based off how much was eaten. The labels (4) will show what types of metrics need to be entered. The Entry fields (5) will be where the user either enters the numbers from the label scanned, or confirm the values

scanned from the camera are correct. After confirming all values are correct, the accept button (6) will then add the information into the user's count for the day. In addition, if there are potential allergan conflicts, the button will turn to a different color and add a notification that there are potential allergan in the product. If the user does not wish to enter the food at that time, the back button (7) will allow the user to go back to the camera, in the event that the numbers were incorrect and want to retake, or to simply cancel the food entirely.

Social Feed: (Max Van de Wille)

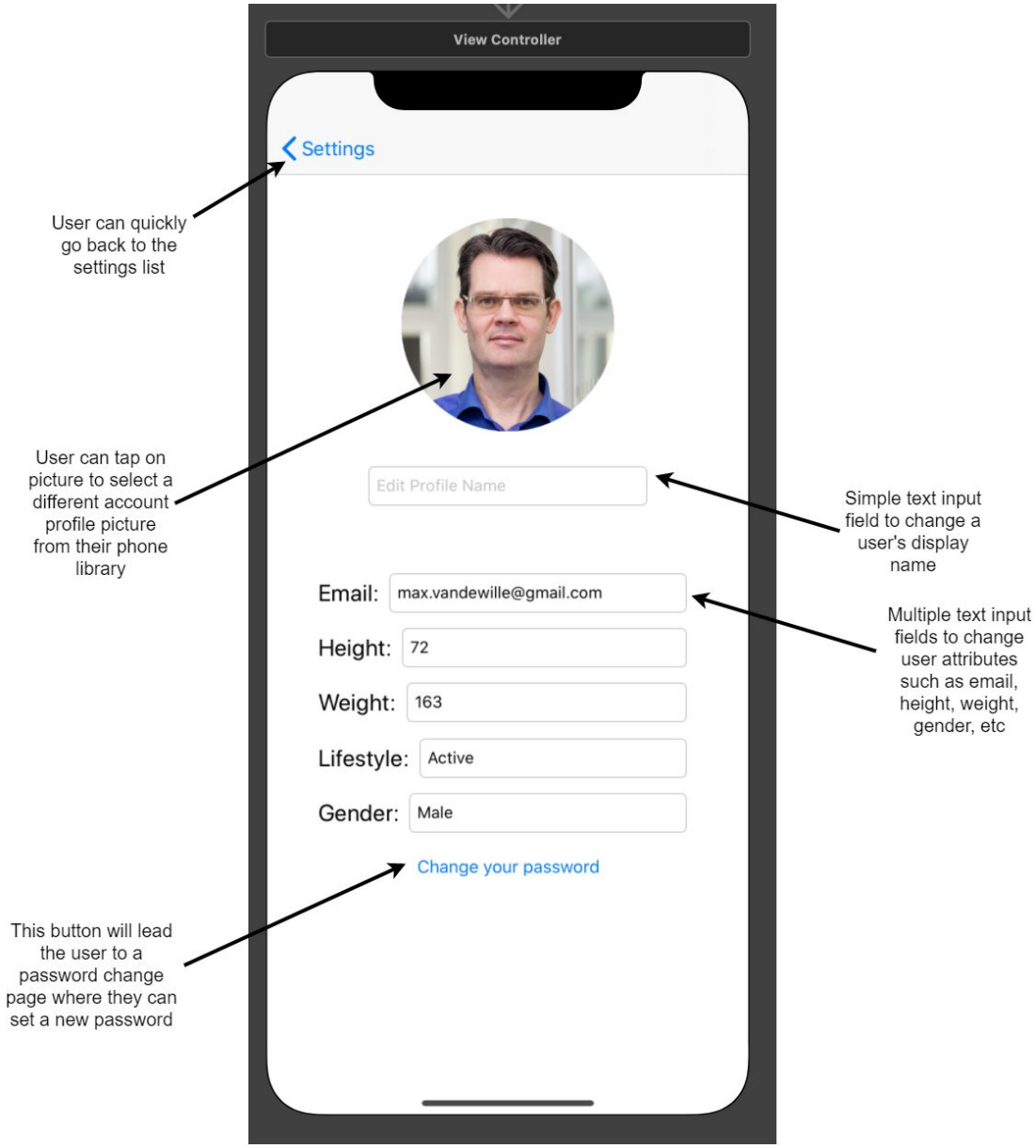
This is the last of the three main pages within the tabbed homepage. In this tab, users will be able to see posts/statuses created by other users that they have added as friends. The social feed allows users to interact with one another by sharing text statuses or referencing their nutrition accomplishments, current or former. This page will be comprised of an infinitely scrollable view of posts by their friends, where each post is given a “card” view similar to Facebook. Users can also “Like” or “Report” these posts based on their reaction to it. Posts will display the posting user’s name and profile picture so they can be easily identified.

Settings Pages: (Max Van de Wille)



This image is the basic list of settings and will appear when the user hits the Menu option in the top right corner of the main Daily Tracker page. This list of settings simply acts as a quick redirection to more in depth settings pages, such as the ones below. This page is intended to be modular by localizing settings into their own section rather than a long list. Each list item acts as a button that shows the next page of settings.

This page is a mockup of the App Settings page, where users can change their preferences regarding the app functionality, layout, and more. This page will consist of toggles, dropdown menus, and more markers to show the user what they can change regarding the app itself.



This page acts as a hub to change each user's own account details. If a user wishes to change their height, weight, display name, email, etc. then they will change it here. This page currently consists mostly of text input fields to allow the user more customization. From here, the user can also go to the password change prompt or upload a new profile picture.