

Paper Prototype

USER STORY

As a healthy food consumer, I want to use my phone to scan the barcode of a food product and see a graphic of all its ingredients. The graphic will rank how healthy the ingredients are for my body, illustrated in categories of red (unhealthy), yellow (neutral), and green (healthy), so that I can make healthy shopping decisions for my family.

PROTOTYPE EXPLANATION

The first time a user opens the *Eat Right!* app on their mobile device, the “Login” screen (screen #1) will be displayed. The app logo and name will appear in the Navigation (or “Action”) Bar, at the top of the screen. A prompt to “Login to save your scanned products” will appear underneath this. An “email” label and corresponding text entry box (with the focus on it by default) will also be displayed, followed by “password” and its corresponding text box. Directly under this, a “Forgot Password” link will be shown, which allows a user to enter the email associated with their account, in order to receive a “Reset Password” link. Hovering over the password text box (or submitting an invalid password) will display the password rules to the user in a floating dialog box. Finally, there is a “Submit” button shown underneath the aforementioned information. Upon clicking, the account information will be verified via an encrypted database server storing user account information. The “Extras” bar, at the bottom of the screen, contains a light/dark mode toggle switch and a message that the “Account will be created if one does not exist”. Upon successful submission of a valid email and password, the user will be taken to the “Main” screen (screen #2), which is the default screen if the user has already logged into the app using this mobile

device. In addition to the logo, app name, and toggle switch (from the Login Screen), the “Menu” button (3 vertical dots) appears on the right end of the app bar. Clicking this button provides an “Account” link and “Accessibility” link to provide options to change the associated email or password on the account or enable high-contrast and other options. In addition, a small, round icon representing a barcode being scanned is seen centered at the bottom of the app on the “Extras” bar. Clicking this button displays a UPC scanner, which closes and adds the product to the Main Screen upon successful UPC scan. A “Back” button is included on the UPC scan screen (and Product Details screen) on the left-end of the Extras Bar. As products have been scanned, each will appear in a vertically-scrollable list on the “Main” Screen, underneath the app bar. Each item will include a thumbnail image, product name, brand name, color-coded rating circle, a “Details” link, and healthy alternatives (by scrolling horizontally to the right). The colored rating system is as follows:

- RED = unhealthy
- YELLOW = neutral
- GREEN = healthy

When the user clicks the “Details” link for any listed item, the “Product Details” screen (screen #3) opens up for the associated item. Underneath the app bar, the thumbnail image will appear, followed by the product name, brand name, colored ranking and numerical score (out of 100). Underneath this, is the vertically scrollable list of health-related product elements. Each element includes a representative icon, element name (like “Protein”), amount and unit of measurement, and color-coded ranking circle. The user may then go back to the “Main” Screen after reviewing the nutritional facts. This allows a user to quickly and intuitively discover health aspects of the products they are interested in, so that they can make smarter, better choices for themselves and their loved ones!

PROTOTYPE CHANGES

The usability tests went quite well, as both users were able to successfully navigate through the paper prototype and perform the tasks requested of them. The most valuable piece of feedback was the desire to have more information on the “Main” screen, which listed all of the products that had been scanned. Because of this, I have decided to change the “Main” screen to include the numerical rating of each product listed to provide a more accurate representation of the health elements of each product, without having to navigate to another screen. I am happy with the mobile app design and am satisfied with the integration of this new feature!