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CS-319

Module Two Milestone: Paper Prototype

This health app, with the working title of NutritionCheck, will scan barcodes of food items and allow for quick and easy reference of healthy and unhealthy ingredients by means of color coding. The app will (hopefully) have a quick boot time, shortly displaying a logo of a barcode made of green beans, with an overall green hue to promote the idea of “healthy”.

It continues onto a screen of the phone’s native barcode scanner, with a small button on the top right-hand side for flash if the user deems it necessary. At the bottom, there is a selection of menus to choose from, reading “History”, “Search”, “How-to”, and “Settings”. The history button has a green arrow in a counterclockwise direction to indicate past, where the user can see past scans. The search button has a magnifying glass that may be able to search for food items that may not necessarily have a barcode, like fresh fruits and vegetables for example. The how-to button is paired with a question mark and will provide a quick tutorial of how to use the app. Finally, the settings button has the generic cog wheel used by many other applications so the user can edit settings, but such settings are yet to be determined. The phone should essentially always be searching for a barcode in this main menu, and once it is found, it shall continue to the next.

In this instance, the app has scanned a bag of trail mix, by the brand Second Nature. It will be topped by a photo of the product if available, followed by the brand name in a separate heading underneath. Underneath that is a clickable “Ingredients List”, that will be expanded. Underneath the list of ingredients, it will show the nutrition facts of the product, written in certain colors to indicate the health factor of each macronutrient. For example. The total fats are 9 grams, 12% of the daily value on a 2,000-calorie diet, which is written in green to indicate it is a healthy amount. Then, seen below that is total sugars written in orange to indicate a neutral health factor, and the macronutrient content of the serving size. Unfortunately, the food item I chose to demonstrate doesn’t have much “unhealthy” traits, but if one is to scan an unhealthy food item, they would see a lot more red. The nutritional facts may seem a bit redundant because the user would have them right in front of them as they had to scan it, but once scanned it will be stored in history which will allow for quick reference if the user wishes.Diagram

Description automatically generated  
  
 The ingredients page will be color coded and easy to look at. With a black header of “Ingredients”, healthy ingredients will be written in green, neutral in orange, and unhealthy in red. Any sub-ingredients will be listed directly below and indented from their parent ingredient with those also being categorized. On the bottom are buttons that allow to go back to nutritional facts, to scan again, or see a “graph”.

The graph is a bar graph which will graphically represent the amount of unhealthy or healthy ingredients in the product. Each graph will be clickable and will provide a submenu of each ingredient in the clicked-on category. At the bottom of the graph menu, is a sub-menu of buttons that will allow for the user to either go back to the last page, to scan a new product, or go back to the nutritional facts of the current item.

Diagram

Description automatically generatedThe last screen developed for the prototype is the history menu, which will be a scrollable menu that will show a small picture of each food item in history, and text of the name of the corresponding product.

After creating the prototype, I had given them to two potential users that had interest, and only asked a couple questions outlined below. They both interviewed in my house on a sunny day with a lot of natural light inside for about 5-10 minutes each. I didn’t give much for instruction as I felt it was straightforward. I had asked them for feedback, and I was pleasantly surprised with what I was given. Both users mentioned that they liked the large scan button to quickly return to the home screen. One did mention how redundant is seemed when I was explaining the prototype, but as they saw the history page, they saw the value of the app. I took notes mostly of their reactions and some key phrases they said in the short time of looking at the prototype.

After interviewing, I’ve got the idea to prioritize the graph over nutritional facts as they will have the facts in front of them more often than not. The graph cand nutritional facts can be swapped so to speak, which will give the consumer a “quick glance” of how unhealthy each food item they scan may be. This will allow for the user to use the app for its purpose quicker, rather than having to navigate a couple of menus to see the at-a-glance information. The color coding seemed to be a fan favorite, and no changes were recommended there in my prototype. I was surprised that they had both given such positive feedback and how “it actually seems like an app that exists, but needs some work”.

Interview Notes

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| **User #1** | **User #2** |
| I like the colors you chose, it says healthy to me | I love the idea of a barcode made out of green beans or asparagus or something |
| The main screen is "pretty legit". It seems like something that exists already. | So if I'm using this in the grocery store, I can already see the nutritional facts so why include that? |
| I can see history of scans too? | The graph is a neat idea, it gives a quick glance of how unhealthy or healthy this trail mix is |
| So the point of the app is to see a visual representation of good/bad ingredients but you're making me kinda search for it | If I were you, I would probably make the graph easier to access because that’s what your project is really about |
| It looks good to me |  |