

Diet Logger Product Design Specifications

I. Problem Statement

Obesity is the fastest growing expense in the United States healthcare system. The condition can cause problems in nearly every organ system in the body. Often individuals are advised to keep a log of their diet as part of a nutritional study or to better appreciate what and how much they are eating. But self-administered logs, particularly written logs, are notoriously inaccurate, cumbersome, and difficult to maintain for a significant period of time. The inadequacy of current diet logging methods can be seen in the amount of dieters who fail to reach their weight loss goals. In this project we will design a system for use by a younger audience, ages 18-25 that will make diet logging fast and easy, as well as focus less on the exact amount of food eaten and more on diet trends.

II. Client Requirements

- a. Develop a diet-logging program, different from what is available, that helps people to see what they are eating and make their own judgments, rather than force them to subscribe to a dieting program.
 - i. Push toward smaller portions,
 - ii. Less processed food and more plants.
- b. Focus on categorized food groups, rather than quantitative amounts. **How are the food categorized? Why in this manner?**
- c. Focus on college-aged young adults—ages 18-25.
- d. Make it easily accessible to the demographic, method such as:
 - i. Smartphone application
 - ii. Web-based program
 - iii. Computer software program

III. Design Requirements

- a. Physical and Operation Characteristics:
 - i. Performance Requirements
 1. Minimum System Requirements
 - a. User must be able to access the internet
 - b. Browser capabilities Internet Explorer 7, Safari 3, Opera 8 and Mozilla Firefox 3
 - c. Minimum screen resolution must be 1024 x 768. Smaller resolutions may work but may not be supported.
 - d. Computer hardware requirements determined by browser
 2. Accessibility
 - a. Compliance with Web Content Accessibility Guidelines (WCAG 2.0) published by the World Wide Web Consortium (W3C)
 - b. Basic computer literacy of user expected
 - ii. Security
 1. Software safe from viruses and hacks.
 2. Registered users information must be kept private.
 3. Privacy policy will need to be written.
 - iii. Accuracy and Reliability

1. Software code must be reviewed to ensure that it is error-free and logs the correct diet
2. Data needs to be current and accurate showing last updated time
3. A disclaimer will be written
- iv. Life in Service
 1. Website is expected to be updated regularly to maintain web standards
 2. Lifetime will remain usable as long as supporting administrators maintain the site
- v. Aesthetics
 1. Device must be visually appealing to the demographic
 2. Market research will be used to determine format of website
- b. Production Characteristics
 - i. Quantity
 1. One website proposed for UW-Madison campus
 2. Potentially expanded to unlimited* number of locations
 3. Theoretically unlimited* number of users
 4. *limits dependent on server hardware
 - ii. Target Production Cost
 1. Web hosting fee
 2. Domain name cost
 3. Development and design cost and time
 4. Estimated total cost based on current economy is \$10,000
 - iii. Testing Procedure
 1. Goal is to test the product on the developer team
 2. IRB approval will be required to test the device on other college students at the university

IV. Miscellaneous

a. Competition

As Americans become heavier and heavier, it is no surprise that the dieting industry continues to become larger and larger. Numerous competitors already exist in the diet-logging market, from online websites to traditional written journals. Many implement a calorie counting method. Often times the user is required to know how many grams of the food they ate which is tedious or confusing. Some are free and others require a paid subscription. Examples of diet logging websites include: www.fitday.com, www.my-calorie-counter.com, www.caloriecount.about.com, and www.calorieking.com. Programs that are not web based that can be used on small electronics such as smartphones also exist.