

## 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. [made new subcategory] 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. Why this group? Is approach extensible to other demographics (age/race/culture/gender)?
- 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. Performances Requirements
    1. Easily accessible platform [What does this mean? HH physical device, WiFi app, pocket minder. Ease must be physical, visual, & cognitive domains.
    2. Logs diet into categories based on common college food groups
    3. Maintains categories in a visually accessible format so the user can easily see what they are eating Hmmm – not sure what you're saying here.
  - ii. Safety
    1. Software safe from viruses and hacks. 'Closed' app? Any other safety issues? Convention dictates that if you have a subcategory there should be at least 2 items.
  - iii. Accuracy and Reliability
    1. Software code must be reviewed to ensure that it is error-free and logs the correct diet

- 2. Program must be tested to ensure that it does not erase data **Tested on whom? How will it be validated?**
- iv. Life in Service
  - 1. Device should be timeless **What does this mean?**
- v. Shelf Life
  - 1. Device does not have a shelf life **OK, how about operational life of device, batteries (if electronic), data storage capacity**
- vi. Operating Environment
  - 1. Device must be readily available to the demographic **What does this mean? Free? iPod sized? Web-accessible?**
- vii. Ergonomics
  - 1. Device must not strain the user **What does this mean?**
- viii. Size and shape **Hmmm – this suggests a web-based app.**
  - 1. N/A
- ix. Weight
  - 1. N/A
- x. Materials
  - 1. N/A
- xi. Aesthetics
  - 1. Device must be visually appealing to the demographic **How will this be assessed and decided?**
- b. Production Characteristics
  - i. Quantity
    - 1. Unknown to date
  - ii. Target Production Cost
    - 1. Unknown to date – **Really? How about the value of your time?**
  - iii. Testing Procedure
    - 1. Eventually, the goal will be to test the product on ourselves as a team. After that, 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](http://www.fitday.com), [www.my-calorie-counter.com](http://www.my-calorie-counter.com), [www.caloriecount.about.com](http://www.caloriecount.about.com), and [www.calorieking.com](http://www.calorieking.com). Programs that are not web based that can be used on small electronics such as smartphones also exist.