

## Quarter Project Milestone 2 – Design

### Project Description

My app will be a virtual food tracker to help users keep track of their foods' freshness/expiration dates. The user will input items in one of four ways: text fields, search USDA/FSIS database, AR word scanning, or barcode scanning. After entering the item, the user can use the earlier methods to also punch in the expiration date. If multiple users share the same storage space at home, then they can synchronize their trackers so that all users can track the freshness of their foods. Once added, users can choose which items to receive notifications for as well as how often/when they want notifications for those selected items.

### Screens and Functionality

The app will consist of two view controllers:

#### 1. Root Table View Controller

- a. The app will open in this controller, depicting the current list of items being stored
- b. The Navigation bar will have two components
  - i. The '+', located on the top-right, will Modal Segue into the Add View Controller.
  - ii. The 'Edit' button will allow the user to rearrange/delete items
- c. If a cell is tapped, the user is Push Segued into the Details/Edit View Controller
- d. The top portion of the view controller will have a 'List ID' as well as a button that will allow users to synchronize their lists if they all punch in the same ID.

#### 2. Add View Controller

- a. This screen will have several fields that the user can write to; some fields are required:
  - i. Name of Product (Required)
  - ii. Expiration Date/Time to Keep (Required)
    1. A suggested time will be pulled from a USDA database after the user inputs the name
  - iii. Owner(s)
  - iv. Purchaser
- b. There will also exist a Notification field that will allow the user to set their settings (e.g. 'Everyday', '1 week before expiration', etc.).
- c. The top will house a navigation bar with 'Save' and 'Cancel' buttons

### **3. Details/Edit View Controller**

- a. Allows the user to look at the name of the product, the purchaser of the product, the owner(s) of the product, and the expiration date of the product.
- b. Cell will exist that, when clicked, will trigger a UIPickerView that will prompt the user to choose from a list of options of when/how often they want to be notified of the selected item's freshness.

#### **Primary Data**

- Product Details
  - User inputted through text fields, database lookups, AR, or barcode scanning.
- Suggested Storage Duration
  - Pulled from USDA/FSIS storage database.

#### **Data Descriptions**

- Product Details
  - Name of Product (Required)
  - Expiration Date/Time to Keep (Required)
    - A suggested time will be pulled from a USDA database after the user inputs a name
  - Owner(s)
  - Purchaser
- Suggested Storage Duration (days)
  - Room temperature duration (int)
    - Minimum/Maximum storage durations
  - Refrigerator duration (int)
    - Minimum/Maximum storage durations
  - Freezer duration (size\_t)
    - Minimum/Maximum storage durations

#### **iOS Technologies:**

- TableView, TableCells, Segues
- Text Fields
- UIPickerView
- Codable

#### **APIs**

- Google's Mobile Vision API (for text recognition)
- Discog's Barcode Scanner API
- USDA/FSIS Food Storage Duration database. There is no actual API for this database, but I found the JSON that houses all of the foods they have on record – so I'll just have to translate that into a database and export it to Firebase.