**PriceIT\_v1.8**

**Mission Statement**

This product is mainly intended to be a grocery shopping application that uses crowd sourced data (information entered by users) to determine the cheapest place to buy a list of groceries.

**Requirements**

**General Features**

* App requires a network connection (WiFi or cellular)
* All text fields should be limited to 255 characters unless otherwise indicated
* All searches should allow for the use of location services or allow the user to enter an address. In the case where both are available the address entered takes precedence

**Locating Products**

* By scanning a UPC or enter a UPC code, the application should find the product in the system if it exists
  + User should have the option to scan with a camera feature or enter the UPC by keyboard.
  + If it exists, the app should allow the user to enter a PricePoint for that product.
  + If it exists, the app should allow the user to find the product at all stores within a mile of the user’s current location and display it with the cheapest store at the top of the list
  + If it exists, the app should allow the user to find other products by the same manufacturer at the three stores nearest the user (within 1 mile).
  + If it exists, the app should allow the user to add the product to their favorites list
  + If it doesn’t exist, the app should allow the user to enter the product’s information
* By entering a product name, the app should display a product
  + If the product is found, it should display to the user
  + If the product is not found, it should display a list of products that most closely matches the search (top 10)

**Favorite List**

* The application should allow the user to access a favorite’s list
  + The user should be able to sort favorites by category, manufacturer, and product name.
  + The user should be able to remove a product from their favorite’s list
    - If a favorite has substitutions then it can still be removed and substitution information is not saved
* The application should allow the user to add two substitution products for a favorite product
  + User’s should be able to remove a substitution from a favorite

**Product**

* A product should have the following data fields
  + UPC (Universal Product Code) – Produce uses a PLC code (Price Lookup Code)
  + Manufacturer
  + Product Name
  + Product Description
  + Product Image
  + Product type (Produce, Beer, etc…)
  + ? Nutritional Information
  + ? Known Allergens Keywords
  + ? Allergy statements
  + ? Quality Keywords (Such as Organic, Low sodium, etc...)

**PricePoint**

* PricePoints represent an entry by a user that consists of a user, a product, a price, a date, a store, and a price status (sale or regular).
* In the case of a sale entry there should be an end date to the sale.
* Users should be able to edit their own price points, which they created within the last 10 days (inclusive).
* User should not be allowed to create a price point for the same product, at the same store, on the same day. Should be prompted to edit entry instead
* Sales shouldn’t be included in calculations and results if the current date is after the sale end date

**Stores**

* Stores should have the following data fields
  + Store name (Required)
  + Store chain/brand
  + Store address (Unique, Required)
* User’s should be able to create stores if they don’t exist
* User’s should be able to edit existing stores

**Manufacturer**

* Manufacturers should have the following data fields
  + Name (Required)
  + Address (Required, Unique)
* User’s should be able to create Manufacturers if they don’t exist
* User’s should be able to or edit existing Manufacturers

**Address**

* Address should have the following data fields
  + GPS coordinates (Required)
  + Address 1 (Required)
  + Address 2 (Optional)
  + State (Required)
  + City (Required)
  + Zip Code (Required)
  + Phone number (Optional)

**User**

* A user should have the following data fields
  + First name (Required)
  + Last name (Required)
  + Email address (Required, Unique)
  + Password (Required)
  + ? Username (Required, Unique)

**Shopping List**

* A user should be able to create shopping lists from items in their favorites list and other products
  + Shopping lists should be able to be saved
  + Shopping lists should have nicknames
  + Maximum 5 shopping lists (savable)
  + One quick list (not savable)
* A user should be able to find the store nearest them with the cheapest total cost for a given shopping list
  + Should check stores within a mile
* A user should be able to find the store nearest them with the most products typically in stock
  + Typically in stock means an entry for that store and that product within the last year
  + Should check stores within a mile
* A user should be able to see a list of the top five stores with the most products in stock and the cheapest total cost for a given shopping list
  + Should return a list sorted by store name ascending
  + Should check stores within a mile
* A user should be able to email a shopping list to an email address