

## **System Design Document**

Team Red (Student Nutrition Mobile App)

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## 16\_1120 Student Nutrition App

### Prompt:

The following are requirements developed for a Student Nutrition Tracking Mobile Application.

### Definitions:

- Add a Meal sequence: the series of screens and prompts required to record a meal in the app
- CSV: Comma separated value document
- Custom Item: a subway sandwich where contents can be altered (ingredients need to be considered individually when calculating nutritional value for a whole sandwich)
- Developer: team or company building the application
- Fixed-Menu: like Panda Express, where the menu doesn't change over time
- Meal Detail Screen: displays input options for user to choose portions of each menu item in meal
- Meal Entry: the sequence of screens and actions needed to enter meals into the app
- Menu Item Nutrient Screen: display nutrient information of food item
- Menu Screen: displays input options for user to enter a single meal
- Nutrient Icon: visual element that displays a numerical value for a given nutrient, the nutrient name, and a visual representation of the percentage of nutrient one has accumulated by eating food that day. (See Appendix B for a mockup representation)
- PDV (Percent Daily Values): the percentage of daily required nutrition that a certain food provides
- Recap Menu: displays list of previous week for user to view meals for a single day from that week
- Single Meal Screen: displays information user has recorded about a single meal
- Standard item: a subway sandwich directly from the menu (all ingredients predetermined and nutritional value is calculated for sandwich)
- User Meals Screen: display meals the user recorded for given date
- User Nutrients screen: display nutrient information of user based on recorded meals
- Variable-Menu: like the dining center, where menu changes over time
- Venue Manager: the owner of a venue or a representative of the owner
- Venue: an eating establishment

### Key:

- A: Basic App Design and functionality
- A-E: Edit an Existing Meal
- A-F: Functionality not covered by another section
- A-I: Information app provides user
- A-IN: Menu Item Nutrient Info
- A-M: Recording a meal  
(M1: Menu Screen, M2: Meal Details Screen, T: Time, D: Date, L: Location, I: Items)
- A-N: Navigation
- A-P: User Profile
- A-R: Recommendations
- A-UN: User Nutrient Info
- A-W: Water Add feature
  
- DB-E: Database editing
- DB-M: Database menu items
- DB-V: Database venues
  
- PB: Phone database

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### Priority Levels:

1: Critical

2: Medium

3: Low

4: Nice to have

Req #	Description	Type	Priority	ID
1	Phone app will be designed for Android OS	A	1	
2	App should include a screen that displays the meals a user has recorded for a single date. This screen defaults to displaying meals for the current date. This screen is known as User Meals Screen.	A	1	
3	App should include a screen to add details about menu items in a meal, and record the meal in the database. Screen should display each menu item selected in the Menu Screen, and each menu item should have the following inputs: <ul style="list-style-type: none"> <li>- Serving size</li> <li>- Ingredient in Custom Recipe (only available once custom recipe feature has been added to app)</li> </ul> This screen is known as the Meal Detail Screen.	A	1	
4	App should have a screen that displays first when the user opens the app. This screen should include navigation options to all other major features in the app, as well as a Nutrient icon, recommendations, and Water Quick Add (a convenient and easy-to-use function that quickly adds water as you drink it throughout the day). This screen is known as the Dashboard.  See Appendix B for mockups detailing what a Nutrient icon is.	A	1	
5	App should include a screen that allows users to record a single meal. This screen should allow user to record date, time, and location of a meal, as well as all menu items. This screen is called the Menu Screen.	A	1	
6	App includes screen that display the list of all setting options in the app. This screen is known as the Settings Menu Screen.	A	2	
7	App should have a screen that displays information about the user's current nutrient levels, as calculated from recorded meals over a period of time This screen is known as the User Nutrients screen.	A	2	
8	App should include a screen that display information about a single meal. Should include a date, time, location, all menu items, and amounts of each item.	A	2	

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	This screen is known as the Single Meal screen.			
9	App includes screen that displays a list of the previous 7 days before the current date. User can select a day to view the Meals Screen for that date. This screen is known as the Recap screen.	A	2	
10	App should have a screen that displays information about a food items nutrient levels, as calculated based on a given portion size. This screen is known as the Menu Item Nutrient Screen.	A	3	
11	App should have a screen that displays settings for the dashboard. This screen is known as the Dashboard Settings screen.	A	4	
12	App should have a screen that displays Custom Recipe feature. User can create, modify, and delete custom recipes made of standard menu items from a single venue (modifications include adding, modifying, or removing individual menu items from the recipe, renaming the recipe) This screen is known as the Custom Recipe Screen.	A	4	
13	App should have a screen that displays a list of Tutorials. This screen is known as the Tutorial Menu. The Tutorial Menu should be accessible from the Settings Menu.	A	4	
14	App should have a screen that displays User Profile information and allows user to change values. User should be able to view the following <ul style="list-style-type: none"> <li>- Custom daily calorie amount</li> </ul> User should be able to add, modify, and delete personal profile information <ul style="list-style-type: none"> <li>- Gender</li> <li>- Age</li> <li>- Height</li> <li>- Weight</li> <li>- Activity Level</li> </ul> This screen is known as User Profile Screen.	A	4	
15	App should have a screen that displays steps for a single tutorial. This screen is known as a Tutorial Page. Each Tutorial Page is accessible from the Tutorial Men.	A	4	
16	User should be able to edit meal data in each day for the past week <ul style="list-style-type: none"> <li>- Add Menu items</li> <li>- Remove Menu Items</li> <li>- Change Quantity of each Menu Item</li> <li>- Change Time</li> <li>- Change Date</li> </ul> (no option to change location; menu items are based on location)	A-E	3	
17	User should be able to delete individual meals for any day in the past week (current date plus 7 days)	A-E	3	

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18	<p>All user inputs other than search bar and custom recipe name input use input component that do not require typing on the part of the user.</p> <p>All user inputs are performed through scroll wheel, combo box, checklist, or similar components.</p> <p>These inputs include the following:</p> <ul style="list-style-type: none"> <li>- Water Feature inputs ( amount, units)</li> <li>- Menu Screen inputs (date, time, location, menu items)</li> <li>- Meal Detail inputs (serving size, ingredient in...)</li> <li>- User profile inputs (height, weight, activity level, gender)</li> </ul>	A-F	1	
19	<p>User should be able to view the following app information</p> <ul style="list-style-type: none"> <li>- Author of the app</li> <li>- Version of the app</li> <li>- When app last updated</li> </ul> <p>This information should be part of the About App screen, accessible from the Settings Menu screen.</p>	A-F	3	
20a	<p>App should have a screen that displays Export Data options. This screen is known as Export Screen.</p>	A	4	
20b	<p>User should be able to export meal data in comma separated value format.</p>	A-F	4	
20c	<p>User should be able to export meal data in the following time ranges</p> <ul style="list-style-type: none"> <li>- A single day</li> <li>- A single week (7 consecutive days)</li> <li>- A single month (30 consecutive days)</li> </ul>	A-F	4	
21	<p>User should be able to export meal data as a PDF document in a readable format. Data should include the following:</p> <ul style="list-style-type: none"> <li>- Day, time, location of each meal</li> <li>- All menu items and portions in each meal</li> </ul>	A-F	4	
22	<p>User should be able to email exported report to an email account</p>	A-F	4	
23	<p>User should be able to view in-app tutorials on how to use each main feature of the app</p>	A-F	4	
24	<p>User should be able to customize which Percent Daily Value nutrient is displayed on the dashboard screen</p>	A-F	4	
25	<p>User inputs that allow typing include search bar and custom recipe name. Clicking into these inputs brings up an on-screen keyboard.</p>	A-F	4	
26	<p>User Meals screen should display a date, corresponding to the day it displays meals for.</p>	A-I	1	
27	<p>User Meals screen should distinguish each meal as a separate, selectable entry. (e.g. List)</p> <p>Each entry should have at a minimum the time and location of the meal.</p>	A-I	1	
28	<p>When user selects a meal from the list of meals in User Meals Screen, user is taken to Single Meal Screen.</p>	A-N	1	

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29	User should be able to view the meals recorded for each day in the 7 days prior to the current date	A-I	2	
30	User should be able to view nutritional information for each menu item	A-IN	1	
31	Menu Item Nutrients Screen should display the source of its data on the bottom of the screen	A-IN	4	
32	User should be able to select from multiple serving options on the Menu Item Nutrient Screen. The amount and PDV of each nutrient are calculated for each serving option (e.g. per 100 g, per serving)	A-IN	4	
33	App should display Percent Daily Values based on standard 2000 calorie diet	A-IN, A-UN	1	
34	System should display amount and Percent Daily Values of each of the following nutrients, in the following standard order, based on the meals recorded in the app: <ul style="list-style-type: none"> <li>- Calories</li> <li>- Total Fat</li> <li>- Saturated Fat</li> <li>- Cholesterol</li> <li>- Sodium</li> <li>- Total Carbohydrates</li> <li>- Dietary Fiber</li> <li>- Sugar</li> <li>- Protein</li> <li>- Potassium</li> </ul>	A-IN, A-UN	1	
35	Nutrients should each be displayed with a name, amount, and units of measurement	A-IN, A-UN	1	
36	User Nutrients Screen should display the source of its data on the bottom of the screen	A-IN, A-UN	2	
37	Percent Daily Values are displayed for each nutrient, graphically, as a horizontal bar that fills up. The bar fills up as percentages increase. (See Appendix B for a mockup representation)	A-IN, A-UN	3	
38	Graphical display of Percent Daily values should be able to show percentages from 0 to 200%, with an indication of 100%. Percentages above 200% are displayed as 200%.	A-IN, A-UN	3	
39	Graphical display of Percent Daily values should change colored based on current percentage range: <ul style="list-style-type: none"> <li>- Green: 0 – 100%</li> <li>- Yellow: 101 – 150%</li> <li>- Red: 151+%</li> </ul>	A-IN, A-UN	4	
40	User should be able to input the date for a meal. Default date for the Menu Screen should be the current date.	A-M1D	1	
41	User should be able to modify which menu items selected for a meal	A-M1I	1	
42	Menu items should be in alphabetical order	A-M1I	1	

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43	Each menu item has a checkbox, which can be checked and unchecked. Checked means the item is to be added to the meal. Unchecked means the item is not to be added to the meal.	A-M1I	1	
44	User should be able to browse all menu items for single venue on a single screen. Menu Screen should list all menu items available from the current location set by the user	A-M1I	1	
45	User can select multiple menu items on the Menu Screen to add to a single meal.	A-M1I	2	
46	Menu Items should be grouped into categories (i.e. Entrée, Dessert, Drinks) and these categories should be visibly labeled (each category is in alphabetical order)  The categories include the following: <ul style="list-style-type: none"> <li>- Soup</li> <li>- Salad</li> <li>- Appetizer</li> <li>- Entrée</li> <li>- Side</li> <li>- Dessert</li> <li>- Drink</li> </ul>	A-M1I	3	
47	User should be able to select menu item to display Menu item Nutrient Screen of that item without selecting that item for addition to the meal (separate mechanism / control / component from checkbox)	A-M1I	3	
48	Menu Screen should include custom recipes as a menu item, to include ingredients contained within recipe	A-M1I	4	
49	Menu items should include an icon to select food items as favorites	A-M1I	4	
50	Menu items should be listed with the user favorites / most frequently selected at the top of the menu (then proceeds to be sorted in alphabetical order)	A-M1I	4	
51	User should be able to browse through menu items from the Menu item Nutrient screen. Menu items are listed in order just as they are on the Menu Screen (favorite -> alphabetical order).	A-M1I	4	
52	User should be able to select a menu item from the Menu Item Nutrient Screen. Selecting a menu item returns the user to the Menu Screen, where the checkbox next to the selected menu item has been updated (checked)	A-M1I	4	
53	Custom recipes should be included in the list of menu items for a venue	A-M1I	4	
54	User should be able to select from all available venues in database.	A-M1L	1	
55	Location options should be listed alphabetically.	A-M1L	1	

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56	User should be able to modify the location of a meal during Meal Entry	A-M1L	3	
57	Menu Screen should display default location as the last used location of user.	A-M1L	4	
58	Menu Screen should include a search bar to search through menu	A-M1S	4	
59	Menu Screen search bar dynamically changes menu options based on input (real time update such as “burg” recommending “burger” or “bana” recommending “banana”).	A-M1S	4	
60	Time input in the Menu Screen allows user to select options in 30 minute increments. Times are shown in Standard Time (AM and PM) according to time zone. User can select any time starting from 12:00 AM to 11:30 PM or convert to 24 hour time (example 11:15PM is 23:15)	A-M1T	1	
61	User should be able to modify the time of a meal during Meal Entry	A-M1T	1	
62	Default time shown is the current system time of the phone, rounded to 30 minute increments. (If between 12:45 PM and 1:15 PM, round to 1:00 PM) (If between 1:15 PM and 1:45 PM, round to 1:30 PM)	A-M1T	1	
63	User should be able to enter a quantity (portion) for each menu item in a meal	A-M2	1	
64	User can return to Add a Meal screen from Meal Detail screen to change selections and inputs. When returning, all previous selected items are still selected, and user’s inputs for date, time, and location are still selected	A-M2	1	
65	Meal Detail Screen should have a shortcut to a Portion Size guide	A-M2	4	
66	App should include a brief Portion Size guide to help users determine correct portions of menu items (common conversions between measurements and common servings)	A-M2	4	
67	User should be able to navigate to Meal Details screen from Menu Screen	A-N	1	
68	Either the home button or a back button to return to the previous screen is visible on every screen in the app as part of the navigation bar.	A-N	1	
69	App contains a navigation bar that remains on-screen at all times, even if the rest of the screen can be scrolled through. The contents of the navigation bar may vary depending on which screen the app is on.  The two Navigation bar standards are Navigation Bar 1 and Navigation Bar 2, which are listed in requirements below.	A-N	1	
70	App should return user to Dashboard after completing Meal Detail screen.	A-N	1	



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71	Navigation Bar 1 contains the following options: <ul style="list-style-type: none"> <li>- Home (to dashboard)</li> <li>- User Nutrients (to User Nutrients Screen)</li> <li>- Add a Meal (plus sign) (to Menu Screen)</li> <li>- Today's Meals (to Meals Screen)</li> <li>- Recap (to Recap Menu)</li> </ul>	A-N	1	
72	Navigation Bar 2 contains the following options: <ul style="list-style-type: none"> <li>- Back (Home if screen to return to was the dashboard): returns to previous screen user was on</li> <li>- Next (Done if the screen is the last in the Add a Meal sequence): returns to next screen in sequence</li> <li>- Add Item (Menu Item Nutrients screen only)</li> <li>- Edit Meal (Meal Screen only)</li> </ul>	A-N	1	
73	The following screens have Navigation Bar 1 <ul style="list-style-type: none"> <li>- Dashboard</li> <li>- User Nutrient Levels</li> <li>- Meals Screen (Today)</li> <li>- View Recap Menu</li> </ul>	A-N	1	
74	The following screens have Navigation Bar 2 <ul style="list-style-type: none"> <li>- Add Menu items</li> <li>- View Menu Item Nutrients</li> <li>- Add Meal Details</li> <li>- Settings Menu (and any screen within it)</li> <li>- Meals Screen (Recap)</li> </ul>	A-N	1	
75	Navigation bar 1 visually displays which screen is currently being displayed (e.g. if Dashboard, then Home is bolded)	A-N	4	
76	Each recommendation should be displayed as a truncated statement to reduce screen space it takes up. Message can be expanded to display the full statement.	A-R	2	
77	Recommendations are based on the lowest nutrient percentage of Percent Daily Values, as measured over the previous 7 days before the current date. (The first recommendation is based on the lowest nutrient level, the second recommendation is based on the second lowest nutrient level, etc.) Lowest nutrient percentages are calculated once a day and hold for the entire day.	A-R	2	
78	App includes recommendations to improve user diet. Recommendations are displayed on the Dashboard. The default number of recommendations is three.	A-R	2	
79	Each recommendation includes the following: <ul style="list-style-type: none"> <li>- name of the nutrient (e.g. "Low in iron")</li> <li>- message of how to increase the level of that nutrient (e.g. "Try eating some fish or meat. If you are vegetarian, trying eating more lentils, beans, and spinach.")</li> <li>- Source of information</li> </ul>	A-R	3	

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80	User should be able to customize whether the Recommendations section shows up on the dashboard	A-R	4	
81	User should be able to customize the number of recommendations visible on the dashboard	A-R	4	
82	User will be able to view user nutrient levels for the current date	A-UN	2	
83	User will be able to view nutrient levels for the current week (today plus the last 7 days)	A-UN	3	
84a	User should have the option to use a custom calorie diet to determine Percent Daily Values	A-UN	4	
84b	Default version of app uses a 2000 calorie standard diet to determine Percent Daily Values	A-UN	1	
85	User will be able to view nutrient levels for the current month (today plus 30 previous days)	A-UN	4	
86a	User should be able to select certain nutrients as favorites	A-UN	4	
86b	User Nutrients Screen should display favorited nutrients first, in standard order, followed by un-favorited nutrients, in standard order.	A-UN	4	
87	User should be able to customize whether the Water Add section shows up on the dashboard	A-W	4	
88	User can access Water Quick Add feature from the Dashboard	A-W	4	
89	App includes Water Quick Add feature, which allows user to enter amount of water consumed without needing to go through entire Add a Meal sequence. Water quick add section includes input for amount of liquid, a choice of portion units, and a button to add water.  Water Quick add feature adds water as a separate meal, with the current date and current time, without a location. This meal is then displayed among the other meals on the Meals Screen.	A-W	4	
90	The following portion unit choices for the water quick-add: - Fluid ounces - cups - millileters	A-W	4	
91	Each table in database will have an attribute (primary key) that uniquely identifies that attribute so that there aren't two of the same attributes	DB	1	
92	Developer will have ability to add, remove, and modify venues in the database	DB-E	2	
93	Developer will have the ability to add, remove, and modify menu items in the database having been given a CSV document in the proper format (see Appendix A)	DB-E	2	
94	Developer will create a standard format CSV document for submitting menu items and this document will be available for all interested venue managers	DB-E	2	
95	Venue manager will be able to add, modify, and remove items from a single venue by submitting a CSV document of all current items	DB-E	3	

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96	Developer should be able to add, modify, or remove tables stored in the database (if developer want to add 6 more nutrient to keep track of, it should be possible to do that)	DB-E	3	
97	Venues stored in database should contain the following information <ul style="list-style-type: none"> <li>- Venue ID</li> <li>- Venue name</li> <li>- Menu items</li> </ul>	DB-I	1	
98	Each nutritional value will be stored in its own standard unit of measure <ul style="list-style-type: none"> <li>- Calories (kilocalories)</li> <li>- Total Fat (grams)</li> <li>- Saturated Fat (grams)</li> <li>- Cholesterol (milligrams)</li> <li>- Sodium (milligrams)</li> <li>- Total Carbohydrates (grams)</li> <li>- Dietary Fiber (grams)</li> <li>- Sugar (grams)</li> <li>- Protein (grams)</li> <li>- Potassium (milligrams)</li> <li>- Vitamin A (International Units IU)</li> <li>- Vitamin C (milligrams)</li> <li>- Calcium (milligrams)</li> <li>- Vitamin D (International Units IU)</li> <li>- Vitamin B12 (micrograms)</li> <li>- Vitamin B6 (milligrams)</li> <li>- Iron (milligrams)</li> <li>- Magnesium (milligrams)</li> </ul> <p>(14 for protein means 14 g. 14 for sodium means 14 mg.)</p>	DB-I	1	
99	Recommended Daily Values for each of the following nutrients, based on a 2000 calorie diet, for adults and children 4 or more years of age: <ul style="list-style-type: none"> <li>- Calories 2000 kCal</li> <li>- Total Fat 65 g</li> <li>- Saturated Fat 20 g</li> <li>- Cholesterol 300 mg</li> <li>- Sodium 2400 mg</li> <li>- Total Carbohydrates 300 g</li> <li>- Dietary Fiber 25 g</li> <li>- Sugar 25 g</li> <li>- Protein 50 g</li> <li>- Potassium 3500 mg</li> <li>- Vitamin A 5000 IU</li> <li>- Vitamin C 60 mg</li> <li>- Calcium 1000 mg</li> <li>- Vitamin D 400 IU</li> <li>- Vitamin B12 6 micrograms</li> <li>- Vitamin B6 2 mg</li> </ul>	DB-I	1	

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	<ul style="list-style-type: none"> <li>- Iron 18 mg</li> <li>- Magnesium 400 mg</li> </ul> <p>Source: "Guidance for Industry: A Food Labeling Guide." US FDA. Accessed Oct 15, 2016.</p>			
100a	<p>Data types for the table attributes will be the following:</p> <ul style="list-style-type: none"> <li>- Nutritional Values: string</li> <li>- Meal Information: string</li> </ul>	DB-I	1	
100b	Database should contain all standard recommendations to be used in the Recommendation feature of the app.	DB-I	1	
100c	<p>Database should store the following information for each Recommendation:</p> <ul style="list-style-type: none"> <li>- ID</li> <li>- Title: (e.g. "Low in Iron")</li> <li>- Message: (e.g. "Try eating more leafy greens or red meat")</li> <li>- Source: (e.g. "USDA")</li> <li>- Nutrient: (e.g. "Protein")</li> </ul>	DB-I	1	
101	<p>Database should contain the following nutritional information for each menu item (per serving):</p> <ul style="list-style-type: none"> <li>- Calories</li> <li>- Total Fat</li> <li>- Saturated Fat</li> <li>- Cholesterol</li> <li>- Sodium</li> <li>- Total Carbohydrates</li> <li>- Dietary Fiber</li> <li>- Sugar</li> <li>- Protein</li> <li>- Potassium</li> </ul>	DB-M	1	
102	<p>Database should contain the following information for each (fixed-menu, standard-item) menu item:</p> <ul style="list-style-type: none"> <li>- Item Name</li> <li>- Serving size (if available)</li> <li>- Item Category</li> <li>- Nutritional Information</li> </ul>	DB-M	1	
103	<p>Database Item Categories may include the following options:</p> <ul style="list-style-type: none"> <li>- Soup</li> <li>- Salad</li> <li>- Appetizer</li> <li>- Entrée</li> <li>- Side</li> <li>- Dessert</li> <li>- Drink</li> </ul>	DB-M	1	
104	All portion sizes should be measured in Imperial Units (i.e. ounces)	DB-M	1	
105	Database should contain the following nutritional information for each menu item (per serving):	DB-M	4	

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	<ul style="list-style-type: none"> <li>- Vitamin A</li> <li>- Vitamin C</li> <li>- Calcium</li> <li>- Vitamin D</li> <li>- Vitamin B12</li> <li>- Vitamin B6</li> <li>- Iron</li> <li>- Magnesium</li> </ul>			
106	Database should contain all venues on NDSU campus with: <ul style="list-style-type: none"> <li>- Fixed-menu</li> <li>- Standard-item</li> </ul>	DB-V	1	
107	Database should contain all venues within 0.5 miles of edge of campus with: <ul style="list-style-type: none"> <li>- Fixed-Menu</li> <li>- Standard-Item</li> </ul>	DB-V	4	
108	Database should contain all venues within 0.5 miles of edge of campus with: <ul style="list-style-type: none"> <li>- Fixed-Menu</li> <li>- Custom-Item</li> </ul>	DB-V	4	
109	Database should contain all venues on NDSU campus with: <ul style="list-style-type: none"> <li>- Fixed-menu</li> <li>- Custom-item</li> </ul>	DB-V	4	
110	Database should contain all venues on NDSU campus with: <ul style="list-style-type: none"> <li>- Variable-menu</li> <li>- Standard-item</li> </ul>	DB-V	4	
111	Database should contain all venues on NDSU campus with: <ul style="list-style-type: none"> <li>- Variable-menu</li> <li>- Custom-item</li> </ul>	DB-V	4	
112	Phone should store the following Meal information for a single meal: <ul style="list-style-type: none"> <li>- Date of meal</li> <li>- Time of meal</li> <li>- Venue</li> <li>- Menu Items</li> <li>- Quantity of each menu item</li> </ul>	PB	1	
113	App should store recorded meal information for later use.	PB	1	
114	Phone should store all meals the user has recorded for the past year (current day plus 365 previous days)	PB	2	
115	Phone should be able to store the following attributes as a user: <ul style="list-style-type: none"> <li>- Gender (male, female)</li> <li>- Age</li> <li>- Height (inches)</li> <li>- Weight (pounds)</li> <li>- Activity Level (Not active, Light active, Active)</li> <li>- Custom Recipes (if any)</li> <li>- Custom daily calorie level</li> </ul>	PB	4	

## Appendix A: CSV Format for Menu Items Submittal

Step 1: Document filename should include current date and name of venue

Step 2: Each Menu Item should be on its own line in the document

Step 3: Each line must include all items below, in the order listed below, with no spaces between elements.

1. Item Name,
2. Category, (See Note 1)
3. Serving Size,
4. Serving Size Unit, (See Note 2)
5. Calories, (see Note 3)
6. Total Fat,
7. Saturated Fat,
8. Cholesterol,
9. Sodium,
10. Potassium,
11. Total Carbohydrates,
12. Dietary Fiber,
13. Sugar,
14. Protein

Examples:

Kung Pao Chicken,Entree,5.8,ounce,290,19,3,50,970,null,14,2,6,16

Apple Pie,Dessert,1,piece,277,13,4.4,0,311,76,40,1.9,2.2

Note 1: The following are category options for Menu Items. Items without a category are given the value of null for that element.

- Soup
- Salad
- Appetizer
- Entrée
- Side
- Dessert
- Drink
- Null

Note 2: The following are serving size unit options for Menu Items. Items that use a serving size unit different from the list below should be given the value of null.

- Ounce
- Cup
- Gram
- Piece
- Null

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Note 3: Nutrients are recorded in the following units. Use null to indicate that a specific nutrient value is unknown. Use 0 to indicate that a specific nutrient value is zero. Decimals are allowed for every numerical value. Do not include units for a nutrient element.

- Calories (kilocalories)
- Total Fat (grams)
- Saturated Fat (grams)
- Cholesterol (milligrams)
- Sodium (milligrams)
- Total Carbohydrates (grams)
- Dietary Fiber (grams)
- Sugar (grams)
- Protein (grams)
- Potassium (milligrams)

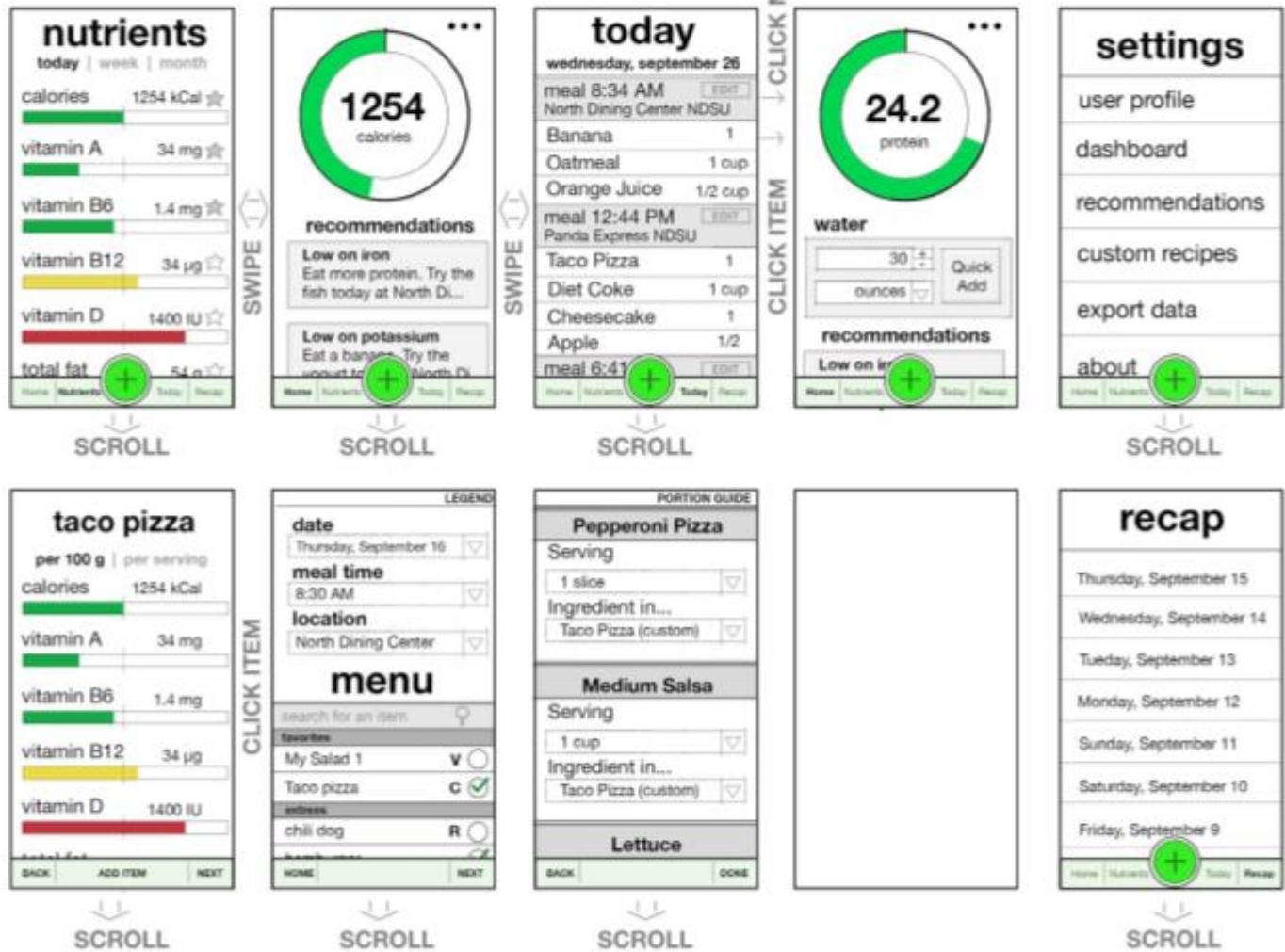
Example: Value of 14 for protein means 14 g. Value of 14 for sodium means 14 mg.

### **Appendix B: Mockups of Application**

#### Option 1

## 16\_1120 Student Nutrition App

### 16\_1001 SNT App Mockup RQN





## 16\_1120 Student Nutrition App

### 16\_1024 SNT App Mockup Option 2 RQN



### Mockup Option 2