



Barcode Grocery List (*BCGL*) User Manual
Version 2.0 (Final Draft)
April 21st, 2021

Version	Primary Author(s)	Description of Version	Date Completed
Rough Draft: Version 1.0	Bailey Martin, Andrew Moore, Kyle Hieb	<i>BCGLUserManual.docx</i> provides detailed design information on the use of RAID Inc.'s completed Barcode Grocery List (BCGL) application.	4/12/21
Final Draft: Version 2.0	Bailey Martin, Andrew Moore, Kyle Hieb	<i>BCGLUserManual.docx</i> provides detailed design information on the use of RAID Inc.'s completed Barcode Grocery List (BCGL) application.	4/21/21

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Introduction

General Information

Barcode Grocery List (BCGL) is a mobile application designed for Android and iOS devices. It allows users to conveniently scan barcodes or manually search for a product by its SKU number. Additionally, the BCGL software allows users to access additional product information. After selecting a product by name or SKU number, they can then add it to their shopping list. This app allows users to create multiple shopping lists, and to add or remove items from their lists in an intuitive manner.

BCGL serves as a paperless solution to traditional grocery lists and saves the user time due to its unique item barcode scanning ability. As one runs out of a product, they can conveniently scan the container's SKU number before disposing of it. This eliminates the need to spend time making a grocery list every week, as saved lists can be referenced. Additionally, it eliminates the problem of losing a paper shopping list, as the list is contained on the user's smartphone and is also associated with their BCGL account. This app is unique, as it is intended for consumers of all ages and demographics. Anyone who purchases grocery products, and who has access to a mobile device, can utilize the functionality in the BCGL mobile app.

Product Overview

BCGL has four main functions:

- Create and delete multiple shopping lists.
- Add and remove items from each list.
- Scan barcodes to search for products stored in the app database. You can then add an item to a shopping list immediately after scanning its barcode.
- View additional product information (ex: price, SKU number, etc.) by selecting an item from the shopping list.

Acronyms and Abbreviations

API: Advanced Platform Integration

BCGL: Barcode Grocery List

SKU: Stock Keeping Number (SKU = the number on the product's barcode)

UI: User Interface

Copyright Information:

This project is not currently protected by copyright laws. All SKU items reside under the fair use section of copyright legislation. This app was designed using the open-source Xamarin Forms toolkit, made available by Microsoft. The RAID Inc. logo and navigation bar icons are property of the RAID Inc. Development Team. If you are interested in distributing this application, please contact raidincsoftware@gmail.com for more information.

Disclaimer:

All product prices are as of April 2021 and are subject to change. The information found within the BCGL app is not final. Additionally, the price and SKU records are not legally binding, and may not be an exact match of what is found within a store. The retailer has the ultimate authority on setting their prices, and RAID Inc. cannot be held responsible for any discrepancies found between the information contained in BCGL and the information provided by the retailer.

General Instructions

System Requirements

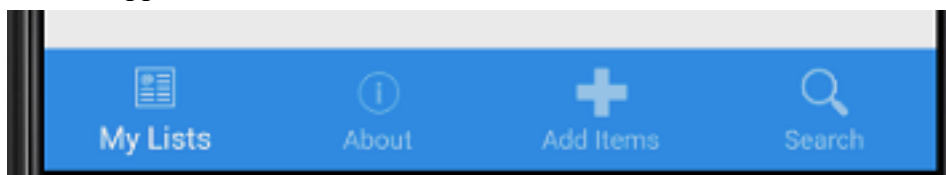
The following specifications are required to download, install, and use the BCGL mobile app:

- A working mobile device with iOS 14.4 or higher installed (For iOS users)
- OR
- A working mobile device with Android Oreo 8.1 or higher installed (For Android users)
 - Device camera access enabled (accept the permissions via the pop-up message)
 - Note that the app is operational without a camera, but camera functionality provides a better overall user experience.
 - A stable Internet connection
 - Wi-Fi or Cellular Data is acceptable

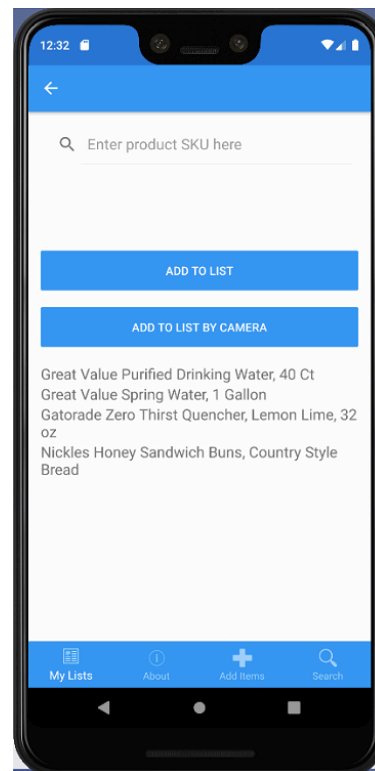
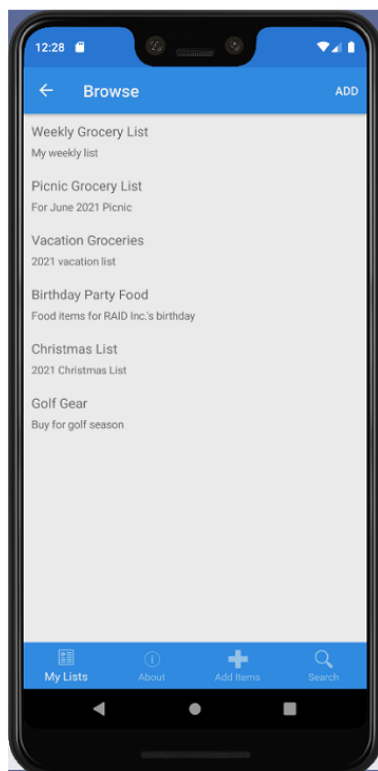
Functionality

RAID Inc.'s BCGL is designed to simplify the consumer shopping experience. It serves as a paperless solution to traditional shopping lists, and is convenient, as it is accessible from the end user's smartphone.

BCGL contains one primary user interface controller. The UI controller is the navigation bar at the bottom of the screen, shown below. This navigation bar allows the user to access all the functions that the app has to offer.



It shows a list view of all created shopping lists. Additionally, after selecting a shopping list, another list view displays all the products currently on that specific shopping list.

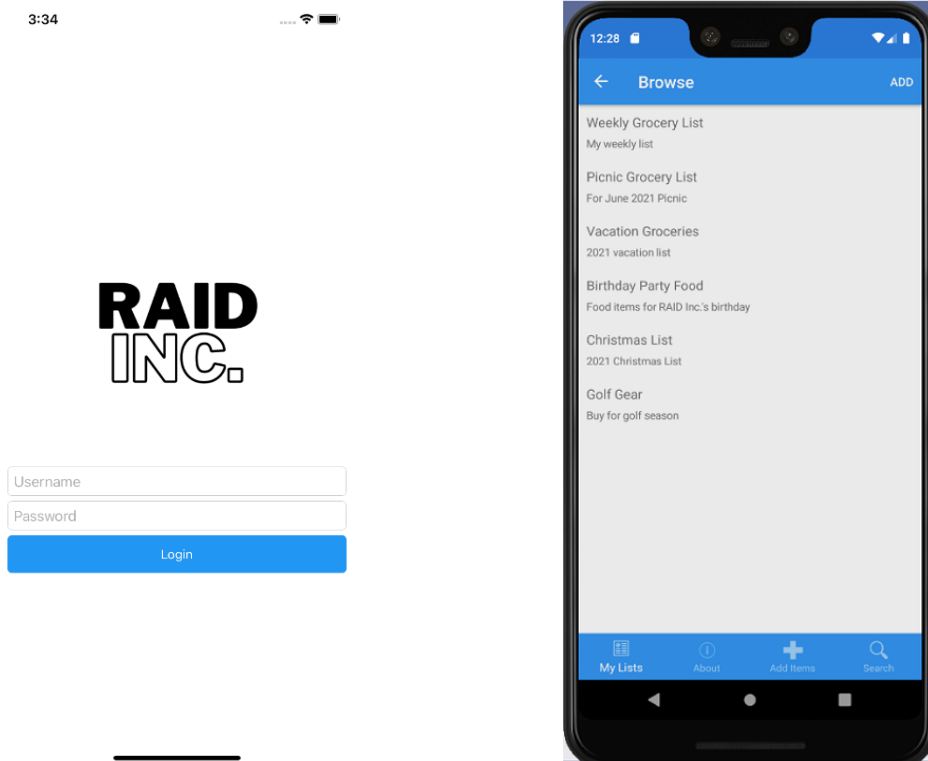


The user can access their shopping lists by selecting the “My Lists” button on the navigation bar. Users can also use this bar to scan product barcodes, search for items to add to a shopping list, learn more about RAID Inc., and add product information to the existing database. There will be more information about these items in the “Specific Instructions” section of this manual.

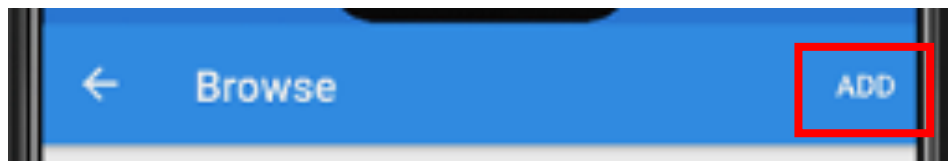
Getting Started

Description

Upon downloading and installing the BCGL mobile app, the user is presented with the RAID Inc. login screen, as seen below. Here, a user will enter their RAID Inc. account credentials, which consist of an email address and a password. Upon successful login, the user will be presented with the “My Lists” page, which contains each individual user’s saved shopping lists.

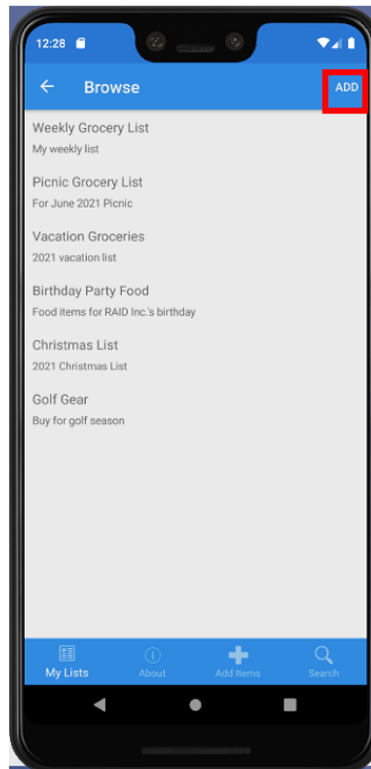


The “ADD” button creates a new shopping list. BCGL is designed to support the creation of multiple shopping lists. After a shopping list has been created, the user can press on the shopping list name to add, remove, and view items on the list.

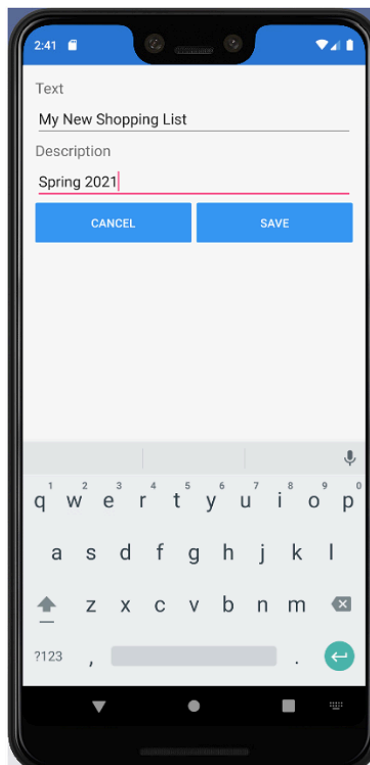


First Operations

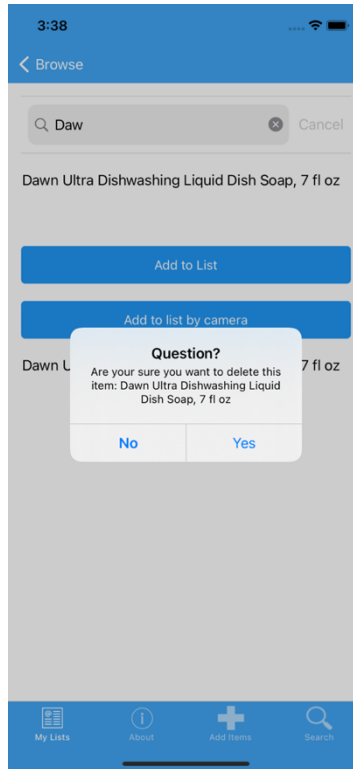
After launching the app and signing in with your RAID Inc. credentials, the first thing to do is create a new shopping list. To begin, click the “ADD” button in the top right corner the “My Lists” page of the app.



This button will launch the screen that allows a user to create a new list. It is required that a list name and description be provided.



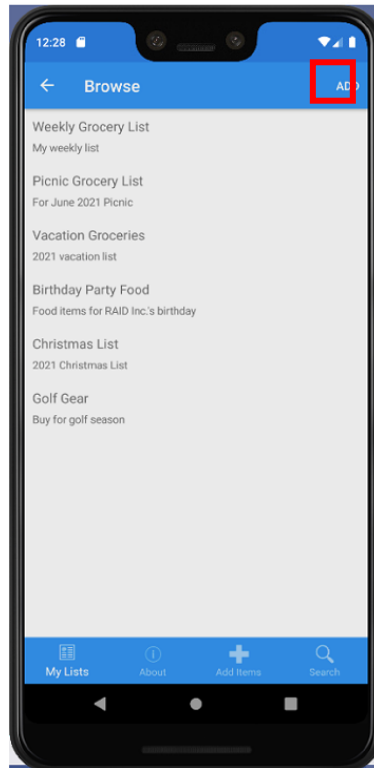
Next, click on the name of your newly created list to begin adding products to the shopping list. This can be done manually via the provided search functionality, or via a mobile device's camera, which automatically scans a product's barcode and adds it to the list. While shopping, one may want to remove items from the list as they find products in the store. This can be done by swiping right on the item name.



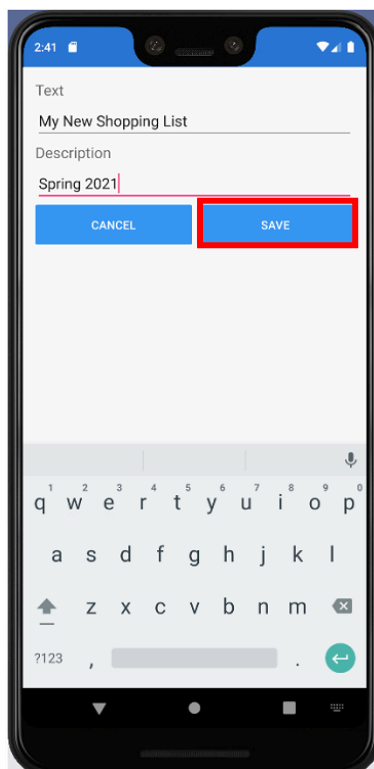
Specific Instructions

Create and delete multiple shopping lists:

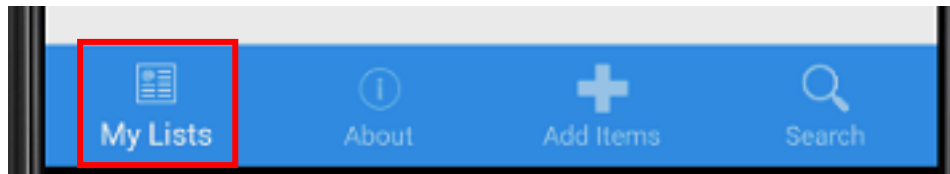
Shopping lists can be created and deleted in the “My Lists” tab of the navigation bar. In the top right corner, select the “ADD” button, as it allows a user to create a new shopping list.



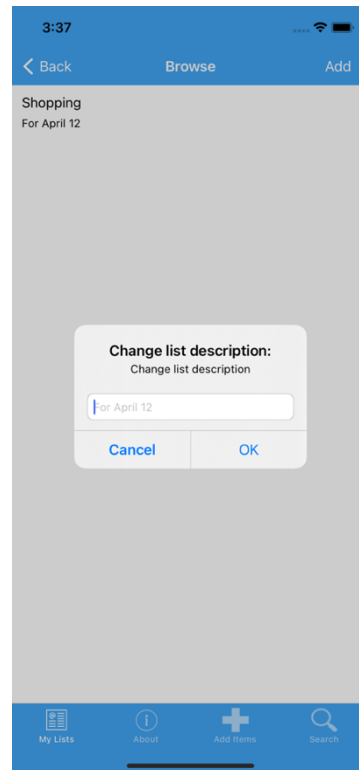
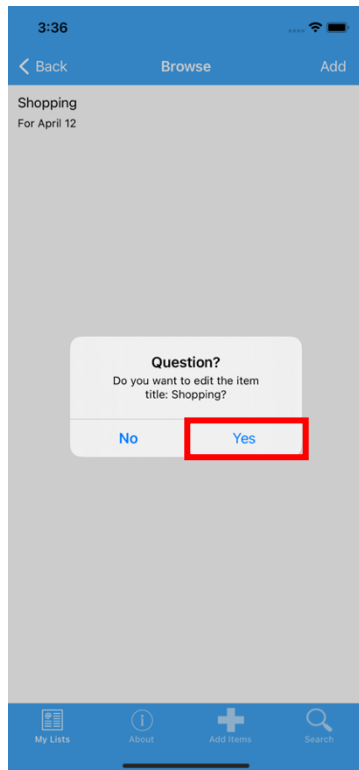
When this is clicked, the user is taken to a page that prompts for them to enter a name and description of their list. When they click “Save”, the new shopping list will be added to the list of lists.



This list is now accessible via the bottom navigation bar by clicking on the “My Lists” tab, shown below.



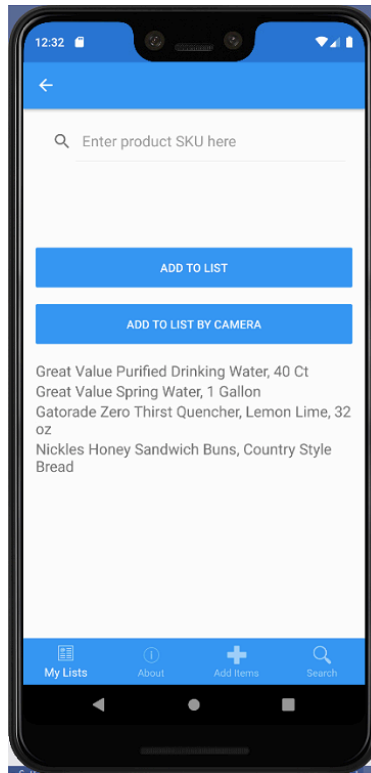
To edit the name and description of an existing shopping list, the user should swipe left on the list name and select “Yes” on the pop-up message. This will bring up the editor, which is where the user can change the title and description of the list that they wish to edit.



To delete an existing shopping list, swipe right on the list name and select “Yes” on the prompt that asks for confirmation.

Add products to a shopping list by manual search:

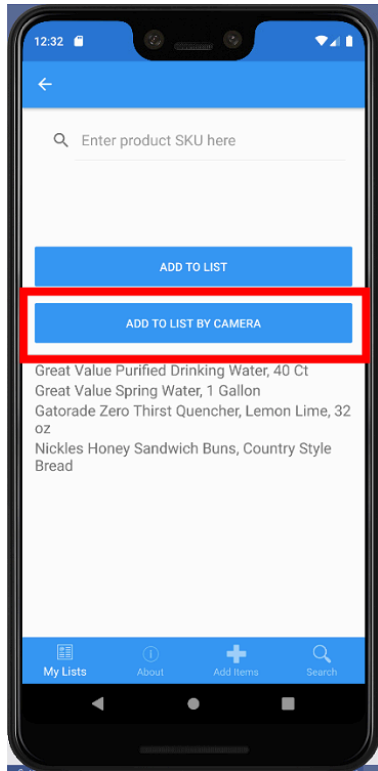
To add a product to a shopping list by manually typing in the item’s SKU number, the user should click on the list that they wish to add to. Upon doing so, they will see a search bar, followed by two buttons, and their list beneath the buttons, as shown below.



To search for a product, the user should enter the SKU into the search bar and click on the top button, which is labeled “Add to List”. This will add the item with that SKU into the list that the user has chosen.

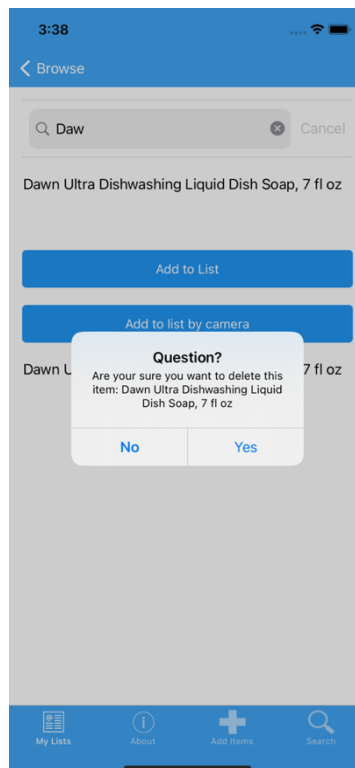
Add products to a shopping list by barcode (camera functionality):

This is done on the same page as the manual search. Rather than typing in the SKU numbers themselves, the user should simply select the “Add to List by Camera” button to access their device’s camera. Simply scan the barcode to add the product to the list. Examples of this can be seen on the next page.



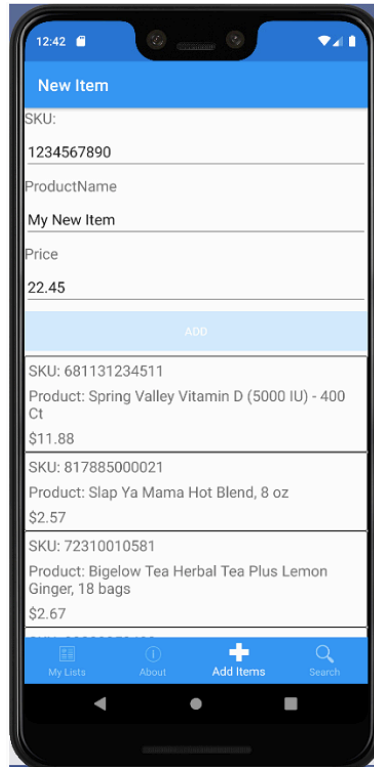
Remove products from a shopping list:

To remove products from a list, the user needs to swipe right on the object that they wish to delete. They will then see a pop-up that asks them to confirm that they intended to delete the item. After selecting “Yes”, they will see that the item has been removed from their list.



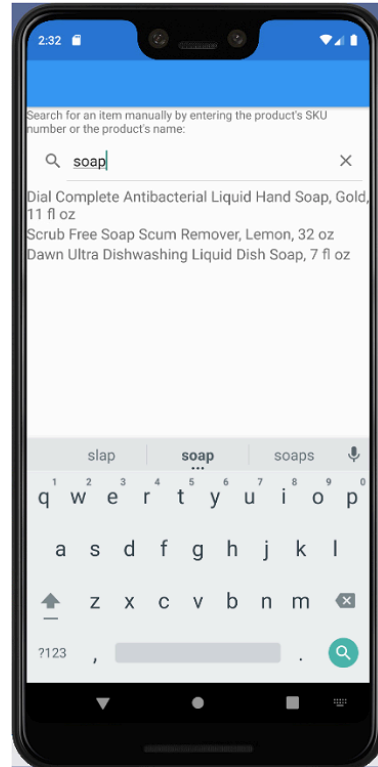
Add products to the product database:

To add a product to the BCGL app database, the user should select “Add Items” from the navigation bar. They will be taken to a “New Item” page, which is shown below. From here, they will be able to enter the SKU, product title, and price to the database as an item.



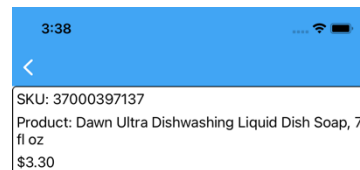
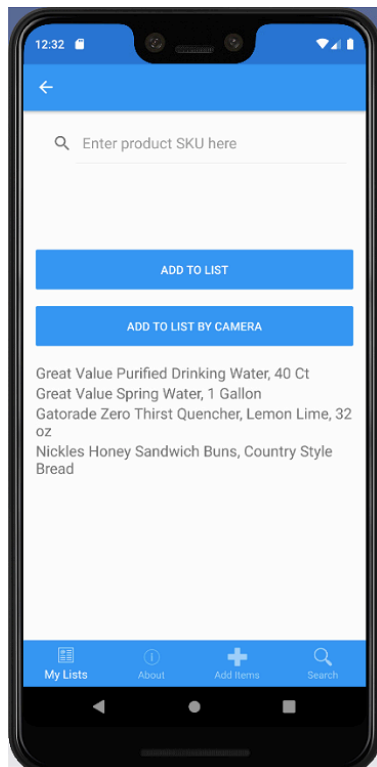
Search for products in the app’s product database:

To search for existing products stored in the app’s database, the user should click on the “Search” function in the navigation bar. After the user is presented with the Search page, they can begin typing a product’s name or SKU into the search box. As the user types, the app will display all items that meet the current search criteria, in real time as the user types. It is important to note that one cannot add an item to a shopping list from this page. Instead, this was designed to serve as a confirmation that a specified item currently exists in the BCGL product database, and also so that the user knows which items are not present and therefore need to be added.



Viewing item details:

To view an item's details, simply click on the item that you wish to view. This will display the SKU, title, and price of the selected product.



Other Issues:

Security Feature: Hidden Password Field-

On the login page, the password field automatically hides characters typed with black dots instead of displaying the characters in cleartext. This serves as a security control and helps to protect the credentials of BCGL users.

Security Feature: Authentication Backend System-

This app uses the Firebase integration to control account handling. By using Firebase, we require a valid email to be used and a password of your choosing. All authentication is handled securely by the Firebase servers. Firebase is owned and actively supported by Google. This product serves as a secure authentication mechanism for many modern mobile applications.

Troubleshooting

- If any problems occur when logging into the app, please make sure the device is connected to Wi-Fi.
- If you believe your login credentials are correct and you are still being prompted with an invalid credentials message, please email the RAID Inc. Support team at raidincsoftware@gmail.com.
 - Additionally, see the “About” page in the app’s navigation bar for more information about RAID Inc., as well as for quick links to their contact information.
- If you believe an action is not working as expected, please reload the app, and try again. For example, this would include issues with swiping on an item to delete or edit it. If the problem continues, please email raidincsoftware@gmail.com for further support.
- If an item you added to a shopping list does not appear on the list, please use the navigation screen back button to move to another screen, and then move back.
- If an item you removed from a list does not disappear, please use the navigation screen back button to move to another screen, and then move back.
- If your camera freezes or displays a black screen, please go to your device settings and make sure the camera functionality is enabled.

List of Commands, Hot Keys and/or GUI Actions:

Login page:

Text box: Touch the box and then type via the keyboard that appears on device screen.

Button to Login: After both text boxes are filled, touch the button to login and move to next page.

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**RAID
INC.**

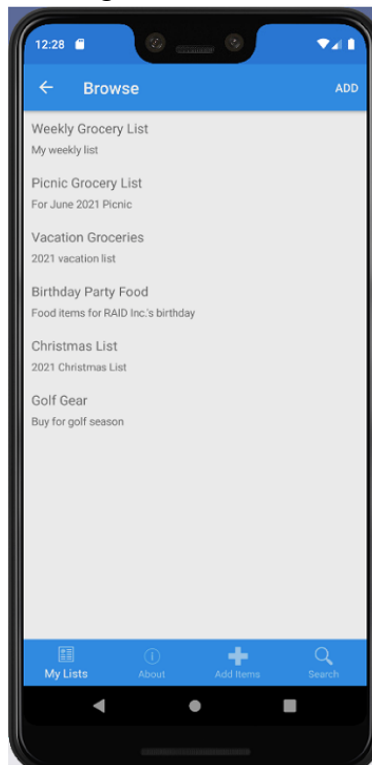
Login

My Lists page:

Add new list: Hit the button in the upper right corner to make a new list.

Delete list: Swipe the selected list left and follow the on-screen prompts.

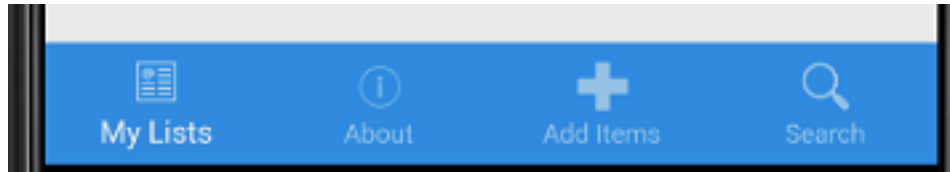
Edit list: Swipe the selected list right and follow the on-screen prompts.



Navigation Bar:

Buttons: Tap the corresponding button icon to go to the desired page.

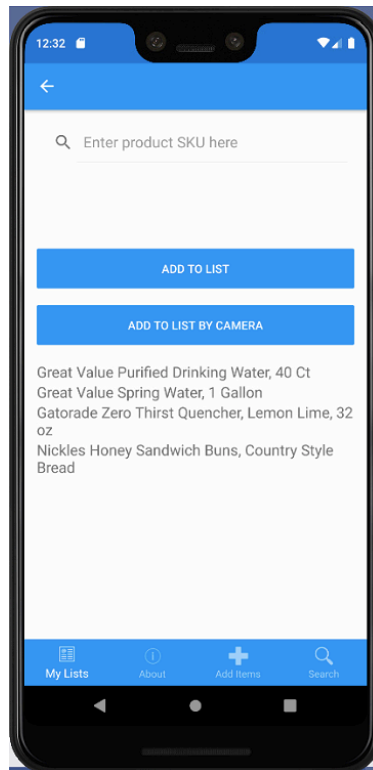
Back button: Click the button in the upper left corner to go to the previous page.



Items in List Page:

Delete item: Swipe left on the selected item and follow the on-screen prompts.

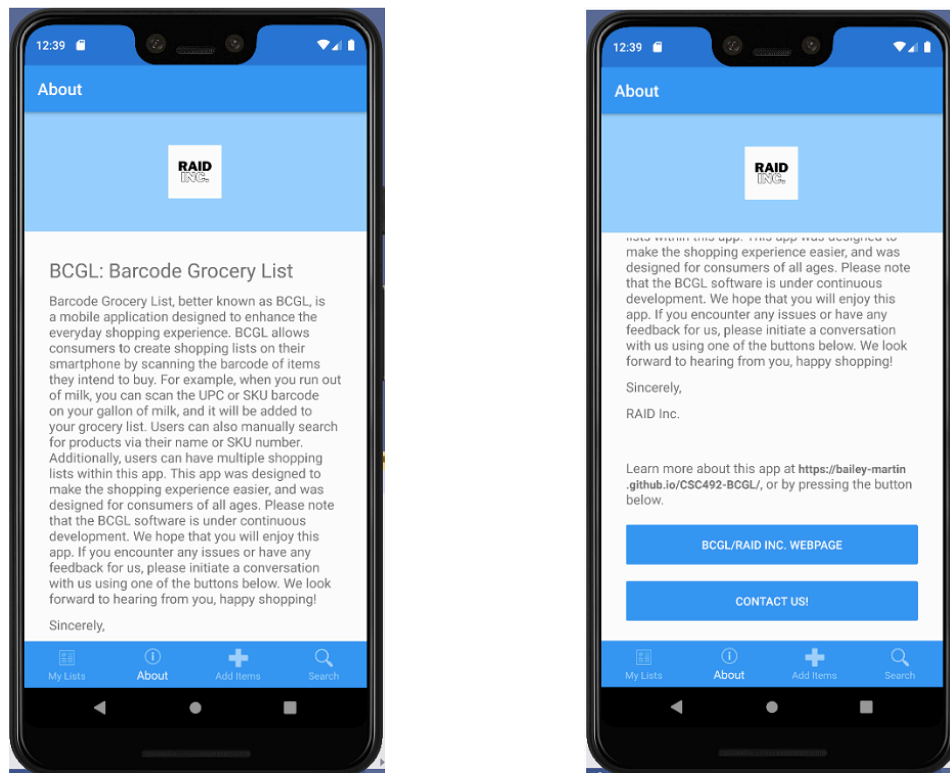
View item: Tap the selected item and screen will move to a detailed view of the product.



About page:

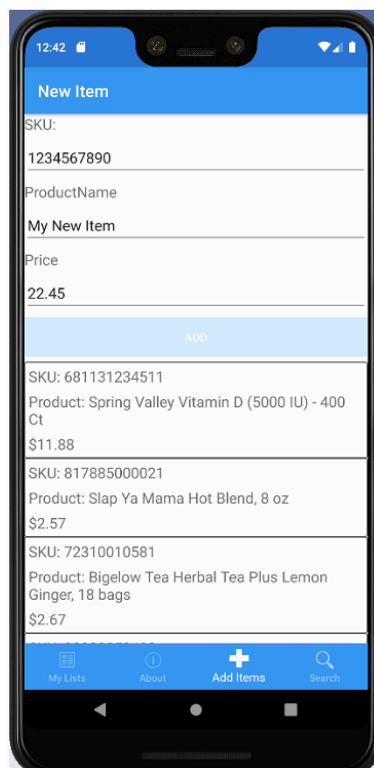
Go to website: Click the button labeled “BCGL/RAID INC. WEBPAGE”.

Contact us: Click the button labeled “CONTACT US”.



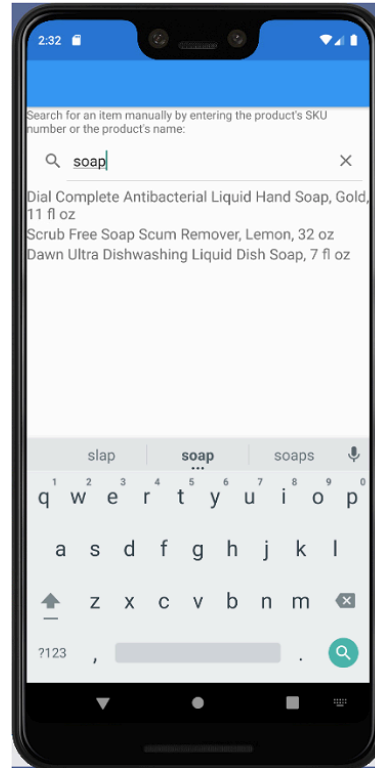
Add Items To database:

Form: Enter the required data items into the three text boxes. Then, hit the “Add” button that turns blue. The Add button is initially “grayed” out.



Search page:

Find item: Type in the text bar with the SKU or product name. As you type, the items matching the entered string will appear on the screen.



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