Screen Sketches

MartSmart, Group SR_5

Members:
Gregory Ling
Miles Hankins
Fahmi Rafie
Matt Karmelich

Actors

- New User

This is a user who has never created a list. The user will first be prompted with a Sign In with Google screen before being able to access anything within the app. Once the user is signed-in, the new user will have no lists. Any user with no lists will fall under the category of users and will be shown a single-screen welcome / tutorial on the dashboard to get them oriented. These users have full functionality within the app to create a list, join a list, or use their personal list.

- List Owner

This actor applies within a list. Inside a list, the owner has full authority to manage the list, including remove users from the list and invite new users to the list in addition to those permissions held by list members. List Owners can access list settings to specify the monetary splitting policy and similar configurations.
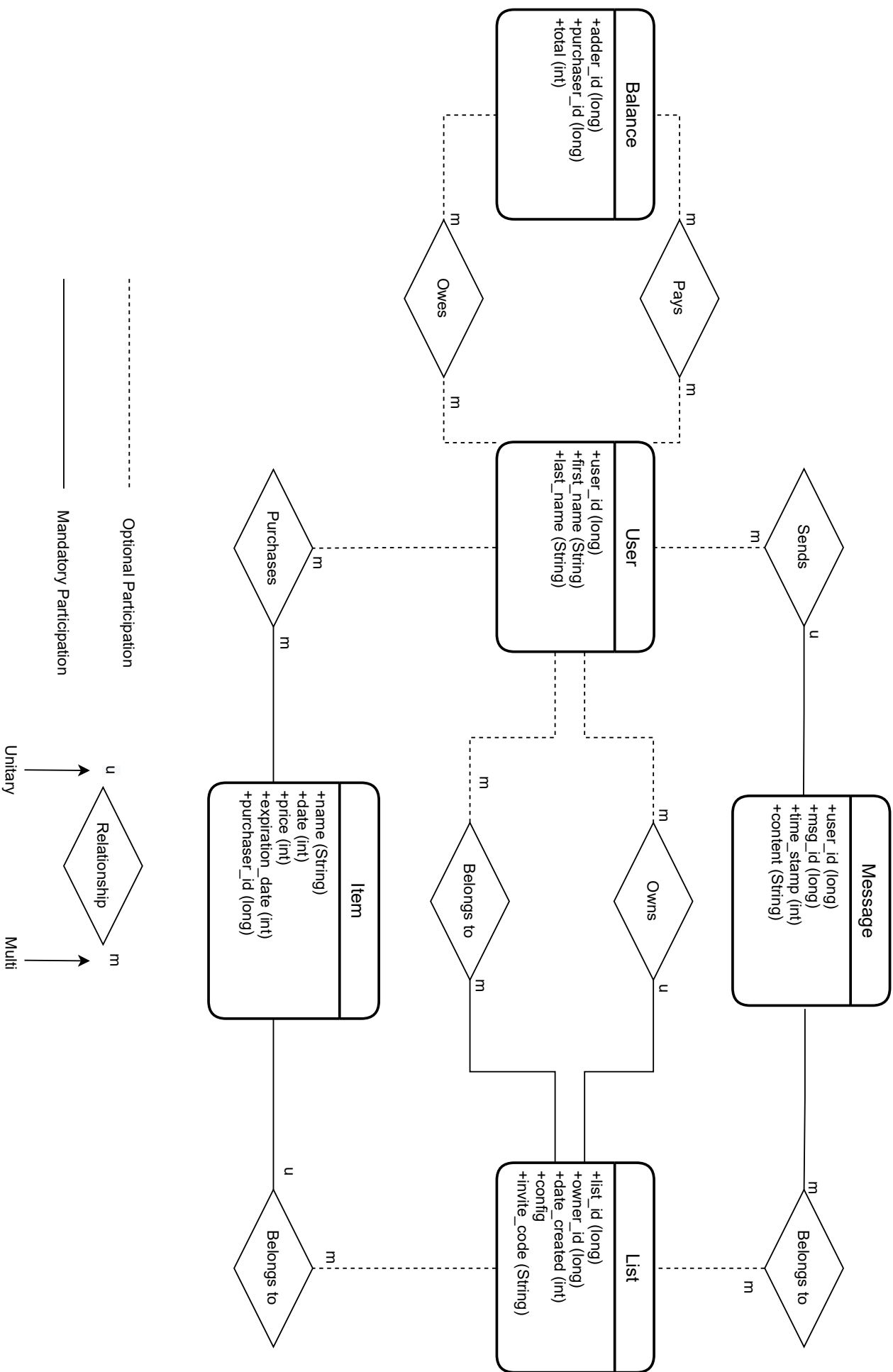
- List Member

This actor also applies within a list. Inside a list, a list member has the authority to add items, pay back members, accept payments from members, or permanently remove items from a list. They can also execute a shopping trip which will allow them to specify items which have been bought by them and to mark the price and expiration date. List members may add users to the list, but he list owner may remove list members at any time.
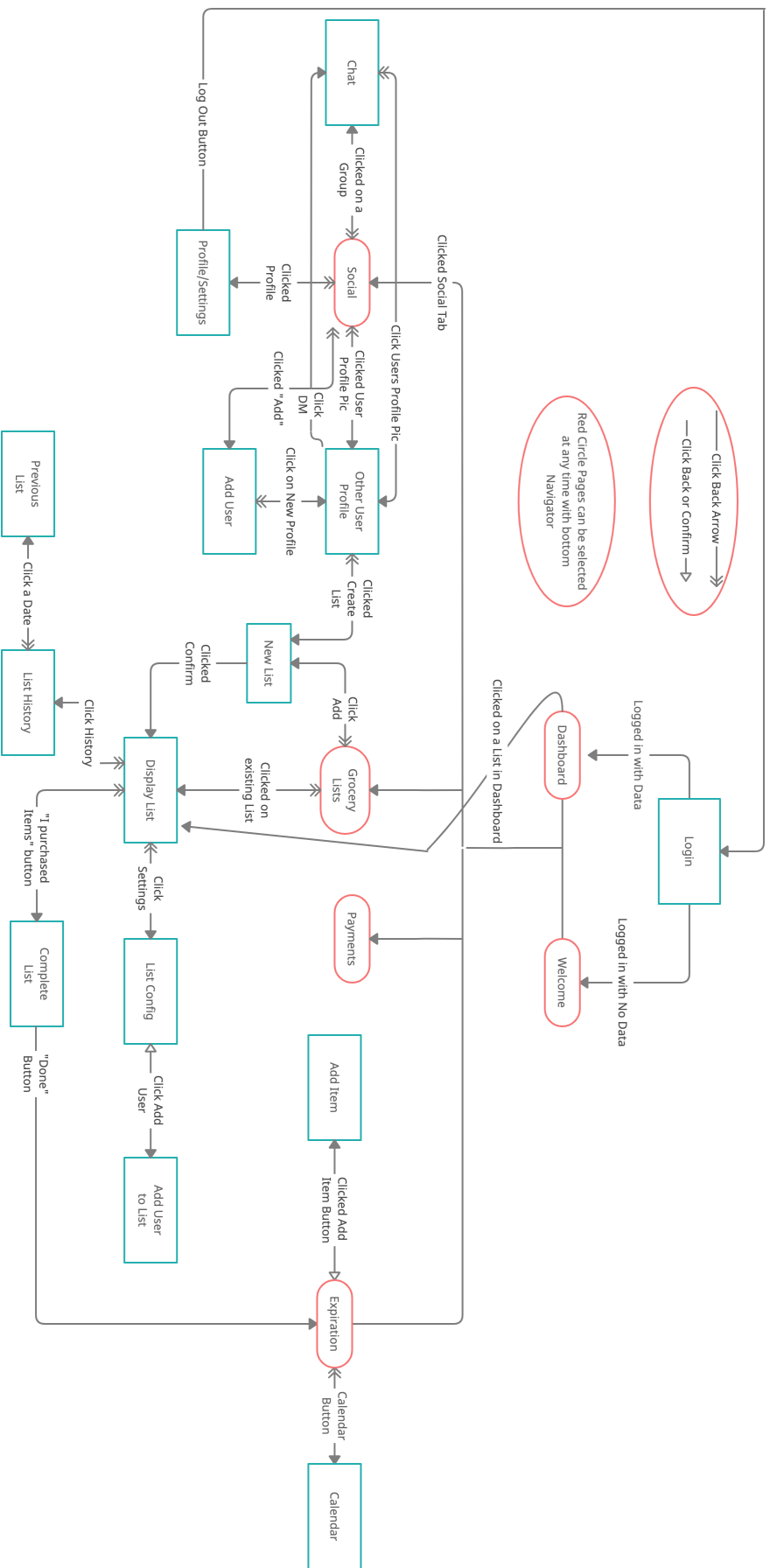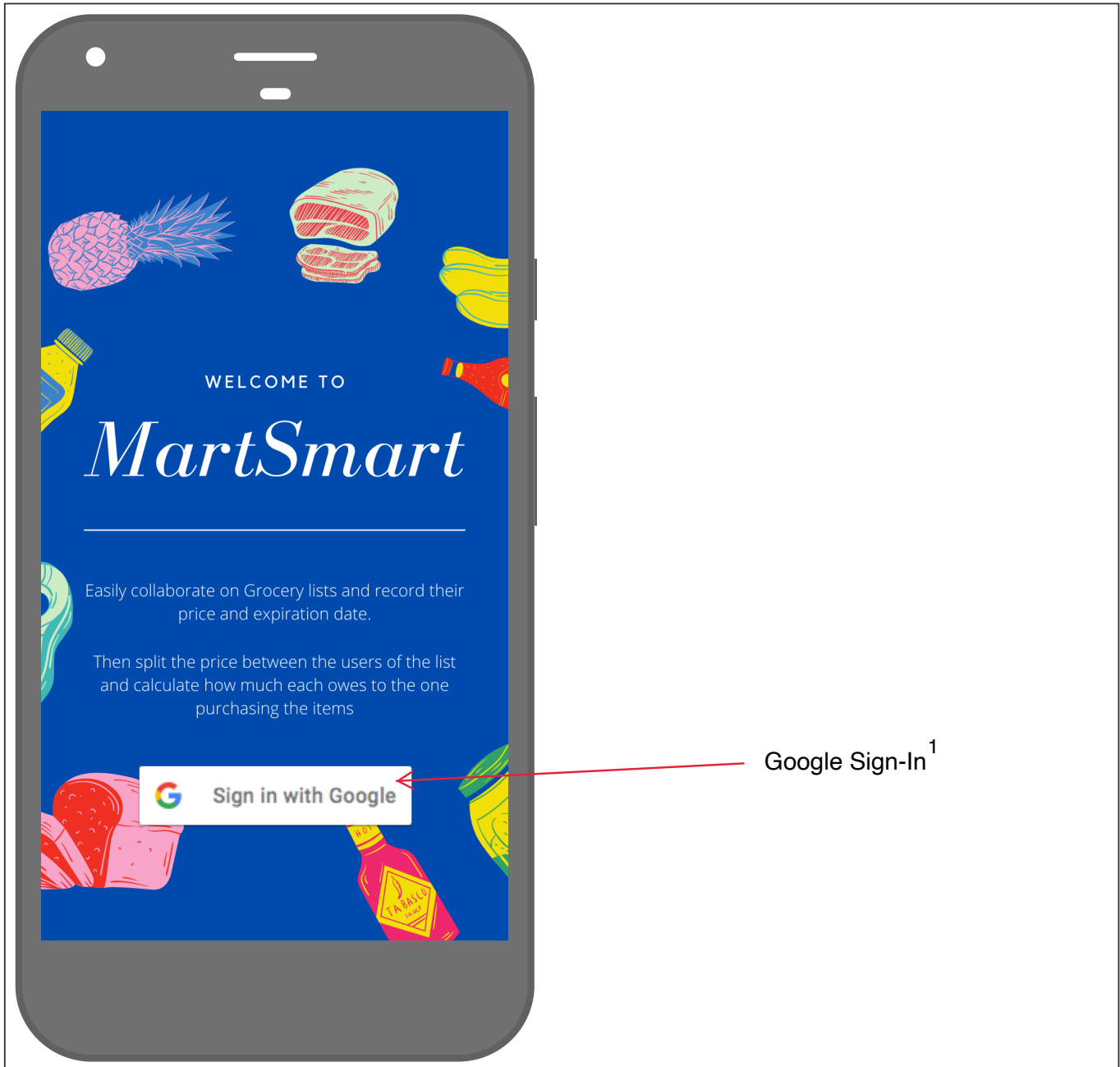
Non-Functional Requirements

This project has many non-functional requirements, but the three most important for this project are:

- Extensibility

- Portability

- Usefulness

Database Diagram - First Draft

Balance
- +adder_id (long)
- +purchaser_id (long)
- +total (int)

User
- +user_id (long)
- +first_name (String)
- +last_name (String)

Message
- +user_id (long)
- +msg_id (long)
- +time_stamp (int)
- +content (String)

Item
- +name (String)
- +date (int)
- +price (int)
- +expiration_date (int)
- +purchaser_id (long)

List
- +list_id (long)
- +owner_id (long)
- +date_created (int)
- +config
- +invite_code (String)

Relationships: Owes (m, m), Pays (m, m), Purchases (m, m), Sends (m, u), Belongs to (m, m), Owns (m, u), Belongs to (u, m), Belongs to (m, m)

Legend:
- ------ Optional Participation
- ——— Mandatory Participation

Relationship
- Unitary → u
- Multi → m

Chat

Log Out Button

Clicked on a Group

Profile/Settings

Clicked Profile

Social

Clicked Social Tab

Clicked Users Profile Pic

Click Users Profile Pic

Clicked User Profile Pic

Click DM

Clicked "Add"

Add User

Click on New Profile

Other User Profile

Clicked Create List

Previous List

Click a Date

List History

Click History

Clicked Confirm

New List

Click Add

Display List

Clicked on existing List

Grocery Lists

Clicked on a List in Dashboard

Dashboard

Click Back Arrow

Click Back or Confirm

Red Circle Pages can be selected at any time with bottom Navigator

Logged in with Data

Login

Logged in with No Data

Welcome

Payments

"I purchased Items" button

Complete List

"Done" Button

Click Settings

List Config

Click Add User

Add User to List

Add Item

Clicked Add Item Button

Expiration

Calendar Button

Calendar

WELCOME TO

MartSmart

Easily collaborate on Grocery lists and record their price and expiration date.

Then split the price between the users of the list and calculate how much each owes to the one purchasing the items

Sign in with Google

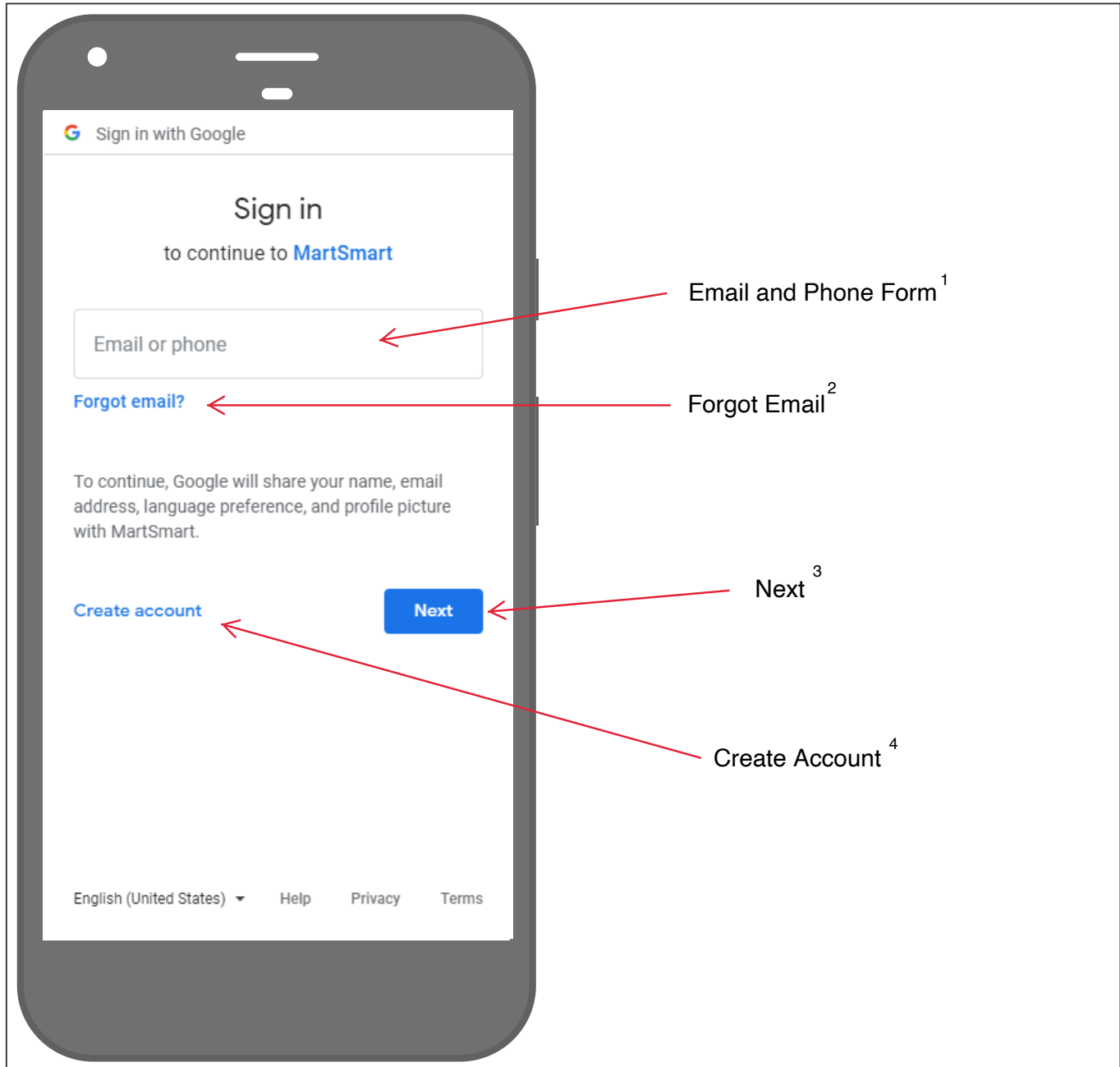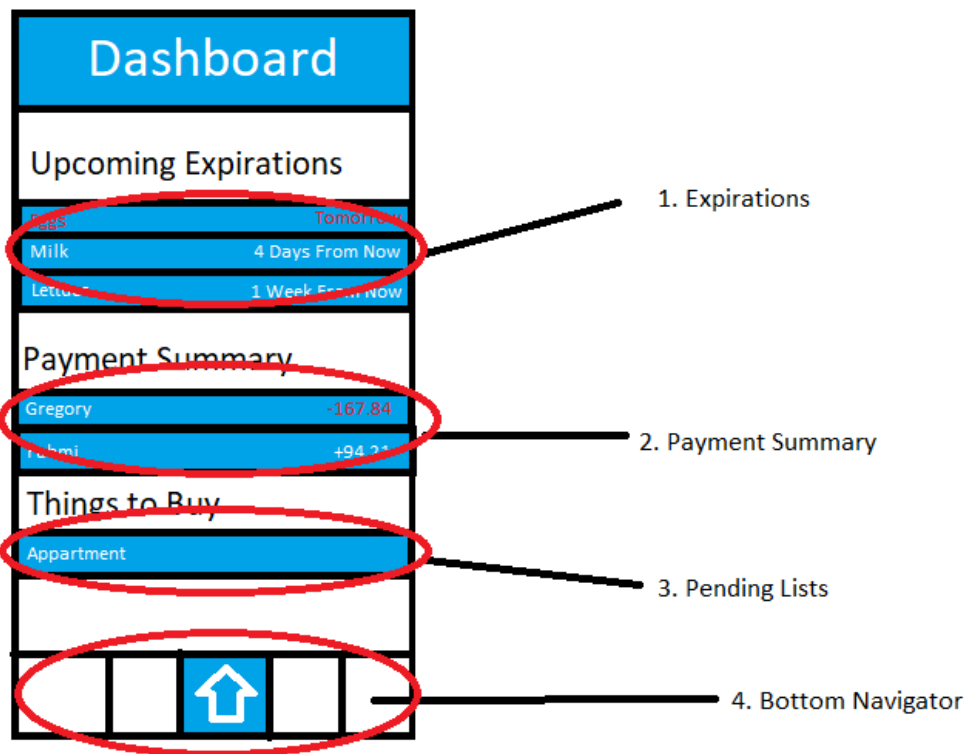Google Sign-In [1]

This screen is the first page displayed for users who are not logged in. Clicking the sign-in button (1) will send user to Google's Sign-In screen where users can log in with their Google accounts.
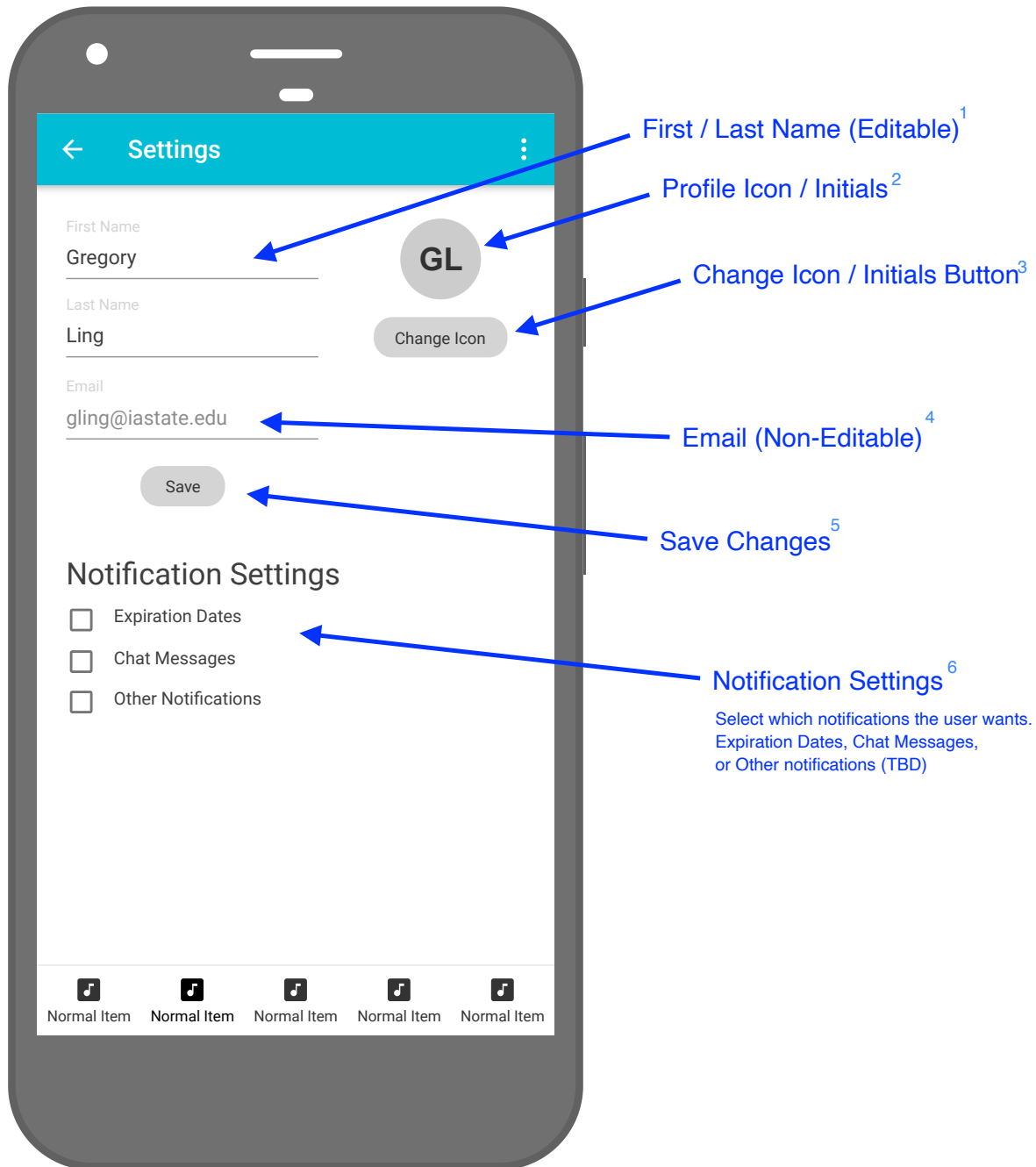
Sign in with Google

Sign in

to continue to **MartSmart**

Email or phone

Forgot email?

To continue, Google will share your name, email address, language preference, and profile picture with MartSmart.

Create account

Next

English (United States) ▾   Help   Privacy   Terms

Email and Phone Form [1]

Forgot Email [2]

Next [3]

Create Account [4]

This screen is generated by Google API automatically and users can simply enter their email or phone number associated with their Google accounts (1). Once users enter their correct email addresses, or phone numbers, they need to click the next button (3) to enter their password and complete the sign-in process. If they don't have a Google account, they can simply create one (4). And if they don't remember their email address, they can try to recover it using Google's API (2).
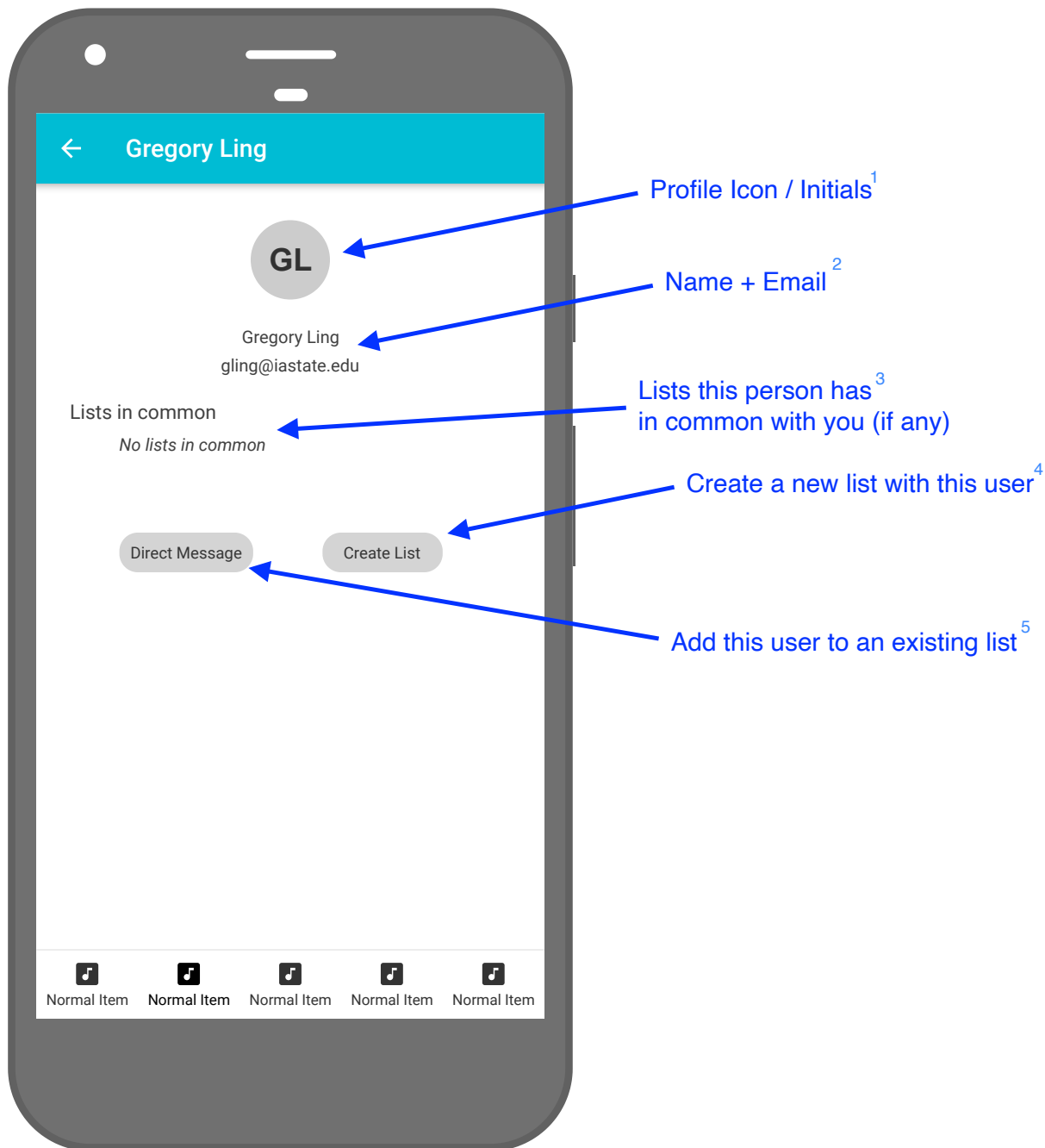
Dashboard

Upcoming Expirations

Eggs	Tomorrow
Milk	4 Days From Now
Lettuce	1 Week From Now

Payment Summary

Gregory	-167.84
Yohmi	+94.21

Things to Buy

Appartment

1. Expirations

2. Payment Summary

3. Pending Lists

4. Bottom Navigator

This is the dashboard page. When the user first logs in or opens the app, this page appears. Its purpose is to summarize the user's data that the app stores and to easily navigate to different parts of the app. 1. The experience table shows upcomming expiring items and how close they are to expiring. Clicking on this table will lead to the expiratoins screen. 2. The payment summary shows both how much you owe and how much is to be payed to you. Clicking on this table will lead to the payments screen. 3. The pending lists page shows your lists with unbought items. Clicking it will go to the lists screen. If any of the tables (1-3) do not contain data, they will not appear on the dashboard. 4. The navigator allows you to access the 5 main pages of our app, (Social, Lists, Dashboard, Payments, and Expirations respectively).
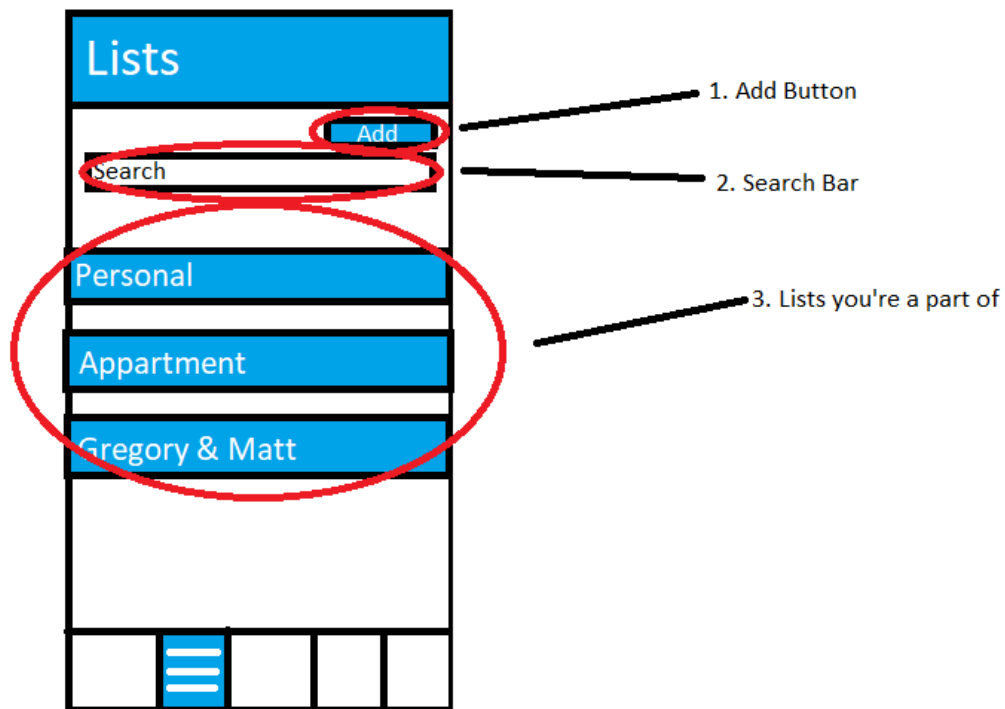
Social   Profile — 1. Profile

Add — 2. Add Button

Search — 3. Search bar

Groups

Appartment — 4. Group Chat

Gregory and Matt

Direct — 5. Individual Profiles

O Fahmi

O Miles

O Gregory

This is the social page. It allows you to view your profile, add new connections, message your grocery group or individuas, and view the profiles of other users. 1. The profile button leads you to the profile screen. 2. The add button leads to a new screen that allows you to add new connections by entering their email. 3. The search bar lets you search for groups or individuals you're already connected with. 4. Selecting a group or individual will lead to a chat screen that allows you to talk to them. 5. Selecting an individuals profile picture will lead you to their profile screen.

Settings

← **Settings**   ⋮

First Name
Gregory

Last Name
Ling

Email
gling@iastate.edu

Save

Notification Settings

☐ Expiration Dates

☐ Chat Messages

☐ Other Notifications

GL

Change Icon

🎵 Normal Item   🎵 **Normal Item**   🎵 Normal Item   🎵 Normal Item   🎵 Normal Item

First / Last Name (Editable) [1]

Profile Icon / Initials [2]

Change Icon / Initials Button [3]

Email (Non-Editable) [4]

Save Changes [5]

Notification Settings [6]

Select which notifications the user wants.
Expiration Dates, Chat Messages,
or Other notifications (TBD)

This screen handles the settings and profile for the current user. It shows the user's first and last name (1) and allows the user to edit these. It shows the user's email (2), but does not allow editing of this field because the email is one of the identifying markers of a user. The profile icon (3) shows the initials or profile icon of the user, and a change icon button is made available (4) to change that. These changes can be saved by pressing the save button (5). The user can select which notifications they want to have sent to them using the checkboxes under Notification Settings (6). This screen will be accessed through the three dotson any other screen.
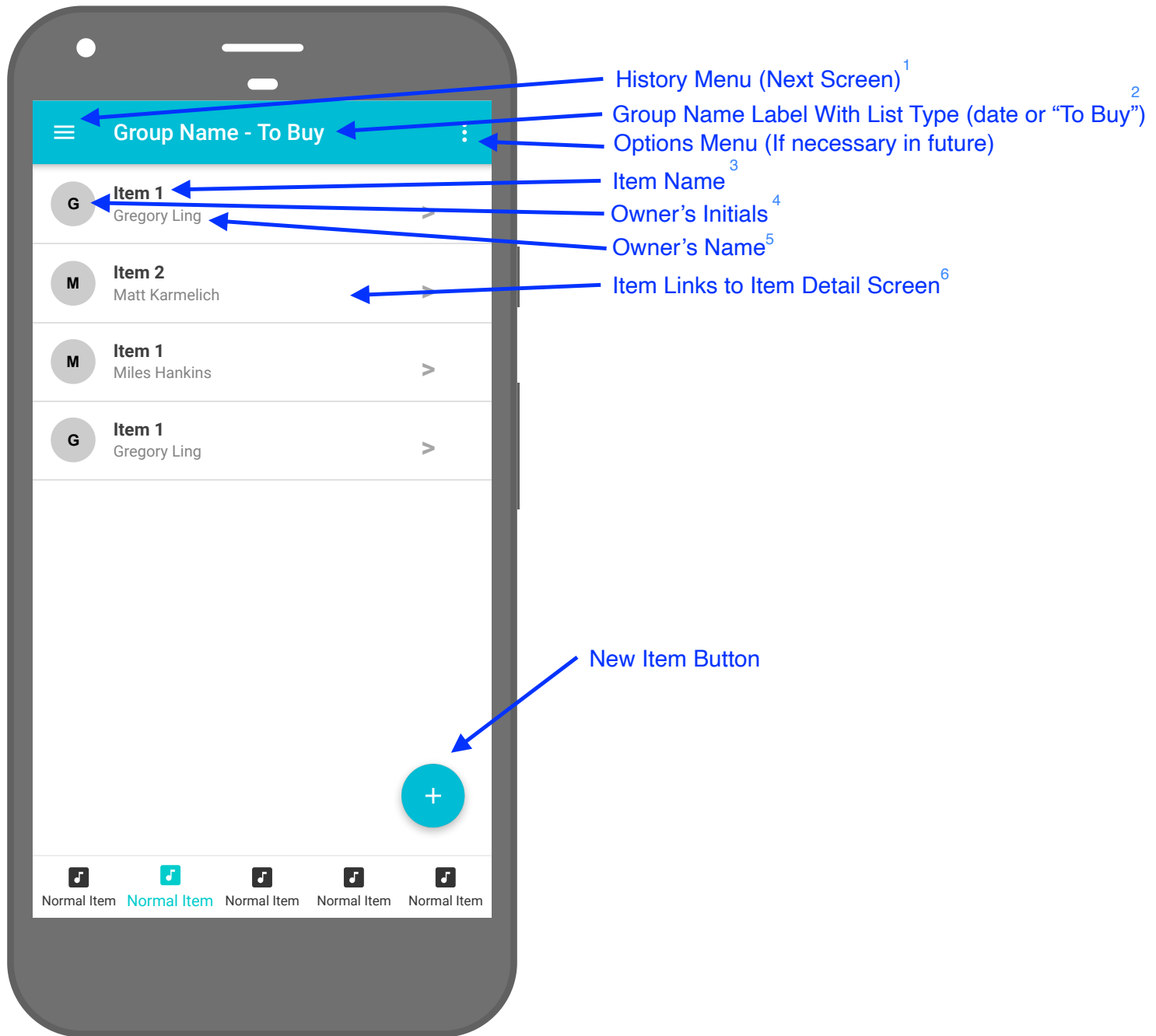
Profile

← **Gregory Ling**

GL

Gregory Ling
gling@iastate.edu

Lists in common
No lists in common

Direct Message   Create List

Normal Item   Normal Item   Normal Item   Normal Item   Normal Item

Profile Icon / Initials[1]

Name + Email [2]

Lists this person has [3]
in common with you (if any)

Create a new list with this user[4]

Add this user to an existing list [5]

This screen shows the profile of another user and allows the user easy access
to add the user to a list or create a list with them. The profile icon or initials (1) are
shown along with the user's name and email (2) prominently on the screen. Any
lists this user has in common with the current user will appear in the Lists in
common section (3). There are also two buttons, one to add the user to an existing
list (5), and one to create a new list with this user (4). Profiles will be accessible
only by entering the full email address.

Lists

Add

Search

Personal

Appartment

Gregory & Matt

1. Add Button

2. Search Bar

3. Lists you're a part of

This is the lists page. It dispays the grocery lists you're apart of and allows you to create new ones. 1. The add button leads to a new screen that lets you add a new list. 2. The search bar allows you to search for a grocery list. 3. The lists belowed can be tapped to display the screen for that specific list.
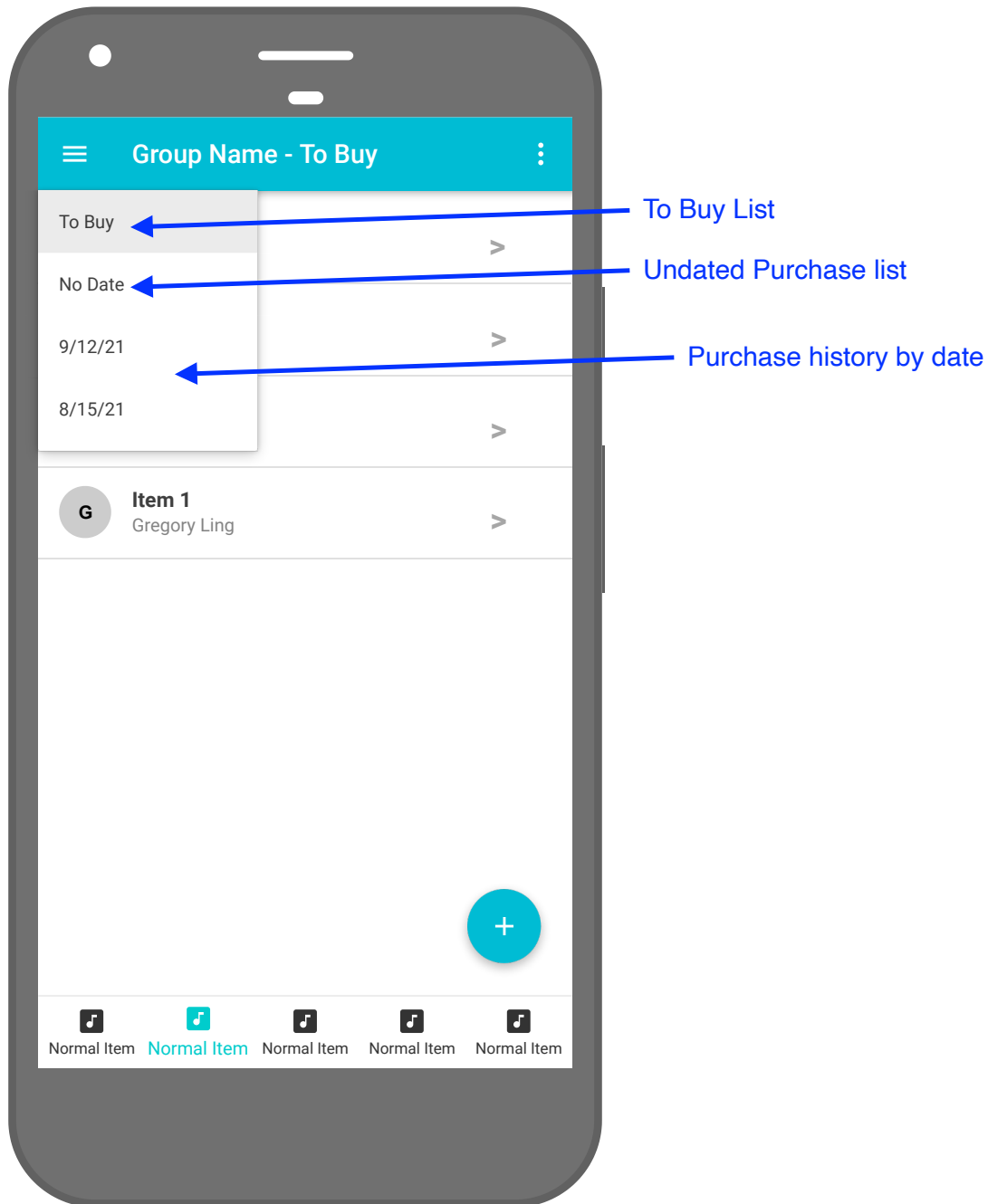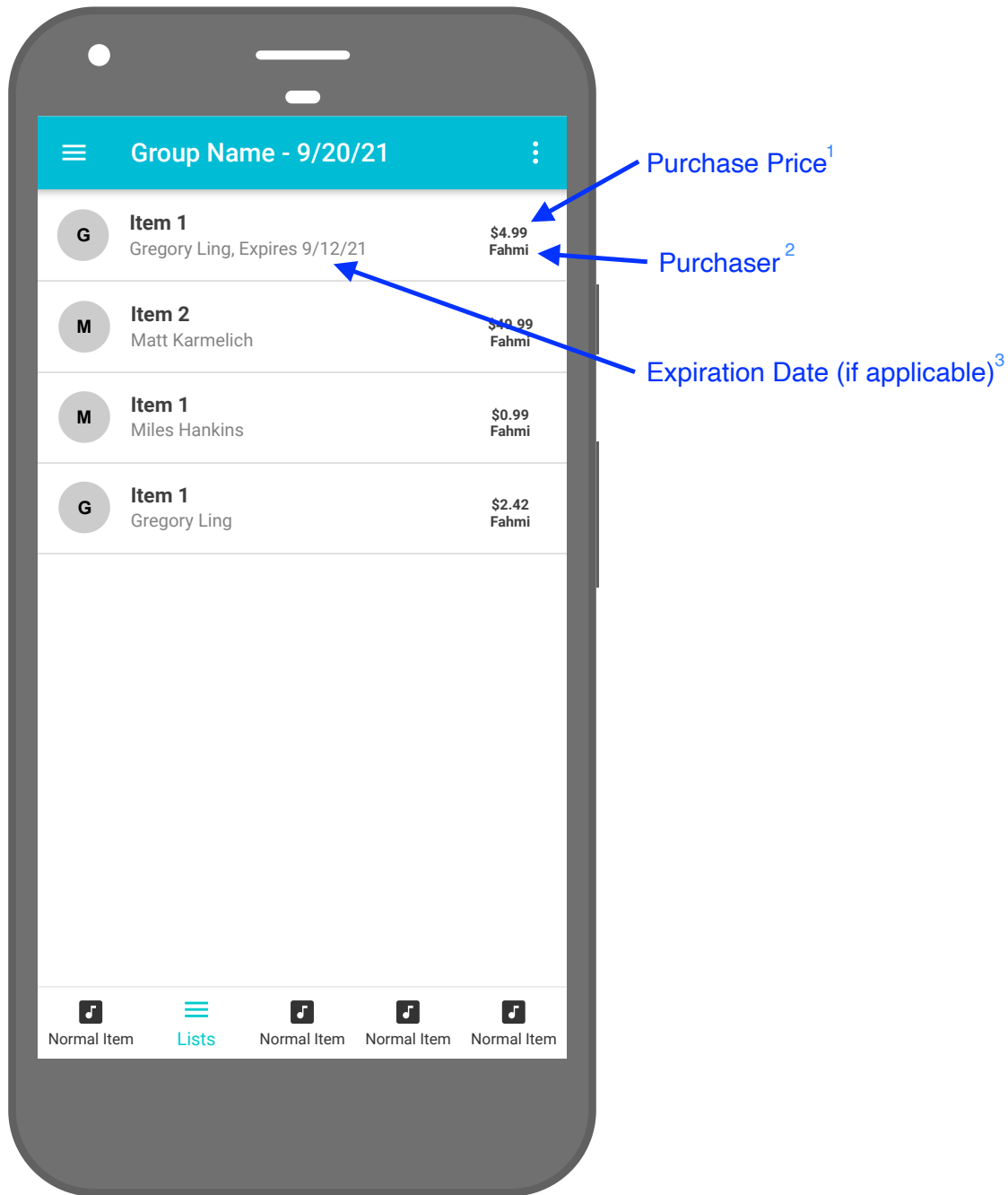
Gregory Ling

Lists

History Menu (Next Screen) [1]

Group Name - To Buy

Group Name Label With List Type (date or "To Buy") [2]

Options Menu (If necessary in future)

Item Name [3]

Item 1
Gregory Ling

Owner's Initials [4]

Owner's Name [5]

Item 2
Matt Karmelich

Item Links to Item Detail Screen [6]

Item 1
Miles Hankins

Item 1
Gregory Ling

New Item Button

+

Normal Item   Normal Item   Normal Item   Normal Item   Normal Item

This screen shows the main view of a list. Here each item's name (3), owner's profile icon or initials (4) and owner's name (5) are displayed for each item. Each item also links to an item detail screen (6) when pressed. The New Item button (7) allows the user to add an item to this list. The three bars allows the user to open the history menu (1), and the title will show the group's name and the type of list — One of "To Buy", "No Date", or the purchase date of the items in the list (2).
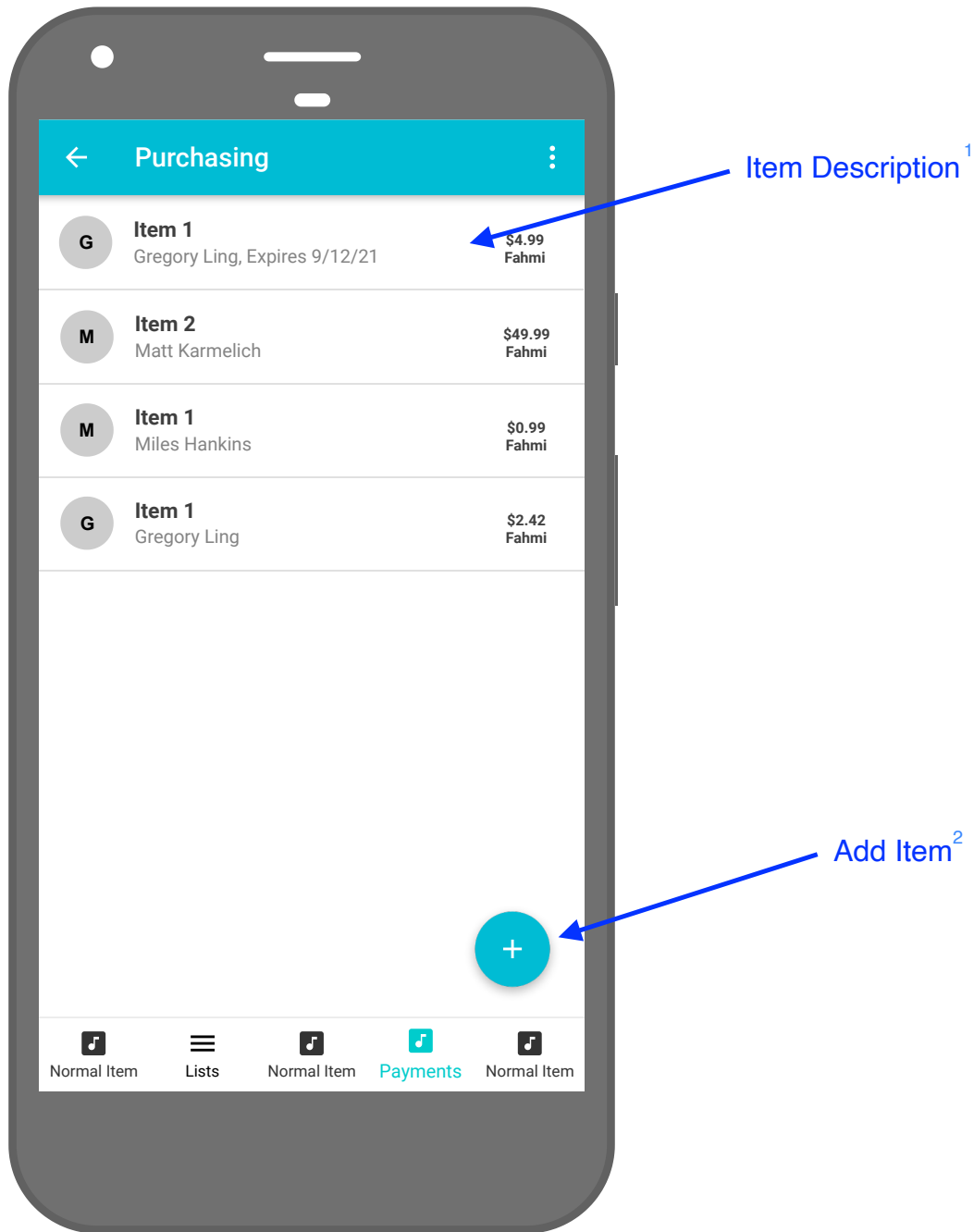
History Menu

Gregory Ling

See lists above for more detail

Group Name - To Buy

To Buy

No Date

9/12/21

8/15/21

Item 1
Gregory Ling

To Buy List

Undated Purchase list

Purchase history by date

Normal Item   Normal Item   Normal Item   Normal Item   Normal Item

Purchased History list

Purchase Price[1]

Purchaser [2]

Expiration Date (if applicable)[3]

Group Name - 9/20/21

G	**Item 1** Gregory Ling, Expires 9/12/21	$4.99 Fahmi
M	**Item 2** Matt Karmelich	$49.99 Fahmi
M	**Item 1** Miles Hankins	$0.99 Fahmi
G	**Item 1** Gregory Ling	$2.42 Fahmi

Normal Item | Lists | Normal Item | Normal Item | Normal Item

This is the view for a purchased list, limited actions because this should be read-only. No clicking on items, no adding new items at this point. You should go to the To Buy list to add items instead. The title should update to show the current history list being viewed. The purchase price (1) will appear just above the name of the user who purchased the item (2). The same information about the item will appear (see lists screen), with the addition of the expiration date (3).
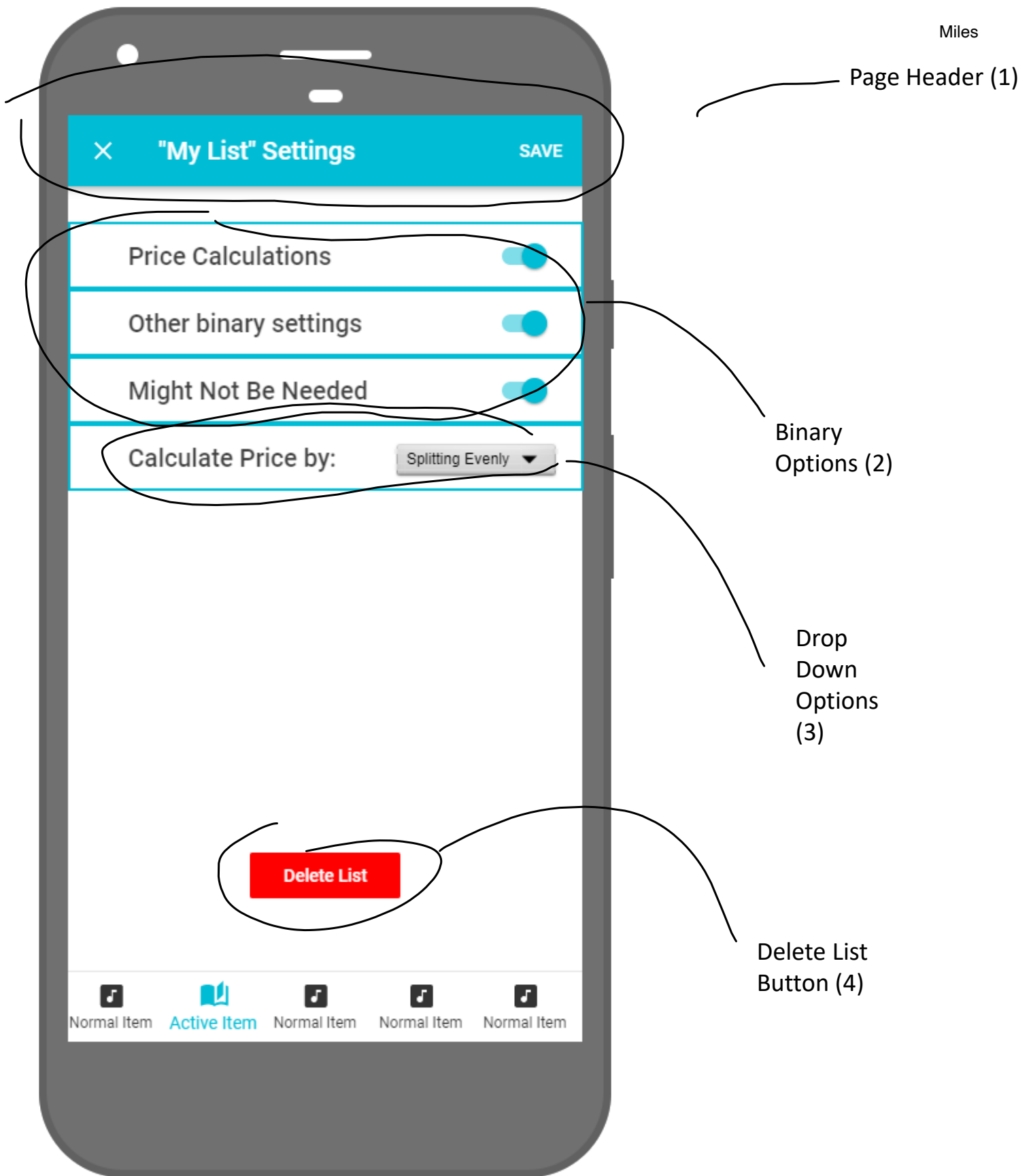
Purchasing

Item Description[1]

| | Purchasing | ⋮ |

| G | **Item 1** Gregory Ling, Expires 9/12/21 | **$4.99** **Fahmi** |

| M | **Item 2** Matt Karmelich | **$49.99** **Fahmi** |

| M | **Item 1** Miles Hankins | **$0.99** **Fahmi** |

| G | **Item 1** Gregory Ling | **$2.42** **Fahmi** |

Add Item[2]

+

Normal Item   Lists   Normal Item   **Payments**   Normal Item

This is the view for purchasing items while at a grocery store. The user may add items using the plus button (2) which will pull up the popup on the next screen. The item description (1) is exactly the same as the history lists (see above). The back button brings the user back to the Payments screen.

Gregory Ling

Purchasing - Popup

New Item Radio Button [1]

From List Radio Button [2]

Select List Dropdown [3]

Select Item Dropdown [4]

Price Entry Field [5]

Expiration Date Field [6]
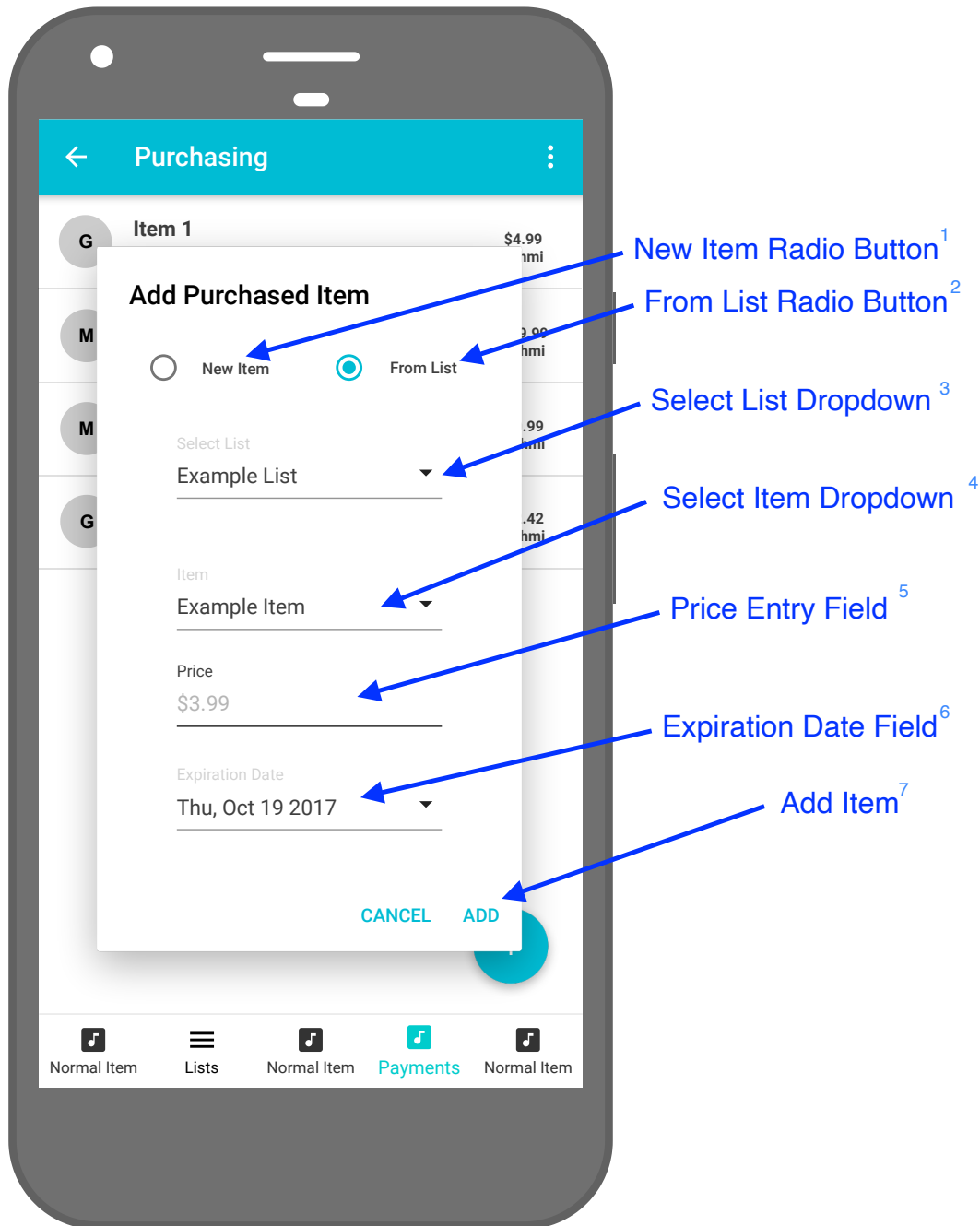
Add Item [7]

This is the popup to purchase an item. If you select New Item (1), then the item dropdown (4) will transform into a plain textual input to allow the addition of a new item while shopping. If you select Add Item (2), which will default as selected when this dialog opens, then the dropdown (4) will only show items existing in the selected list. A list is selected using the dropdown (3) which will show all lists and personal lists the user is a part of. The user will then enter the price (5) and the expiration date if applicable (6), then press the add or cancel button (7) to complete adding an item to the shopping trip.

Page Header (1)

× "My List" Settings   SAVE

Price Calculations

Other binary settings

Might Not Be Needed

Calculate Price by: Splitting Evenly ▼

Binary
Options (2)

Drop
Down
Options
(3)

Delete List

Delete List
Button (4)

🎵   📖   🎵   🎵   🎵
Normal Item   Active Item   Normal Item   Normal Item   Normal Item

The "List Settings" page allows for the user to configure specific setting about the list. They can leave the page by either saving or pressing the x button found on the page header (1). In particular, they can change binary settings(2) like whether or not to calculate price, or drop down setting (3) such as how to calculate the price (if price calculation is enabled). The Delete List button (4) after confirming with the user, would delete the list.
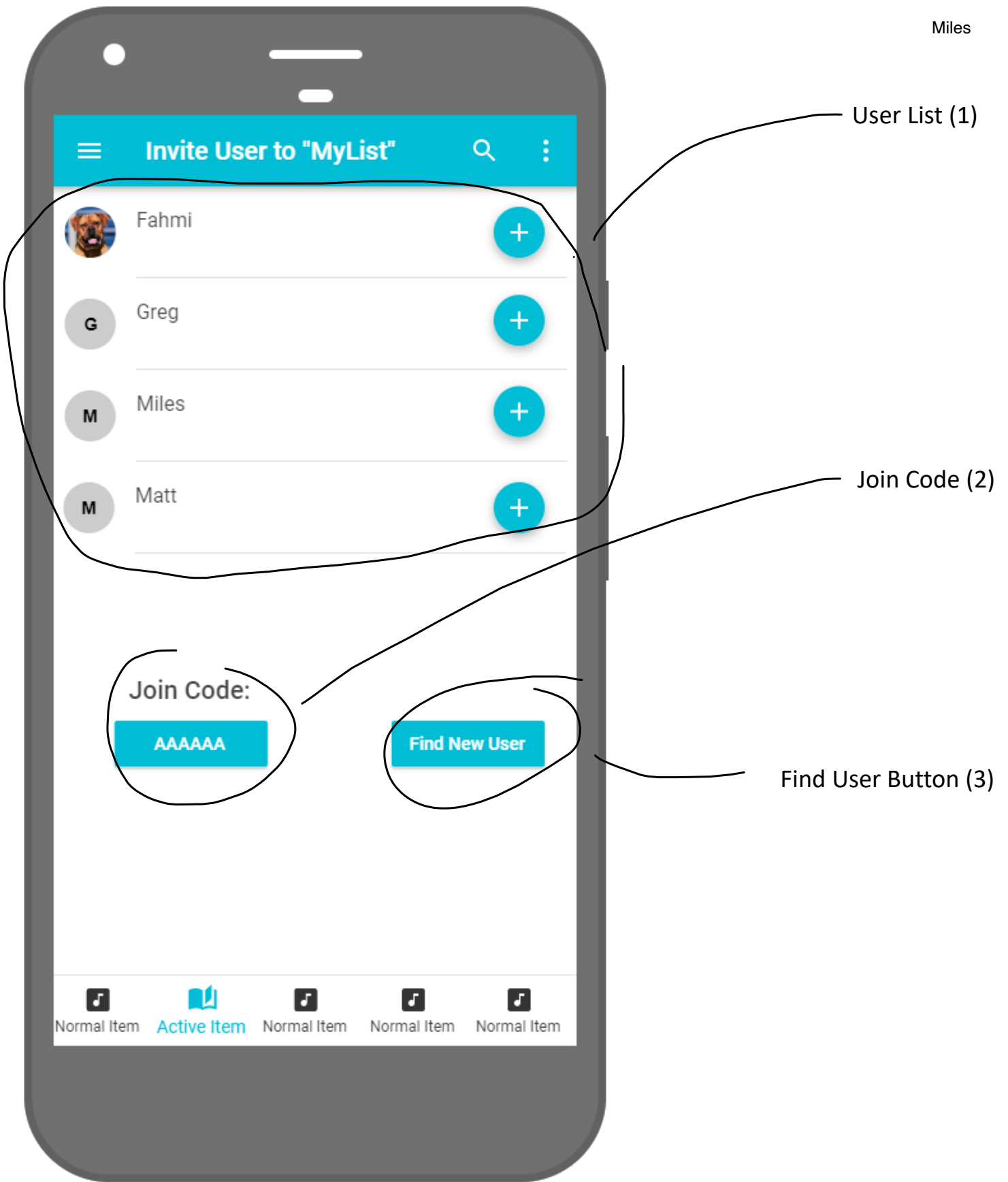
The "Invite User" page allows the creator of the list to add more people to the list. They would be shown their full "friend list" (1) and would be allowed to add users from there. If the user they wish to add is not their friend, they can invite them from using either the Join Code Button (2), which would prompt them to either save the code to their clipboard or directly share it through something like sms, or via the find new user button(3), which would allow them to search for a user by their email address.
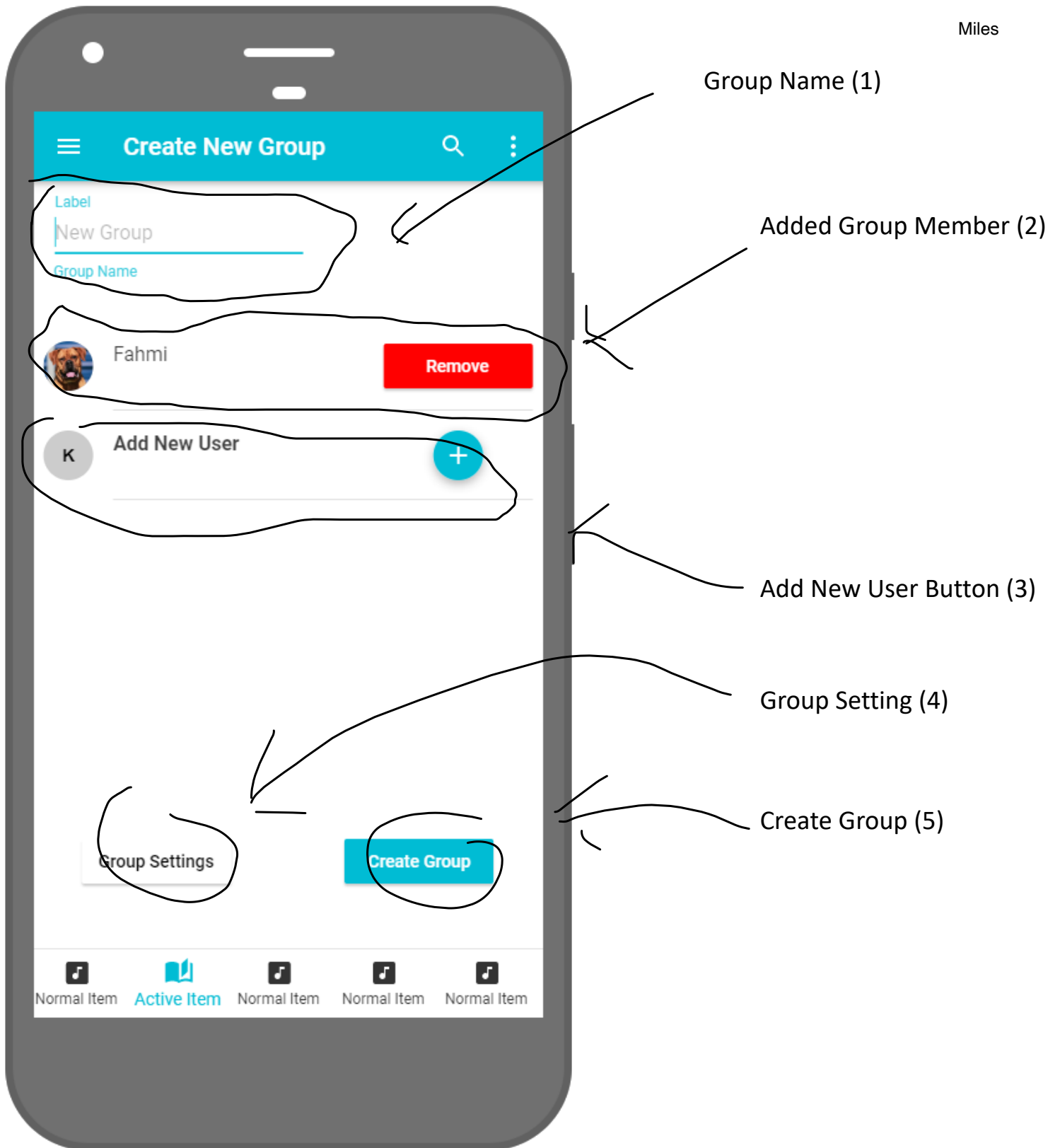
Page Header (1)
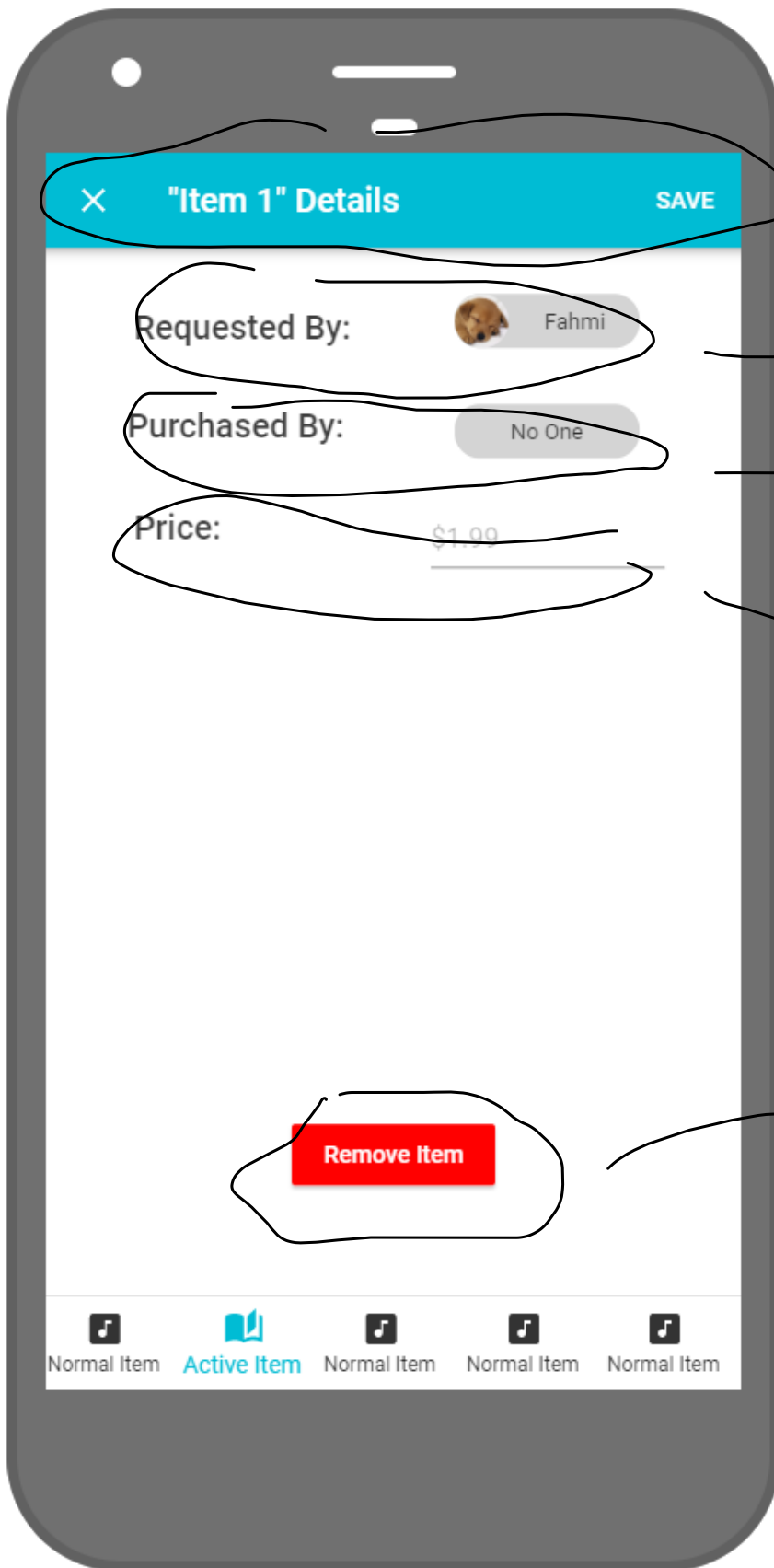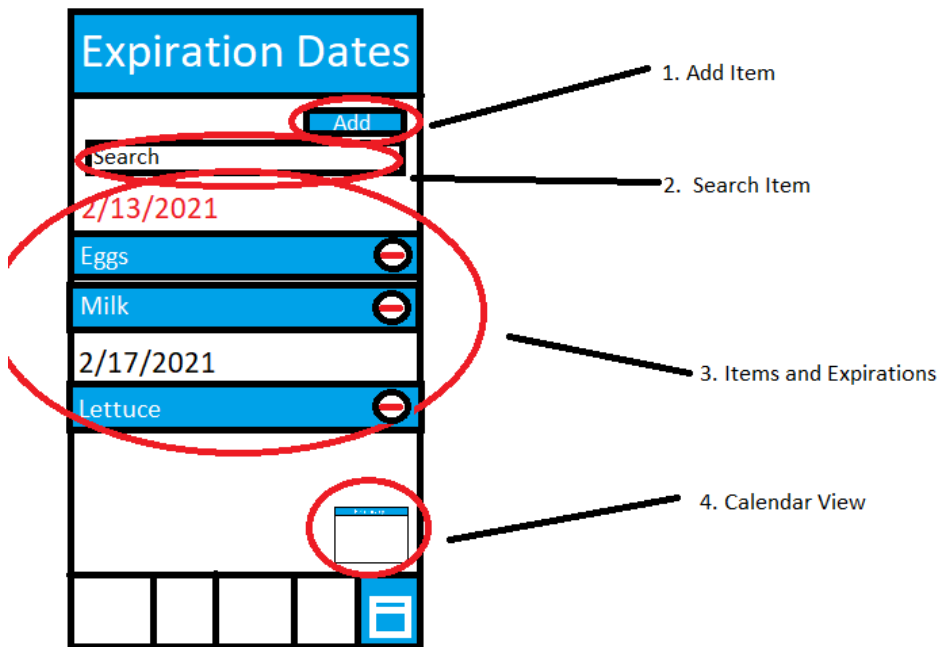
Requested By (2)

Purchased By (3)
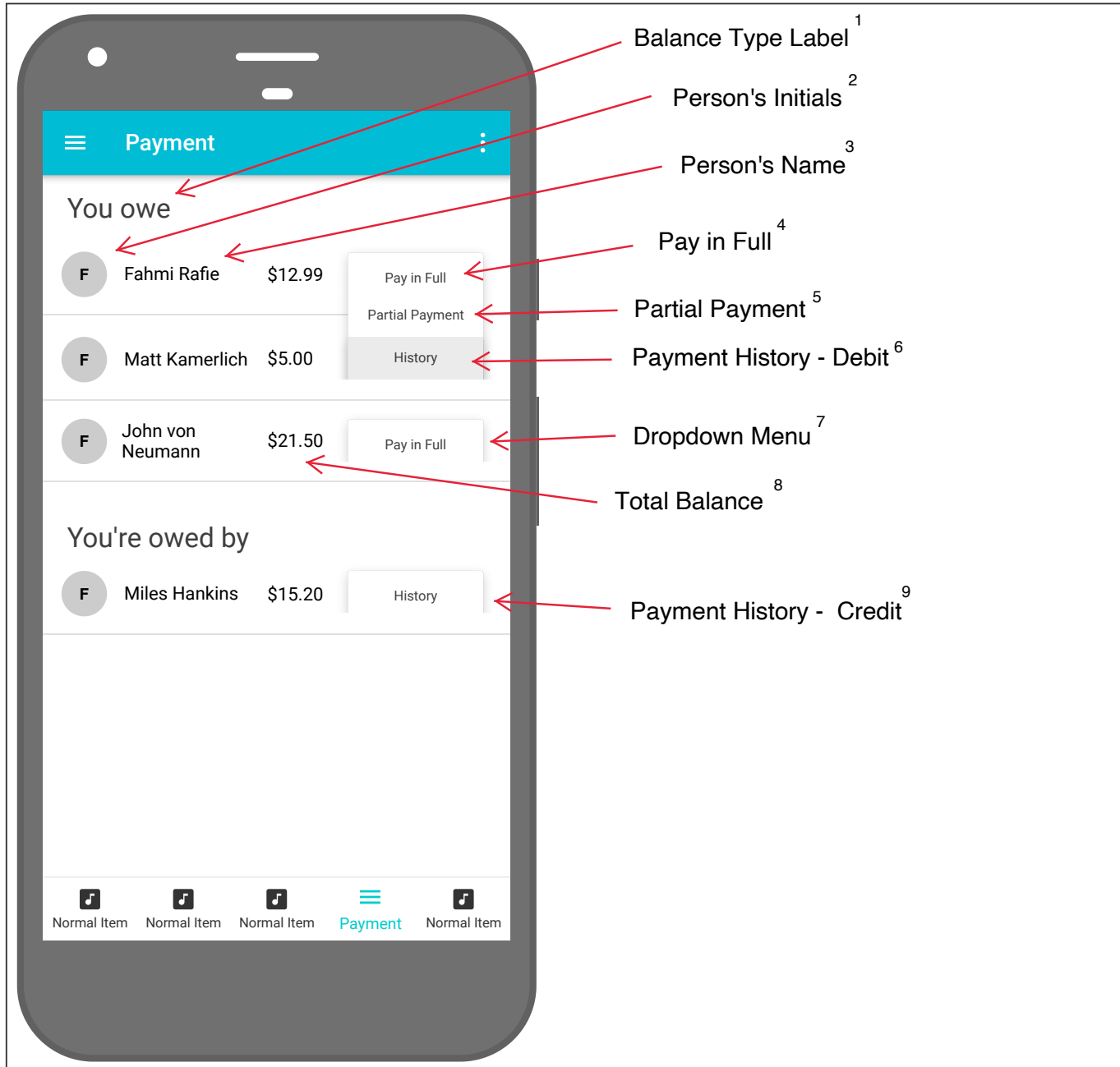
Price (4)

Remove Item Button (5)

Page for individual items added to the grocery list. This is from a non-list admins perspective, the admin would be would be able to change the parameters (2,3, and 4). The user can leave the page by either saving or pressing the x button found on the page header (1). The requested by parameter(2) would default to whoever added the item to the list, the purchased by parameter(3) is for marking it off the list and keeping track of who purchased it, and the price(4) is for price calculation purposes. The remove from list button (5) would ask for confirmation, before removing the item from the list.

Miles

Group Name (1)

Added Group Member (2)

Create New Group

Label

New Group

Group Name

Fahmi   **Remove**

K   **Add New User**   +

Add New User Button (3)

Group Setting (4)

Create Group (5)

Group Settings   **Create Group**

Normal Item   Active Item   Normal Item   Normal Item   Normal Item

The "Create New Group" page would allow a user to create their own new grocery list group. They can name the group using the Group Name (1) input box, see a list of the users they have selected to add the group(2), with the ability to remove them by pressing the red remove button, as well as add new users (3), which would redirect to a page similar to the invite user page to allow them to select a new member. They can alter the group's settings by clicking the group setting button(4), which would bring them to the list config page. Finally, when they are finished selecting members of the group they can finalize the creation of the group by clicking the Create Group button(5).

Expiration Dates

Add

1. Add Item

Search

2. Search Item

2/13/2021

Eggs ⊖

Milk ⊖

2/17/2021

Lettuce ⊖

3. Items and Expirations

4. Calendar View

This is the expiration screen. Here, users can see what items in their fridge are close to expiring, and how soon. It both stores purchased items from lists and individually added items. 1. The "Add" button opens a modal that allows you to add an item, an expiration date, and associate it with a list. 2. The search bar allows users to search for specific items that have expiration dates. 3. The table, by default, sorts expiring items by dates. The date is red if it is current/already passed and black if it has yet to come. An item can be removed from the list by pressing the minus button. 4. The calendar button at the bottom can be selected to expand a calendar that displays red dots on dates with expiring items. Clicking on that day will display items expiring on it.

Fahmi Rafie

Balance Type Label [1]

Person's Initials [2]

Person's Name [3]

Pay in Full [4]

Partial Payment [5]

Payment History - Debit [6]

Dropdown Menu [7]

Total Balance [8]

Payment History - Credit [9]

The payment screen shows the balance that the user has with other users. And the balance type (1) divides into credit or debit balance (the user is owed by another person/the user owes another person). Each person contains the creditor's/debtor's initials (2), name (3), and the total outstanding balance (8). The "You Owe" balance has a dropdown menu (7) for every person that user owes to, and the menu allows the user to pay in full (4), make a partial payment (5), or see payment history (6). Note: The "You're Owed By" balance only has a payment history button (9) for every person that owes the user.