Summary of the app, its main features and purpose

Credits: Greene

The name of the app is SuperVend. It is an app created for users to purchase items online and receive them from the nearest vending machine. The main features of the app include a splash screen, onboarding, a list of products, details of each product, the ability to view and add reviews for each product, as well as adding and viewing shopping cart. Minor features include signing up, viewing description, changing number of columns in list, and switching between light and dark mode.

Documentation of App

Splash Screen
The SuperVend logo and text moves into the center of the screen from the top and bottom respectively. The logo is a gif where the colors change.

Onboarding
Onboarding opens once for first-time users. It gives a short introduction to SuperVend and some simple guidance in purchasing products.

Main Activity

- CollapsingToolbar
  - The backdrop of the collapsing toolbar is the same logo gif image. The toolbar collapses when the user scrolls down. The SuperVend title rises and shrinks.
- Shopping Cart Floating Action Button (FAB)
  - This FAB is used to open CartActivity. It shows a Snackbar saying, "Opening Shopping Cart".
- Menu
  - Sign Up
    - Sign up shows up in the toolbar if there is space. On tap, a new Sign Up Activity appears.
    - The user is prompted to enter the username, password, and confirmation of password. Relevant checks were implemented and suitable error AlertDialogs will show up.
    - The user is then able to sign up with a click of the button. A success AlertDialog will show up and will send the user back to the Main Activity.
  - Description
    - A simple description of SuperVend will show up in the form of an AlertDialog.
  - Contact Information
    - An AlertDialog will show up containing the phone number and email of SuperVend (both are fake).

- When the user taps on the phone number TextView, the phone number will be copied to the clipboard and the user will be taken to their default calling app.
- Similarly, when the user taps on the email TextView, the email will be copied to the clipboard and their default mailing app will be opened with prefilled details.
    - o Columns
        - The user is able to change the number of columns in the RecyclerView. By turning the NumberPicker in the AlertDialog and confirming the change, the number of columns will change accordingly.
        - A maximum of 2 columns is allowed in portrait mode while 3 is allowed in landscape mode.
        - Columns settings are saved in SharedPreferences. If you close the app and relaunch it, the number of columns stays the same.
    - o Mode
        - The mode switches between light and dark.
        - Mode is saved in SharedPreferences. If you close the app and relaunch it, it should be the same mode as the last time you opened the app.
- RecyclerView
    - o The list of items is displayed as cards here. Some details are shown in the card such as the product name, the price, and the mass. By tapping on the cards, the ItemActivity launches.

Item Activity

- CollapsingToolbar
    - o The backdrop is customized to display the product image.
- Details
    - o The name, price, mass, brand, and description are displayed here.
- Add to Cart Button
    - o A toast will show up informing the user that the item has been added to the shopping cart.
- Reviews
    - o FAB launches the ReviewActivity
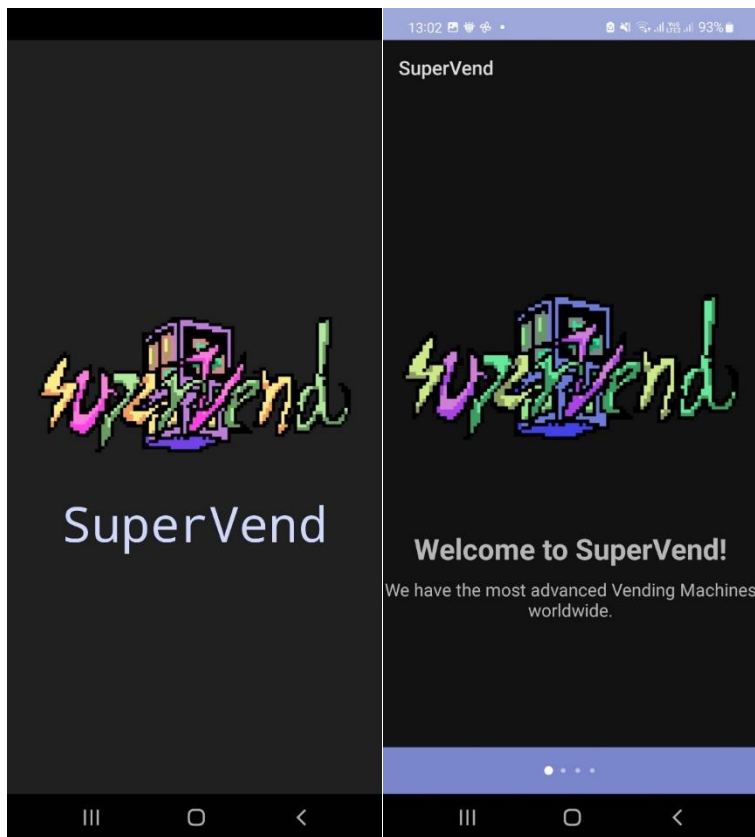   - o Average rating shown under FAB

Reviews Activity

- ListView
    - o Displays a list of reviews. The reviews contain the profile picture, name, rating, and comment of the reviewer.
- Add Review FAB
    - o Shows a AlertDialog which allows the user to add their comment on the product and give a rating. The review will then appear in the ListView. The profile picture is set to be the default anonymous image while the name is set by default to "Anonymous (You)".
- SharedPreferences
    - o SharedPreferences is used to store reviews data, so even if you close the app and reopen it, your review will stay there.
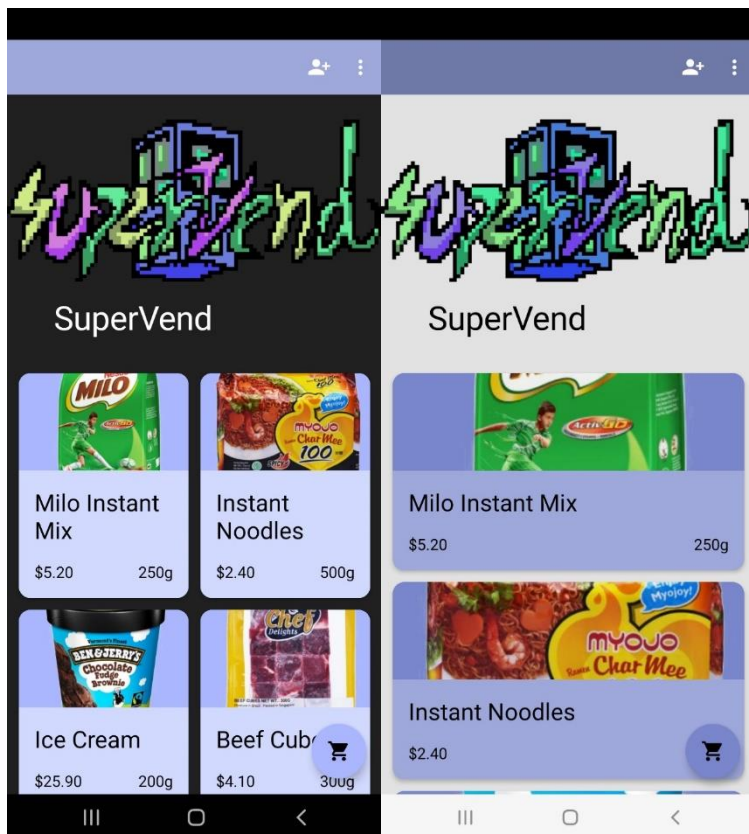
<u>Cart Activity</u>

- RecyclerView
  - The list of items in the shopping cart are displayed as cards. Some details are shown in the card such as the product image, product name, and quantity of products in the cart.
  - Swiping right on the card increases the amount of items in the cart (10 changes to 11.)
  - Swiping left of the card decreases the amount of items in the cart (10 changes to 9.)
    - If there are no more items of that product in the cart, the card of that product is removed.
  - Long click on the card activates multiple selection mode, you can select multiple items to be deleted using a Delete button in the menu.
  - SharedPreferences saves the contents of the shopping cart, if you close and reopen the app the same items are in the shopping cart.
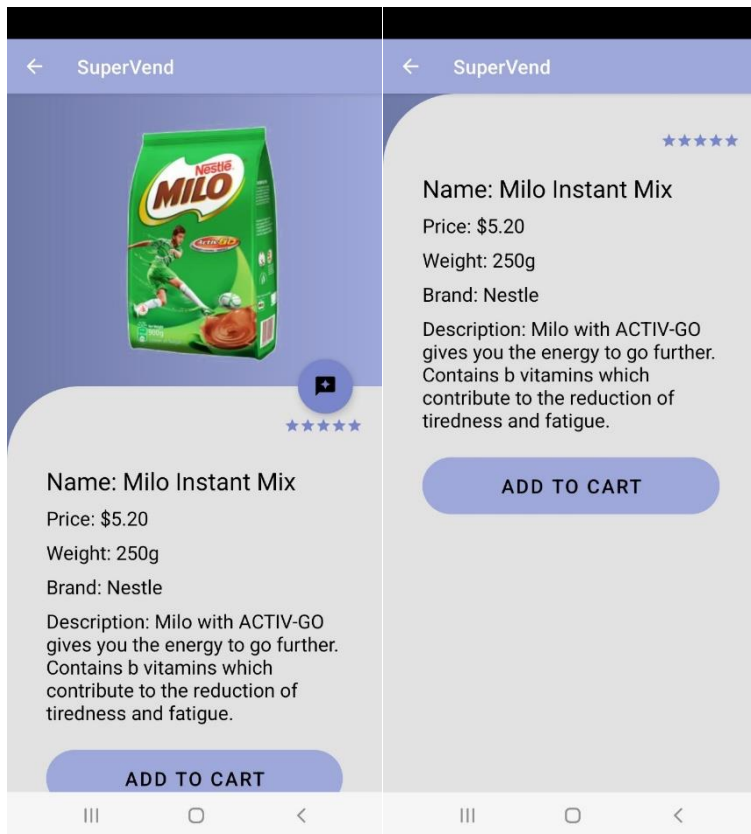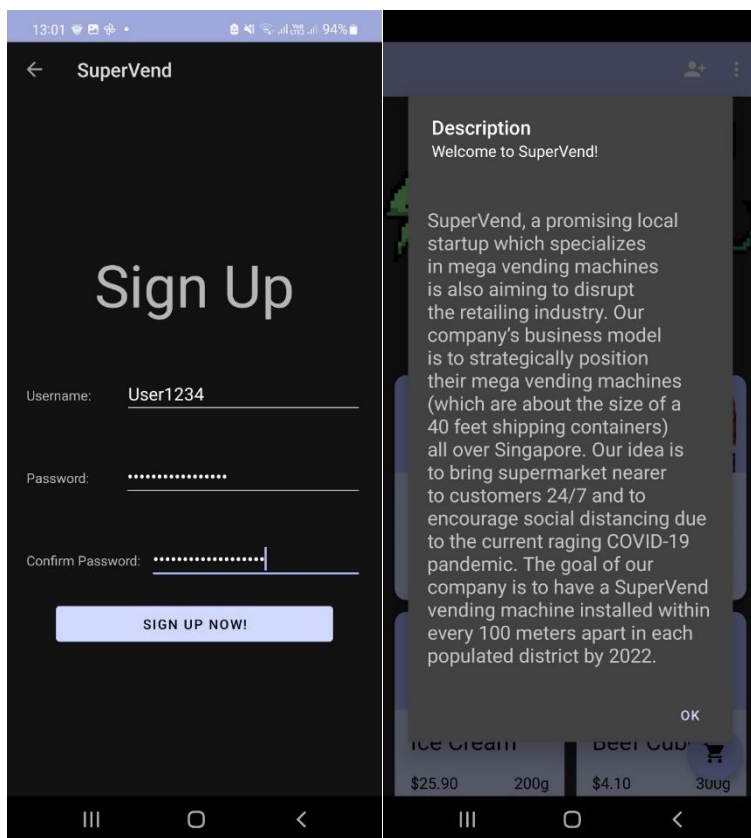
User Documentation

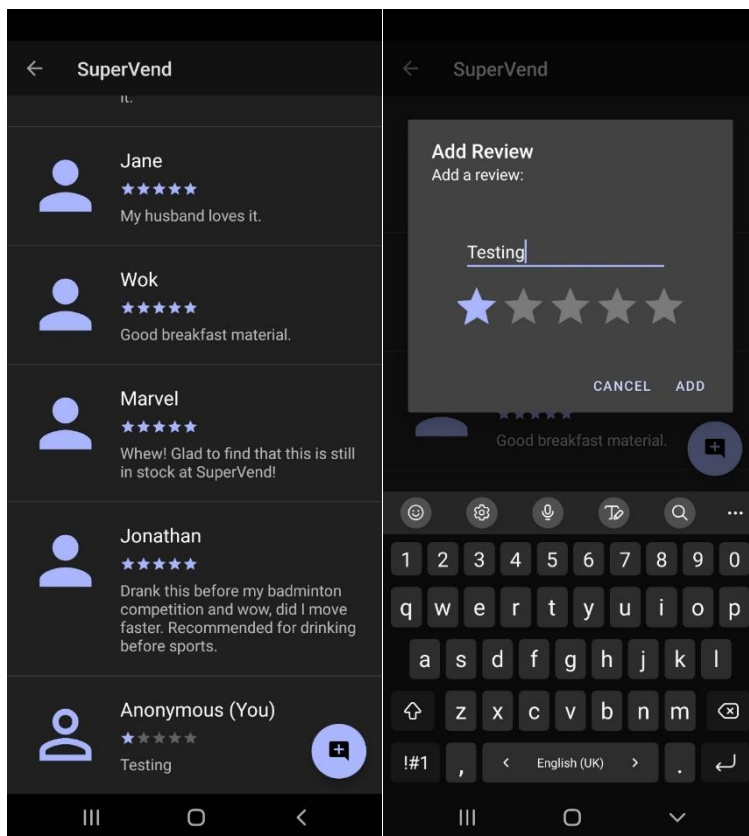

Splash Screen and Onboarding

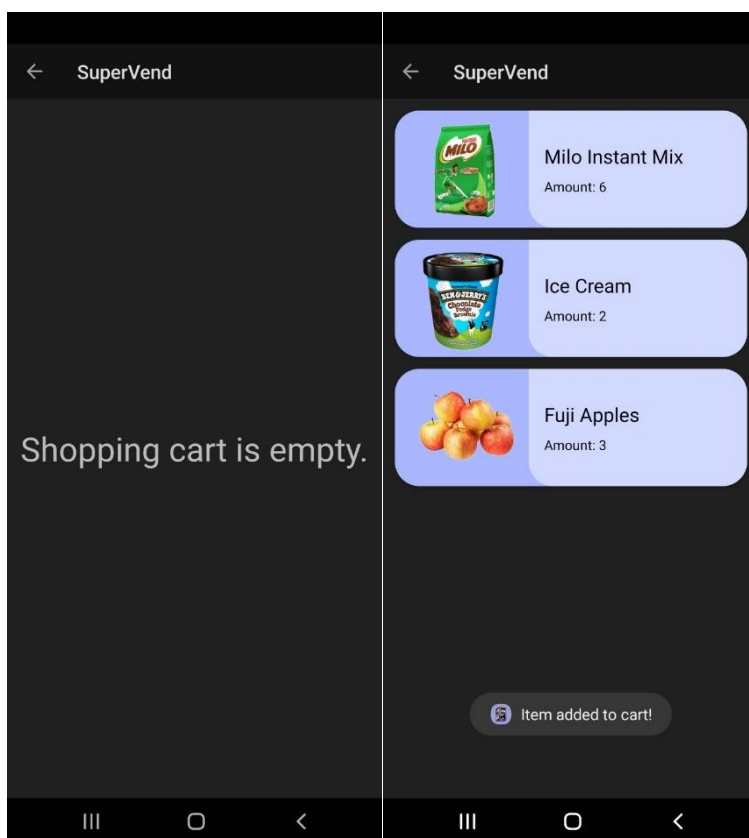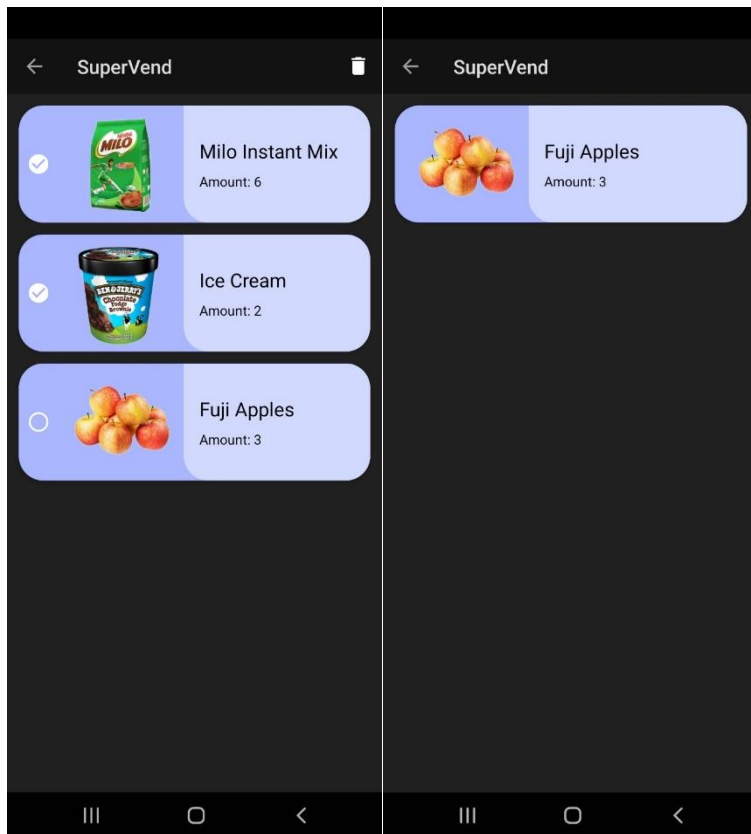Main activity (different columns and different modes)

Item Activity

Sign up and description

Review activity and adding review

Shopping cart before and after items are added

Shopping cart multi-select and removed milo and ice cream from cart.

Individual reflections

<u>Greene</u>
I gained a lot of experience from creating this app. Mostly, I was impressed by Yuebin and learnt a lot from him. Firstly, I managed to upload the code to GitHub, a medium we used to work together. I became capable of fetching, committing, and pushing. I also learnt to use various layouts such as AlertDialog and FAB better. Moreover, I gained more knowledge in passing data between Activities, Fragments and Adapters. On the other hand, I found picking and implementing the colors quite challenging as the colors do not match our expectations. In the end, we got help from https://material.io/resources/color/ and successfully chose reasonable colors. Making the shopping cart was also difficult and I am glad that I was able to make the multiselect function and swiping function. However, I planned to have a red and green background when swiping left and right respectively but could not implement it due to its difficulty.

<u>Yuebin</u>
I had a lot of fun (and pain) making this app. Firstly I want to thank Greene for coming up with new and innovative ideas to incorporate into the app such as the use of a GIF for the collapsing toolbar and splash screen instead of the standard ImageView. My biggest takeaway from this project was how to use GitHub and git for version control, and consequently how to develop software in a team setting. A challenge I faced during this was how to save data during runtime using SharedPreferences (SP). SP limited us to only save primitive data types (Integer, Boolean, Float, String) so I had to somehow save a Review object and a CartItem project into SP efficiently so that it is easily retrievable and easy to edit. To overcome this, we used different SPs for Settings, Reviews and Cart, each object is split into its primitive variables and labeled as the objects' unique name / index to be saved in the SP for ease of extraction.