CONSISTENCY RULES
- Atomic: No "AND" allowed.
- Testable: All requirements must be passable or failable!
- Use "IF X, THEN Y", not "Y IF X".
- Use "MUST", not "SHALL".
- Use "LET THE USER", not "ALLOW THE USER TO".
- Use "X OR MORE", not "MORE THAN X".
- Use "ENSURE", not "REJECT".
- Only use sub-requirements when it depends on its parent requirement. Try to avoid sub-requirements unless absolutely necessary.
- Headers must be of a noun (e.g. "ACCOUNTS", not "CREATING ACCOUNTS").

ACCOUNTS
1. The system must let the user sign up using a Google Account.
2. Password should have a minimum length of 8 characters containing at least a capital letter and a number.
3. If signed out, the system must let the user sign in using a Google Account.
4. If signed in, the system must let the user sign out.
5. The system must ensure that each account is connected to one Google Account exclusively.
6. Each time users access the app users will be prompted to log in and enter their password.

HOME LOCATIONS
7. The system must ask the user to set a Home Location when signing up.
8. If signed in, the system must let the user edit their Home Location.
9. The system must use the Google Maps API to show a map that lets users set a Home Location.
10. The system must use the user's GPS location to suggest an initial Home Location.
11. The system must ensure that all Home Locations are within Singapore.

ADDRESSES
12. The system must let the user copy any address.
13. The system must let the user open any address in an external map application.

PRODUCTS
14. The system must let the user search all products.
15. The system must sort product search results based on the number of keywords matched.
16. The system must let the user filter product search results to only contain products that they are currently selling.
17. The system must let the user view a product's picture.
18. The system must let the user view a product's name.
19. The system must let the user view a product's description.
20. The system must let the user view a product's seller's name.
21. The system must let the user view a product's queue information.

22.   If the product has Show Seller Home Location enabled, the system must let the user view a product's seller's Home Location, using a map rendered by the Google Maps API.
23.   If the product has Show Seller Home Location enabled, the system must let the user view a product's seller's Home Location, using an address.
24.   If signed in, the system must let the user add a product.
25.   If signed in, the system must let the user remove a product they are selling.
26.   The system must let the user cancel or confirm the removal of a product.
27.   If signed in, the system must let the user edit a product they are selling.
28.   The system must ensure that all products' pictures are 4000 pixels wide or less.
29.   The system must ensure that all products' pictures are 4000 pixels tall or less.
30.   The system must ensure that all products' pictures are 100 pixels wide or more.
31.   The system must ensure that all products' pictures are 100 pixels tall or more.
32.   The system must ensure that all products' names are 100 Unicode characters long or less.
33.   The system must ensure that all products' names are 5 Unicode characters long or more.
34.   The system must ensure that all products' descriptions are 10,000 Unicode characters long or less.
35.   The system must ensure that all products' descriptions are 50 Unicode characters long or more.

QUEUES
36.   Each product can only have exactly 1 queue.
37.   Each queue can have multiple price thresholds.
38.   The system must let the user view a queue's
    38.1.   Thresholds, showing users the number of buyers to reach that threshold and its corresponding product's unit price.
    38.2.   Remaining duration
    38.3.   Total units of that product available
39.   If signed in, the system must let buyers join any product's queue.
40.   Sellers are not allowed to join their own product's queue.
41.   For each product, the more buyers needed to reach a threshold, the lower the product's unit price gets for that threshold.
42.   Once a queue's duration is over, the queue closes and no longer accepts buyers.
43.   Once a product's total buyers reach the total units of that product available, the queue no longer accpets new buyers, unless existing buyers drop the product within the queue's duration.
44.   The seller can change all his products' queue duration anytime before the queue is closed.
45.   Buyers can drop the product and leave its queue anytime before its queue closes.
46.   The system must ensure that all queues' unit price is at least $0.01.
47.   The system must ensure that all queues' initial remaining times are 1 hour or more.

GROUP CHATS
48.   Once a product receives at least 1 buyer, a group chat for that particular product is created.

49. Once a group chat for a product is created, all existing buyers and the seller of that particular product is added into the group chat.
50. Once a group chat for a product is created, during the duration that product's queue is open, new buyers will be automatically added into the group chat.
51. If signed in, the system must let the user to view all group chats they are in.
    51.1. The system must let the user to select a Group Chat to view.
    51.2. The system must let buyers to leave a product's Group Chat, if they have dropped the product or once the queue is closed.
    51.3. Once all buyers have left a Group Chat, the Group Chat is automatically closed.
    51.4. The system must show the Group Chat's participants.
        51.4.1. The system must distinguish which participant is the seller.
        51.4.2. The system must distinguish which participants are buyers who opt to be distributors (with a distributor badge).
    51.5. The system must show the Group Chat's messages.
        51.5.1. The system must sort the messages from newest to oldest.
        51.5.2. The system must show the messages' senders' names.
    51.6. The system must let the user to send a text message.
        51.6.1. The system can only accept a text that has a length between 1 and 1000.
    51.7. The system must let the user to send a picture message.
        51.7.1. The system must access the user's image gallery.
        51.7.2. The system can only accept pictures that is 4000 pixels wide or more, and 4000 pixels tall or more.
    51.8. The system must let the user to view the Group Chat's Map.
    51.9. If the system is signed into a Seller Account, and the Seller owns the Group Chat's product, the system must let the user to close the Group Chat once its queue closes.

GROUP MAPS
52. If a user is in a Group Chat, the system must let the user to view a map of all the product's buyers and seller.
    52.1. Each user's home location is represented by pins.
        52.1.1. These pins will be differentiated by color to represent the 4 types of users below
            52.1.1.1. Seller
            52.1.1.2. Buyers
            52.1.1.3. Non-buyers - users who were previously buyers of the product, but have dropped it before the queue closes
        52.1.2. The system must show the full address upon selecting the pin.
        52.1.3. Each pin must be anonymised and must not showing the buyer's name.