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# **Heuristic Evaluation of Flutter**

#### 1. Problem

Flutter is an app that allows you to give away items to and claim items from acquaintances in established groups.

### 2. Violations Found

# H1) Visibility of system status

# 1) Severity 2 / Found by: A

When Higgs (the user) marks an item as gifted, the icon for the item becomes blue and the date is noted. While the date might be useful for some, it doesn't exactly list the status of the item: "Gifted." Fix: Add the word "Gifted" somewhere, or a separate list entirely for gifted items, since the item doesn't matter anymore.

### 2) Severity 3 / Found by: A

When I say "Yes, please!" to claim an item, it's unclear whether another person also claimed that item an hour before me. I know I could text them and find out, but it might be a system status to include. Fix: "1 person claimed an hour ago"

# 3) Severity 2 / Found by: A

Sorry to keep harping on the contact Amy panel. I think it might be useful to continue listing which group Amy is from. If I want to text her, I could be like "Hey, it's me, from WiCS!" and I wouldn't have to go back to the previous panel to remember this information. Fix: keep the nice "#AMY #WiCS" heading from the previous panel where she talks about the shampoo

### 4) Severity 2 / Found by: A, C

After filling out "Gift Item" and clicking the check mark, I do not know where the page will take me. Fix: Mark the check mark green, or take me to the feed page, or show another option to add a gift.

# 5) Severity 3 / Found by: A

On my profile panel, if I click on the Socks item that I've previously posted, I have no way of setting what my description was, what I titled my post, or what other photos I might have added (if that's a feature that will be added in the future). I wish there were a way to edit my posting instead of only having the option to Mark As Gifted. Fix: Add a panel for being able to edit an added item. This is similar to a previous violation in the list about being able to remove an item, but specific to actually editing the content. Their fixes could probably be consolidated.

## H2: Match Sys & World

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### 1) Severity 2 / Found by: A

The Feed uses a hashtag for the name of a person posting an item. (i.e. #AMY). I think this might be confusing to people because hashtags are typically used to indicate general topics versus a human being. I like the style, though it might be confusing at first. Fix: Just use people's names (i.e. Amy)

## **H3: Sys Control**

### 1) Severity 3 / Found by: B

If the user accidentally makes a duplicate group, joins a group, or simply wants to leave the group, there isn't an option to delete or modify a group. Fix: Allow the user to delete by swiping the selected group, and allowing customization within a preexisting group

# 2) Severity 3 / Found by: C, A

The user doesn't have the option to undo the option to mark as a gift. Fix: Add an undo option immediately after the "do" action.

# 3) Severity 2 / Found by: C, A

The user doesn't have the freedom to choose which contact information to disclose. Fix: Add an option on the profile page to show what to disclose or not.

More on that, from A: In a similar vein, for the same Profile Settings panel, will I soon have the option to integrate my Facebook? Or can my preferred method of contact be a checkbox option for the Add Item panel instead of me having to say it explicitly? Fix: Make the "Preferred method of contact" process a little clearer by either 1) Adding options to integrate Facebook messenger within that Add Item panel if I haven't already, or 2) keeping those preferences unique to the Profile Settings panel.

### 4) Severity 2 / Found by: A

In the Settings panel for the profile tab, I don't have the option to change my profile picture. :( Fix: Add a small "Edit" option near the profile photo in Settings.

### H4: Consistency

#### 1) Severity 4 / Found by: B

Under Higg's profile and settings, he seems to have his own "profile picture" or avatar. However, I can't find any avatar picture for Higg's friends, like Amy or Eve. If I had a couple of friends named Amy, it would be challenging to identify each one without a picture reference. Fix: Add a small, circular avatar like Higg's that shows their picture on feed and groups. A potential place for this avatar could be on the top right corner of each card (right side of the name)

# 2) Severity 3/ Found by: B

On the feed screen, Amy has 2 hashtags, one indicating that she belongs to the WiCS group, the other being her name (or username). If username represents hashtag, then the WiCS group should be highlighted or represented in a different way. For example, in CSS code, a class is given properties with a (.), but for a particular object, you use a (#). Fix: Have a different way of showing which group a user belongs to. If your username is a #hashtag, then perhaps use a .period to represent their group or

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simply a dot with the color of the group.

### 3) Severity 1 / Found by: C

On the profile page, when I click on the item, the #Higgs hashtag turns into the user's name for no apparent reason. Fix: don't make it do that.

## 4) Severity 2 / Found by: C

There isn't a proper labeling that shows the items on the profile page are the user's or what the user's got from other users. Fix: Add a tab in the profile page that could help the user toggle between the items you put out and the items you received-- as a history button.

### **H5: Error Prevention**

### 1) Severity 2 / Found by: B

If each unique username is represented by the hashtag, it's important to keep in mind what happens when we have really long usernames, and how that will look on the screen. Right now, it doesn't seem like you're able to see someone's first and last name, for the sake of easily identifying your friends with a same first name. Fix: Show their first and last initial, as opposed to their chosen username. This way, the name shown is still relatively short, but it's not confusing or won't affect the UI of the app.

#### 2) Severity 3 / Found by: C

When the user clicks on the + button on the menu, the user can add items, but she doesn't know which group to add to. Fix: Add an option to put in a certain group.

## 3) Severity 3 / Found by: C

There is not a log out button. Fix: add a logout button from settings in profile page

### H6: Recognition, not recall

### 1) Severity 2/ Found by: B

I couldn't find the date each item was posted, and it is not very clear whether these items are still available or not. A date could be a measuring factor of how long the item has been unclaimed for and can incentivize people to claim the object Fix: Add a simple text that shows when the user posted the object. i.e "last updated: 11/02/18"

### 2) Severity 2/ Found by: B

When you want to contact someone, we are given the option to contact them through Facebook or reach out to them via phone. If I want to contact them through phone, I have to memorize the person's number, then go to my contacts, and then add the person. The chances of becoming discouraged throughout the process are much higher when I can't contact someone right away. Fix: Have a hyperlink that allows quick messaging to the person, or have a messaging icon instead of showing the number for a more appealing and cohesive design.

#### 3) Severity 2 / Found by: A

When I say "Yes, please!" to claim an item, I'm taken to a modal with the phone number and an option to connect through the Facebook app. It might be nice to also include an option for Messenger, since

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the user won't have to remember the name, then switch to Messenger, and type the name. Even if the user has the Facebook app, when you click on Messenger in that app, it takes you to the Messenger app. Fix: It probably makes sense to make the phone number first, then the icon for Messenger, which

looks like . That's the last time I'm saying Messenger in my life.

# 4) Severity 2 / Found by: C

At the home page, the search bar doesn't hint at what to type--whether to type hashtags or the item name etc...Fix: Add a translucent example on the search bar.

## 5) Severity 1/ Found by: C

The "+" button arrives at "Gift Item" page, but I think this description is hard to understand, as it may or may not be signalling an action from the user. Fix: change the description to "Add gift item" or the like.

# H7: Efficiency of Use

### 1) Severity 3/ Found by: B

There's a search button on the feed, but it's not clear of whether there is a current way of grouping objects. The way the screen is set up, it looks like you can search by name. What if the user wanted to search by kind of object? (i.e. jewelry, decor, etc) Are both types of search supported? Fix: Have a more explicit grouping mechanism on the feed screen, which could also potentially eliminate the need of having a search button (and thus becoming more dynamic) For instance, if you had jewelry objects, you can feature and place them as a group, and the jewerly objects can be viewed as a carousel.

### 2) Severity 2 / Found by: C

When the user clicks on an item, the user has to call or contact through fb. Fix: This process can be easily circumvented if the app chooses a safe and public place to meet up between them. OR it can be chosen by the gift-giver to meet at a certain public place.

### 3) Severity 2 / Found by: C

On the profile page, the user has to click on the item to click "mark as gifted". Fix: As there is only one option anyway, have the user "mark as gifted" on the same profile page with a single click rather two.

## H8: Minimalist design

### 1) Severity 1/ Found by: B

When you go to a group's page, from the entries given, it seems like it wouldn't be likely that your screen will be filled with thousands of groups to the point that you need a search bar. There's not a lot of visuals on this page compared to the other screens. Fix: Remove the search bar to have more space for groups, and instead implement scrolling. Because there'd be more space, you can show your friend's icons for each group to keep aesthetic standards and make it more interactive.

#### 2) Severity 1/ Found by: B, A

When creating a group, some of the text seems unnecessary. Because there is not a privacy

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documentation for the app yet, knowing whether "a group color is seen by all members" is needed on the app brings my attention. It doesn't look like a chosen group color could severely impact the privacy or reaction of users. Fix: Remove the "will be seen by all members" text, and suggest simplifying invite text to "invite friends via SMS"

### 3) Severity 2 / Found by: C

On the group page, the thin colored lines do not immediately signify that those colors correspond to the groups. Fix: Instead of putting it on the bottom, incorporate more into the texts.

# 4) Severity 2 / Found by: A

On that same contact panel to reach Amy for her Shampoo, the "OR CONNECT" kind of stands out, and I'm not sure it's necessary. Usually when we want to share a photo in Photos, we click on "Share," and we get to choose from an array of icons for iMessage, Messenger, Email, etc. Fix: I think it might be nice to follow a similar design of large icons to choose from, all in a row, versus this line-by-line design which I feel is somehow uneven.

## H9: Help Users with Errors

### 1) Severity 2 / Found by: B

When you want to reach out to someone, if there was a hyperlink to the phone number, often times iPhone dials the number, an unwanted action. Sometimes finding the right message/thing to say is the most difficult thing to bring in reaching out to someone. Fix: Some way to prevent users from accidentally calling or not knowing what to text is having predrafted messages (like LinkedIn) that would be a quick conversation starter the moment you want to reach out to them via SMS.

### 2) Severity 3 / Found by: C

The login interface has a button for "forgot password", but doesn't have one for username/email. Fix: Add "forgot username"

#### H10: Documentation

# 1) Severity 2 / Found by: C

There isn't a proper labelling that shows the items on the profile page are the user's or what the user's got from other users. Fix: add a separate page for your items and/or group the items into a category

### 3. Summary of Violations

Category	# Viol.					
	(sev 0)	(sev 1)	(sev 2)	(sev 3)	(sev 4)	(total)
H1: Visibility of Status (6)	0	0	3	2	0	5
H2: Match Sys & World	0	0	1	0	0	1
H3: User Control	0	0	2	2	0	4
H4: Consistency	0	1	1	1	1	4
H5: Error Prevention	0	0	1	2	0	3

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H6: Recognition not Recall	0	1	4	0	0	5
H7: Efficiency of Use	0	0	2	1	0	3
H8: Minimalist Design	0	2	2	0	0	4
H9: Help Users with Errors	0	0	1	1	0	2
H10: Documentation	0	0	1	0	0	1
Total Violations by Severity	0	4	18	9	1	32
Note: check your answer for the green box by making sure the sum of the last column is equal to the sum of the last row (not including the green box)						

#### 4. Evaluation Statistics

Severity /	Evaluator	Evaluator B	Evaluator C	Evaluator D
Evaluator	Α			
sev. 0	0	0	0	Fabian is
				taking an L
sev. 1	1	3	2	
sev. 2	8	4	8	
sev. 3	3	2	5	
sev. 4	0	1	0	
total (sev. 3 & 4)	3	3		
			5	
total	12	10	15	
(all severity levels)				

<sup>\*</sup>Note that the bottom rows are *not* calculated by adding the numbers above it.

## **5. Summary Recommendations**

#### Evaluator A:

I liked the pictures that you used, of silly socks and Mr. Snuggles. I liked that the profile was of the Higgs Boson. I think this cutesy vibe you got going on could be emphasized. I feel like in your initial prototype, there was a lot more detail about blue, cloudy images and maps; I don't know how to describe it, but I kinda miss that specific aesthetic.

I guess my main suggestion is to add more, which you're going to do anyway. Add more labels to your search bar, to your profile, to an item, and don't be afraid to bring back the unique style you had coming into this medium-fi prototype phase.

#### Evaluator B:

The main issues with the user interface of this app were primarily those targeting user freedom and the consistency between pages. Perhaps this is because Flutter has only released a single medium-fi prototype, but I wish I had the ability to modify certain aspects of my existing friend groups, especially since this is the complex task of the application. For instance, adding a new member, deleting something within the group, etc. Speaking more broadly, the user interfaced could be improved in

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different ways. The format in which you've chosen to display usernames is very modern, but keep in mind that the app will most likely scale and might not fit the #short hashtag scenario. I'd also look more closely into the buttons you've chosen in the "gifting item" tab. Make sure your icons, like the check and camera, are proportionally sized and that they're also correctly aligned. Overall, I really like the simplicity of the app and it does appeal to the user-friendliness scheme. Fabulous job!

### Evaluator C:

Overall, the interface design could be improved. The black and white design doesn't give off the feeling of giving away and receiving sentimental objects back and forth. While the design was very minimalistic, it seemed to take away from the overall functionality of the application and even the aesthetics was compromised. There were many functions that were lacking in the med-fi prototype such as the re-do/un-do options, logging out option, and adding an item to a certain group. There existed certain aspects of the app that could be improved in terms of efficiency in navigating through the app (marking an item as gifted) and setting up a location to carry out the transactions. What I found to be essential but the app didn't include was the history page. If any items had any sentimental value to a user, it would be paramount to keep a record of the items that were given and received. The records should also be easily accessible. In summary, I believe the simpler tasks (giving and receiving items) were well carried out, but the complex task of supporting an emotional/sentimental transaction could use some work. This particular task could be carried out by improvements in design and colors scheme rather than functionalities.

### **Severity Ratings**

- 0 don't agree that this is a usability problem
- 1 cosmetic problem
- 2 minor usability problem
- 3 major usability problem; important to fix
- 4 usability catastrophe; imperative to fix

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#### Heuristics

H1: Visibility of System Status

• Keep users informed about what is going on

H2: Match Between System & Real World

- Speak the users' language
- Follow real world conventions

H3: User Control & Freedom

- "Exits" for mistaken choices, undo, redo
- Don't force down fixed paths

H4: Consistency & Standards

H5: Error Prevention

H6: Recognition Rather Than Recall

• Make objects, actions, options, & directions visible or easily retrievable

H7: Flexibility & Efficiency of Use

- Accelerators for experts (e.g., gestures, kb shortcuts)
- Allow users to tailor frequent actions (e.g., macros)

H8: Aesthetic & Minimalist Design

• No irrelevant information in dialogues

H9: Help Users Recognize, Diagnose, & Recover from Errors

- Error messages in plain language
- Precisely indicate the problem
- Constructively suggest a solution

### H10: Help & Documentation

- Easy to search
- Focused on the user's task
- List concrete steps to carry out
- Not too large