Heuristic Evaluation of [2Fit]

1. Problem/Prototype

2Fit is an app that seeks to connect individuals to other compatible individuals based on physical training goals, physical ability, and schedule availability.

2. Violations Found

1. H1-1: Visibility of Systems / Severity 3 / Found by: D

Problem / Violation Reasoning: On the events frame, there currently is no way to keep track of the workouts you've been invited to but did not want to join. This is a violation because users are left to wonder if they are forcibly joined or how to track people you invited and see when they have accepted.

Fix: Implement a pending notifications features that allows users to see important information like who invited them to a workout.

2. H1-2: Visibility of System Status/ Severity 3/ Found by: B

The app informs the user that it has been added to the calendar, but not that this is an external calendar or how this is being factored into their availability. Users may question if they are allowed to match with multiple buddies or if they availability has to be manually updated.

Fix: Provide a pop-up box which gives a message that says the event is being added to their (google, apple ect.) calendar, their availability of the app is being updated and they are still able to match with other buddies.

3. H1-3: Visibility of System Status / Severity 2 / Found by: B

When I click match with Sam G it gives me a message that says pending. However, I do not know what I am pending for or how long I will be waiting for it is unclear if I am pending for response or for the algorithm. In addition, I am given no information on how long I should wait or how I will know there is a match. This may lead me to remain on this page waiting for a response that may never come.

Fix: Provide users with pop-up that indicates they are pending for Sam to click match as well. Also provide a time limit for which the potential match will expire. Ex. if after a week Sam has not matched with me, Sam will be removed from my screen of asks.

4. H1-4: Visibility of System Status / Severity 3 / Found by: B

The app informs the user that it has been added to the calendar, but not that this is an external calendar or how this is being factored into their availability. Users may question if they are allowed to match with multiple buddies or if they availability has

to be manually updated. **Fix**: Provide a pop-up box which gives a message that says the event is being added to their (google, apple ect.) calendar, their availability of the app is being updated and they are still able to match with other buddies.

- 5. H1-5: Visibility of system status/ Severity 1 / Found by: A No confirmation that the filter has been applied.
 Fix: confirmation page
- 6. H2-1: Match Between System and Real World / Severity 2 / Found by: D Problem / Violation Reasoning: On the discovery frame, there is a profile dimension known as personality that lists "fanatic" without any context. This is a violation because users could be confused at what personality means or what fanatic means in relation to the app.

Fix: I would add an information screen explaining the values personality can take on and what they mean or instead, use frequency or intensity of working out as a measure.

- 7. H2-2: Match Between System and Real World / Severity 2 / Found by: D Problem / Violation Reasoning: On the friends frame, the term used for friends is myBuddies rather than buddies or friends. This is a violation because users are left to wonder if this is an intentional term of the app's language (if so, then it should be explained) or if it is just a type and should read "my buddies" like the title of the frame. Fix: Change "myBuddies" to "my buddies".
- 8. H2-3: Match Between System and Real World / Severity 1 / Found by: D Problem / Violation Reasoning: On the scheduler window, the slots that you indicate are available for you are gray. This is a violation because typically, gray to us signifies "null", "unavailable", or "not in service", indicating a mismatch in the way interpret gray and the way it is used.

Fix: Use a light shade of orange to indicate your availability and dark orange to signify a time match.

9. H2-4: Match Between System and Real World / Severity 1 / Found by: D Problem / Violation Reasoning: The profile navigation tab is one the left-most, first icon on the navigation bar. This is a violation because typically, we see profile tabs on the very right because they are not the main function of the apps we use but rather peripheral. In this case, the main function of the app should be the match page first. Fix: Move the profile tab to the right and have the discovery page be first.

10. H2-5: Match Between System and Real World / Severity 1 / Found by: D

Problem / Violation Reasoning: On the message screen, the message that you send is gray / white, but typically, we are used to the message that you send as a color (e.g blue / green) while the recipients messages are white / gray, e.g: Facebook and iMessage. This is a violation because it misaligns with our typical UI expectations for messaging.

Fix: Make your outgoing messages a main color and your receiving messages a gray color.

11. H2-6: Match between system and the real world/ Severity 3 / Found by: A

The connect button on profiles is situated before all the information, should be after, so the user doesn't have to double back in how they digest the page info. Fix: Move the connect button to the bottom of the page.

12. H3-1: User Control + Freedom / Severity 2 / Found by: D, C

Problem / Violation Reasoning: On the events frame, after joining a workout event, the "leave workout" element is grayed out text that is not interactive and does not look interactive compared to the other interactive buttons on the page. This is a violation because users should be able to easily intuit how to leave a workout once joined.

Fix: Make the leave workout button with consistent styling and visibility with the other buttons on the page (e.g share).

13. H3-2: User Control + Freedom / Severity 4 / Found by: D, C

Problem / Violation Reasoning: On the events frame, after creating a workout event, there is no way to delete your event. This is a violation because users should be able to easily delete an event once created.

Fix: Make a delete workout button with consistent styling and visibility with the other buttons on the page, similar to "leave workout" when joining a non-owned event.

14. H3-3: User Control + Freedom / Severity 3 / Found by: D

Problem / Violation Reasoning: On the events filter frame, there is an option for prioritizing the filter based on every dimension of workouts except for time. This is a violation because users should have the freedom to de-prioritize time and focus on other dimensions if they wish, e.g: what if you just care about playing basketball some time in the future.

Fix: Add a consistent option to not base the filter off of time similar to how the other dimensions are designed.

15. H3-4: User Control & Freedom / Severity 3 / Found by: B, A

If used frequently the app could accumulate multiple buddies, both pending and matched. In addition, as time goes on users may no longer want to interact with a buddy. This could lead to many buddies or potential buddies, with which the user is never interacting, cluttering the interface. **Fix**: provide users with the ability to unmatch pending and current buddies if they no longer wish to work with them or the buddy has taken too long to respond.

16. H4-1: Consistency + Standards / Severity 3 / Found by: D, B

Problem / Violation Reasoning: On the workout scheduler suggester, the whole color schemed is grayed out, including the interactive confirmation button. This is a violation because this makes users think it is uninteractable compared to the other buttons, which use orange to signify interaction.

Fix: Make the color scheme of the schedule suggested less monochrome and more consistent with the action-oriented orange of other frames.

17. H4-2: Consistency + Standards / Severity 1 / Found by: A, D

Problem / Violation Reasoning: On the discover page, there is inconsistency in the pyramid separated into three pieces icon as hollow on the blue background and solid on the orange background. This is a violation because users are left wondering if these icons are different by mistake or if they intentionally mean different things.
Fix: Choose one consistent representation for this pyramid icon.

18. H4-3: Consistency + Standards / Severity 1 / Found by: D, B

Problem / Violation Reasoning: The running man icon is used to signify both the activity filter on the events page as well as a specific trait on the profile matching page, where I assume it means cardio or running. This is a violation because users are left to wonder if these are two distinct things or if they both intentionally are the same icon.

Fix: Choose a different icon for overall activity or a different icon for what I assume is cardio.

19. H4-4: Consistency + Standards / Severity 2 / Found by: A, D, C, B

Problem / Violation Reasoning: There are many different colors and schemes for confirmation / apply buttons on the different screens e.g: orange text on gray for apply, dark gray on light gray on scheduler confirm, white text on orange for join workout. This is a violation because there does not seem to be any meaning behind

these different scheme choices, and this could disorient the user to have such different schemes for buttons.

Fix: Make most confirmation buttons the same color scheme and only change the color of a button that needs to be a different color for a good reason.

20. H4-5: Consistency + Standards / Severity 1 / Found by: A, D

Problem / Violation Reasoning: The alignment of header / title text is inconsistent: on the My 2Fit Buddies, the header text is left justified but the header of every other screen is centered. This is a violation because users detect small changes in layout, and it is jarring to the visual signposting of a UI.

Fix: Either make all headers left justified or centered.

21. H4-6: Consistency + Standards / Severity 1 / Found by: D, C

Problem / Violation Reasoning: The selectable items e.g: checkboxes and fitness place filter have slightly different background colors. This is a violation because color should be used sparingly to distinguish distinct items, but the slight variation in color between similar items seems unjustified.

Fix: Make multiple choice / selectable affordances a consistent color scheme.

22. H4-7: Consistency + Standards / Severity 1 / Found by: D

Problem / Violation Reasoning: There are many different card backgrounds, colors, and designs between frames e.g: white card with orange text for matching people and gray card with white text on the sharing workout with people on events page. This is a violation because color should be used sparingly to distinguish distinct items, but the slight variation in design between similar card items seems unjustified.
Fix: Stick with a consistent card schema throughout different frames.

23. H4-8: Consistency + Standards / Severity 1 / Found by: D

Problem / Violation Reasoning: The grey block header with white text and back button on workout buddy messaging frame is inconsistent with the headers and back button on other pages, which are orange text and arrow on black. This is a violation because color should be used sparingly to distinguish distinct items, but the slight variation in design between similar header items seems unjustified.
Fix: Stick with a consistent header schema throughout different frames.

24. H4-9: Consistency + Standards / Severity 1 / Found by: D, C

Problem / Violation Reasoning: On the discover page, the filter is located on the top right corner but on the activity screen, it is on the top left. This is a violation because

the inconsistent location of the filter is very jarring to users who expect the filter to be on the top left corner and takes extra labor to look to right. **Fix:** Put the filter in the top left.

25. H5-1: Error prevention / Severity 2 / Found by: C

When the user taps on the filter icon in *Task Flow 2: Discover Fitness Buddies* interface, the user is sent to another page with the various filters the user can select. When the user scrolls down to the bottom, the user encounters the *APPLY* button and all the other elements in the bottom bar—*My Profile, Discover, My Buddies, Events*. The user already has a button to tap to escape the filter page, which is the top left back arrow button. Therefore, there is no need to have other escape routes so close to the button the user actually has to tap on after filling out the filter options. The existence of the bottom bar is not only redundant as an escape route but also is very likely to cause unnecessary errors in the process of applying filters. **Fix:** remove the bottom bar in the filter page

26. H5-2: Error Prevention / Severity 3 / Found by: B

The way the system works now, for your user to check on how a match is going they need to open the person again and see if the response is pending. This can lead the user to forget if they are already opened a profile. Hence, your user may continuously be clicking on someone they have or tried to match with. **Fix**: If a user has already tried to match with someone and their response is pending, remove that person from the discovery screen, and perhaps create a "pending" screen under buddies.

27. H6-1: Recognition Not Recall / Severity 1 / Found by: B

On the filter page for activities adds a button for only adding events that myBuddies have joined, but does not give any examples of who buddies are, and requires user to remember who they have been paired with. This can be a problem if people have not created buddies or if they do not remember who they have matched with. **Fix**: Add one to three names of paired buddies in button description so user remembers who these are/who exactly they are sharing with.

28. H7-1: Flexibility + Efficiency of Use / Severity 3 / Found by: D

Problem / Violation Reasoning: On the creating events page, it would be useful to have saved presets options especially because it seems workout event events would be a consistent event. This is a violation because there are a lot of user labor redundancies required from making a workout event each time.
Fix: Implement a saved workout preset template option.

29. H7-2: Flexibility + Efficiency of Use / Severity 3 / Found by: D

Problem / Violation Reasoning: On the buddy scheduler page, if you are trying to keep your buddy accountable to work out consistently, perhaps there should be a

feature for not just scheduling one meeting time but having a consistent, repeated event, like a weekly run. This is a violation because there are a lot of user labor redundancies required from making a new schedule matching each time. **Fix:** Implement a recurring event feature in the scheduler.

30. H7-3 Flexibility and efficiency of use / Severity 2 / Found by: C

After the user selects *JOIN WORKOUT* in *Task Flow 1: Joining Event*, the button reappears as *JOINED* + checkmark and a calendar and share icon next to it. First of all, although in the modern age the calendar and share icon are prevalent in other existing apps, it may not be clear to some people what the icons actually do or if they are even clickable in this interface. Secondly, I don't think having the calendar icon is necessary. I believe it is safe to assume that when the user joins an event, the user would want to see the event on his/her calendar—this process shouldn't be manual.

Fix: remove the calendar icon; this will make the joining process much more efficient for the user.

31. H8-1: Aesthetics and Minimalist Design / Severity 4 / Found by: A, D, B, C

Problem / Violation Reasoning: On the search page, the use of green and red on icons is disorienting, and I am unable to interpret what it means (e.g. matching of traits vs. intensity of match or is blue a high match or is red a high match). This is a violation because color should be used intentionally to supplement visual sign-posting, rather than introduce more confusion.

Fix: Show only the traits you matched without a color distinction.

32. H8-2: Aesthetic & Minimalistic Design / Severity 2 / Found by: B

On filter page for group activities gives a sliding bar to "only show events with this intensity" or "only show events with for these activities" in addition to the ability to filter for location or activity. The sliding bar is redundant because the user is already given the option to filter. **Fix**: Remove the sliding "only show" button for both distance and activity

33. H8-3: Aesthetic & Minimalistic Design / Severity 1 / Found by: B

In discover in your filtering for "other info" there is both the option to filter for personality type and intensity. Here you are provided both with the label experience and "beginner" as well as the label personality and "fanatic". Given the user is already assigned these and has only one option for each, there is no need to include what specific personality or experience the user is. The user does not need both pieces of information on the screen and may be confused by thinking they are missing the option to select different intensities or personalities. **Fix**: Remove the "beginner" and "fanatic" app, and just leave the labels "experience" and persoality" with the check boxes.

34. H8-4: Aesthetics and Minimalist Design / Severity 3 / Found by: A, D, B
Problem / Violation Reasoning: On the search page, the white stencil icons on pastel badges is difficult to see. This is a violation because color should be used in a way that is easy for the eye to interpret and not introduce extra labor into the user.
Fix: Use darker backgrounds on the icons.

35. H8-5: Aesthetics and Minimalist Design / Severity 1 / Found by: D

Problem / Violation Reasoning: In most of the frame, similar shades of black, grey, and white are used in the cards and layout. This is a violation because color should be used intentionally to categorize common elements and distinguish different elements, but it seems random and extraneous.

Fix: Make the app all dark or all light (e.g: very light grey with white cards)

36. H8-6: Aesthetics and Minimalist Design / Severity 1 / Found by: A, D

Problem / Violation Reasoning: On most of the frames, a rounded aesthetic is used (rounded cards, round icons) but then the "added workout to calendar" box and check boxes on the people filter are squares. This is a violation because this inconsistency in aesthetic is jarring to the user.
Fix: Make every box and card rounded.

37. H8-7: Aesthetics and Minimalist Design / Severity 3 / Found by: D, B

Problem / Violation Reasoning: On the discover page, the connect and send a message buttons are difficult to see because of the thin orange on white background. This is a violation because color should be used to help signpost information rather than confuse users.

Fix: Use a color scheme with higher contrast, e.g: orange on grey.

38. H8-8: Aesthetics and Minimalist Design / Severity 1 / Found by: D

Problem / Violation Reasoning: The +connect text in button on the discovery page is not aligned to the center of the button. This is a violation because we automatically make sense of visual alignment in our head, and slight deviations in spacing are very jarring.

Fix: Center align the "+ connect" text.

39. H8-9: Aesthetics and Minimalist Design / Severity 1 / Found by: A, D

CS 147 Autumn 2019: Assignment 9 (Heuristic Evaluation Group Template) Instructor: James Landay

> **Problem / Violation Reasoning:** On certain frames, different font stylings are used very liberally (I counted 7 different combinations bolding, point size, and color on the events workout page). This is a violation because font stylings should be because font styling should be used to help signpost information rather than overwhelm the user. Fix: Use less different combinations of fonts and more intentional about when you introduce a different font styling.

40. H8-10: Aesthetics and Minimalist Design / Severity 3 / Found by: D

Problem / Violation Reasoning: On the events filter page, the time buttons / tags are irregularly oriented and displayed in an unintuitive way to represent time. This is a violation because the design confuses users at how to interact with these elements, whether they were filters that you could select multiple of or a button where you select one.

Fix: Display the time preference options in a calendar format.

41. H8-11: Aesthetics and Minimalist Design / Severity 1 / Found by: A, D

Problem / Violation Reasoning: On the My 2Fit Buddies page, the overall aesthetic styling is very distinct from the rest of the app, for example, how big the profile name is and its mauve color. This is a violation because this difference in styling is very jarring to the user's experience and "story" of the overall app. **Fix:** Make the font and layout styling smaller and more similar to the rest of the app.

42. H8-12: Aesthetic and minimalist design / Severity 1 / Found by: A

On many pages, the smaller text is too small to read at the phone scale. I see that there was thought taken to highlight the important information such as name and age, **Fix:** increase font size for both.

43. H8-13: Aesthetic and minimalist design / Severity 1 / Found by: A

The icons on the bottom of the screen should be self explanatory and the text below it makes the bottom bar unnecessarily cluttered. Fix: Remove text and find better icons if necessary.

44. H8-14: Aesthetic and minimalist design / Severity 1 / Found by: A

Filter icon isn't self explanatory, could cause confusion. Fix: Find a better icon.

45. H10-1 Help + Documentation / Severity 4 / Found by: A, D, B **Problem / Violation Reasoning:**

I imagine users will need to look up what the icons on the discover page mean in order to understand their matching, but there is no information screen for the icons. This is

a violation because the app introduces new ideas / a language of icons to the user but provides no way for them to learn this language. **Fix:** Add a profile icons / traits info screen.

46. H10-2: Help + Documentation / Severity 4 / Found by: D, B Problem / Violation Reasoning:

I imagine users will need to look up what the star icon and two people icon on the events page means in order to understand the make-up of their group workout, but there is no information screen for the icons. This is a violation because the app introduces new ideas / a language of icons to the user but provides no way for them to learn this language.

Fix: Add a group event icons info screen.

47. H10-3 Help and documentation / Severity 3 / Found by: A, C

When the user wants to send his/her buddy a message regarding suggesting a workout in *Task Flow 3*, the user has to tap on the calendar icon next to the *Type Message* space. First of all, the calendar icon is very unintuitive in this particular situation. A similar calendar icon is used in *Task Flow 1*, and tapping that icon add the selected workout to the user's calendar. Here, the calendar icon is supposed to make the user select the location and time of the meeting they want to suggest to the person. In this app, this function is somewhat crucial, because the whole point of this app is to help people meet up with new people who have similar interests and can meet up at similar times. Therefore, how to access this process should be clearer, and the process itself should be documented in real time as the user chooses the times and such. However, in my opinion, I think this function is very unnecessary; the user and the other person matched because their schedule somewhat overlaps. Why not just show the available times to both users and allow them to set a meet up time and location by texting each other? **Fix:** make the calendar icon function more visible and document the process. Or just delete the whole function.

48. H10-4 Help and documentation / Severity 3 / Found by: A, C, B

In *Task Flow 2: Continued*, the user is shown the various information about the person that had just selected. When the user wants to connect with the person, he/she has to find the +*Connect* button at the top left. Then, if the user wants to send a message to the person, he/she has to clock on the very small *Message Sam!* Button at the top. I believe this process of connecting, matching, and sending a message should be documented for the user. As this is one of the primary features of the app, each process should be emphasized and more direct/larger feedback should be given—just like how Tinder shows clearly when the user matches with another person and to send them a message. The current Med-fi does this very passively without shown documentation.

Fix: emphasize the connect/match/send message portion of the page, and add small amounts of text or feedback to document this process to the user.

49. H10-5: Help and documentation/ Severity 2 / Found by: A

There's no documentation of all the scheduled events unless the user chose to add everything to their external calendar.

Fix: have a calendar page

3. Summary of Violations

Category	# Viol. (sev 0)	# Viol. (sev 1)	# Viol. (sev 2)	# Viol. (sev 3)	# Viol. (sev 4)	# Viol. (total)
H1: Visibility of Status		1	1	3		5
H2: Match Sys & World		3	2	1		6
H3: User Control			1	2	1	4
H4: Consistency		7	1	1		9
H5: Error Prevention			1	1		2
H6: Recognition not Recall		1				1
H7: Efficiency of Use			1	2		3
H8: Aesthetic Design		9	1	3	1	14
H9: Help Users with Errors						0
H10: Documentation			1	2	2	5
Total Violations by Severity						
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)		21	9	15	4	49

Severity / Evaluator	Evaluator A	Evaluator B	Evaluator C	Evaluator D
sev. 0	0	0	0	0
sev. 1	0.38	0.14	0.10	0.71
sev. 2	0.22	0.33	0.44	0.44
sev. 3	0.33	0.53	0.13	0.53
sev. 4	0.50	0.75	0.5	1.00
total (sev. 3&4)	0.36	0.57	0.21	0.63
total (all severity levels)	0.35	0.34	0.2	0.63

4. Evaluation Statistics

*Note that the bottom rows are *not* calculated by adding the numbers above it.

5. Summary Recommendations

Overall, the app's navigational flow and intention is very intuitive and relies on existing expectations of scheduling, matching, and event creation tools. Two main problematic patterns I found are 1) aesthetic inconsistency throughout the app and 2) building a new language without explaining. First, there were a lot of aesthetic inconsistencies between the frames and cards. Different spacings, alignments, font stylings, backgrounds, and card shapes were used very liberally to the point where it seemed like different people designed the different tasks, and this could be disorienting to users. It would be good to pick the main consistent stylings and get rid of unnecessary design decisions that distract rather than sign-post information. Another thing to be wary of is that you are introducing a lot of language and ideas in your app, like the icon traits and terminology like "Personality" and "myBuddies". For branding and story-telling purposes, it makes sense to create this language, make sure users are adequately prepared and have ways to learn what these terms mean through information screens or the terms are intuitive enough by design that you do not need info screens.

Once these two problems are addressed, the UI and task flow of this solution is very effective and streamlined for the goals of connecting users to consistently work out together in the community!