Project 9 - Final Prototype

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I. INTRODUCTION

Our prototype, Just 4 Friends, was designed to help people who want to find platonic friends or group activities but have trouble doing so given the challenges of their everyday lives. Some people work odd or irregular hours and some just aren't that good at striking up a conversation with strangers. There are also those who have to relocate for various reasons and don't know anyone in the place they relocated to. We have designed our prototype to meet these needs in a straightforward, easy to understand fashion by allowing users to create a profile, find people who match with them based on selected criteria, and create or find events to participate in. The development process involved using insights that our group gained from interviews conducted with our target users, internal cognitive walkthroughs conducted by members of our team, empirical research conducted through observations of users, and feedback from design galleries.

II. MATERIALS

The storyboard summation of our prototype is presented in Appendix A. The myBalsamiq prototype can be found in Appendix B linked below

https://drive.google.com/open?id=0B5WzAlxNYFosRzRmcTNiOW9iYlk.

III. DESIGN JUSTIFICATIONS

We decided to design our prototype as a mobile app. This was backed up by our interview data where people often used similar apps for meeting other people from their phone. Initially, we were going to have the app be strictly for finding friends, but in our interviews we discovered that in addition to that, some users were also interested in finding activities they could participate in with others. We decided to include both so that the app is flexible and has functionality to serve both subsets of users well.

People we interviewed agreed on a number of different design elements that we decided to include. Some of these were an optional profile picture, biographic information about the user, a map interface, a set of interests to select from that can be used to search for other users with, a general idea of how far from another user you live, the option to have more or less info on your profile, and the option to create an activity and post it so other users can see it and enquire about joining you. For the color scheme, we chose light background colors with dark text. We chose these colors in accordance with the design principles about perception and contrast to make sure the information presented is easily visible.

Also in accordance with design principles we avoided a cluttered UI, keeping the information presented on screens constrained to a particular task or function to prevent distracting the user. Our goal is for the content of the app to draw the user's attention, not it's interface. Each screen has a prominently displayed title identifying its function across the top, such as "Create Profile" and "Edit Activity Tags". The user has a consistent place to look if at any time they lose their sense of orientation within the app.

In order to help users form a robust mental model of the navigation of our app, we choose a four tab design that organizes the functions of the app into four main screens: Profile, Matches, Users, and Messages:

A. Profile

The profile tab is where a user maintains their own profile. Here tags can be added or removed. Attributes can be added removed or adjusted. The goal is to give the user 100% control over what they share to mitigate safety concerns as well as maintain functionality for different types of users. Safety concerns were mentioned from every single person interviewed in our study. Some concerns were about information security. This concern is mitigated by the flexibility of having control over what information is shared. All profile attributes are optional. A user doesn't have to share a picture or a location if they choose not to. A user can chat with people first before committing to any meeting. Users will be able to block other users and report for spam or abuse.

Our prototype tried to simplify the profile creation process from what we had in our prior iteration. In both our cognitive walkthroughs and our empirical studies, we found that users had a hard time figuring out what many of the buttons and fields were supposed to be for and which of them were required. The creation of a guide was suggested to simplify this process. As a result, we added an intuitive walkthrough that describes to the user what it is they need to do for each step of the profile creation process. Though we later changed this to be optional based on feedback we got from the design gallery.

We also found in our cognitive walkthrough that our previous design did not include any way to give the user feedback that their profile had actually been created. We

addressed this by adding a button during the final stage of the profile walkthrough that allows the user to view their finished profile. In addition, our evaluators realized that having the main menu options of viewing matches, activities, and messaging would not be appropriate until the user has finished their profile. Therefore, we constrained the user from accessing those things by removing the menu until the user has gone through and finished their profile creation.

The prototype also needed some improvements for the user to view their profile. Our evaluators found that it wasn't completely clear how a user would edit certain sections of their profile. To address this, we added highly visible cog icons to make it clear to the user how to edit the different sections available. We also received feedback in both our empirical study and our cognitive walkthrough that users were unclear about what the main menu icons were supposed to represent. To address this, we changed the icons used in the menu to be more representative of what each tab is supposed to be for.

B. Matches

The Matches Tab displays everyone that has at least one matched tag within your range radius. When the matches tab is pressed you receive a summary of the matches. This is presented as a list of names with an associated match rating and the person's general usage description. This organizes the information in a way that allows users to quickly find someone or an event. By clicking the username, you can view the matched person's profile, and send a message if you'd like.

Based on feedback we received from the design gallery, we changed the way matches are displayed from a three column, spreadsheet style table to a single column of matches that span the width of the screen, while eliminating the spurious "View Profile" buttons to create room to display more profile content. This also allowed us to make the names of the matches larger and more legible.

C. Activity

Users create events at a location using a map interface. Users create the event with desired custom attributes including a description and associated activity tags. Users that match those activity tags will be able to see the events on their activities tab. This could be used for large public events as in the example, or perhaps a small activity in which people are looking for more participants. Its entirely up to the creator of the event.

We decided that having a walkthrough for creating an activity would be consistent with having a walkthrough for creating a profile. This way, the user will be guided through each step and know what type of information needs to be included. We also used it as an opportunity to provide the user with more options that our evaluators thought were lacking in our cognitive walkthrough. A user can now choose to show themselves as the activity host, make the message board for the activity public, and require a user to RSVP if they want to attend the event. We also noticed that our previous design lacked a feature to show the user that their activity had been created. Therefore, we added buttons allowing the user to review the details of the event they are posting and a then a button to create it if they are satisfied with their entry.

D. Messages

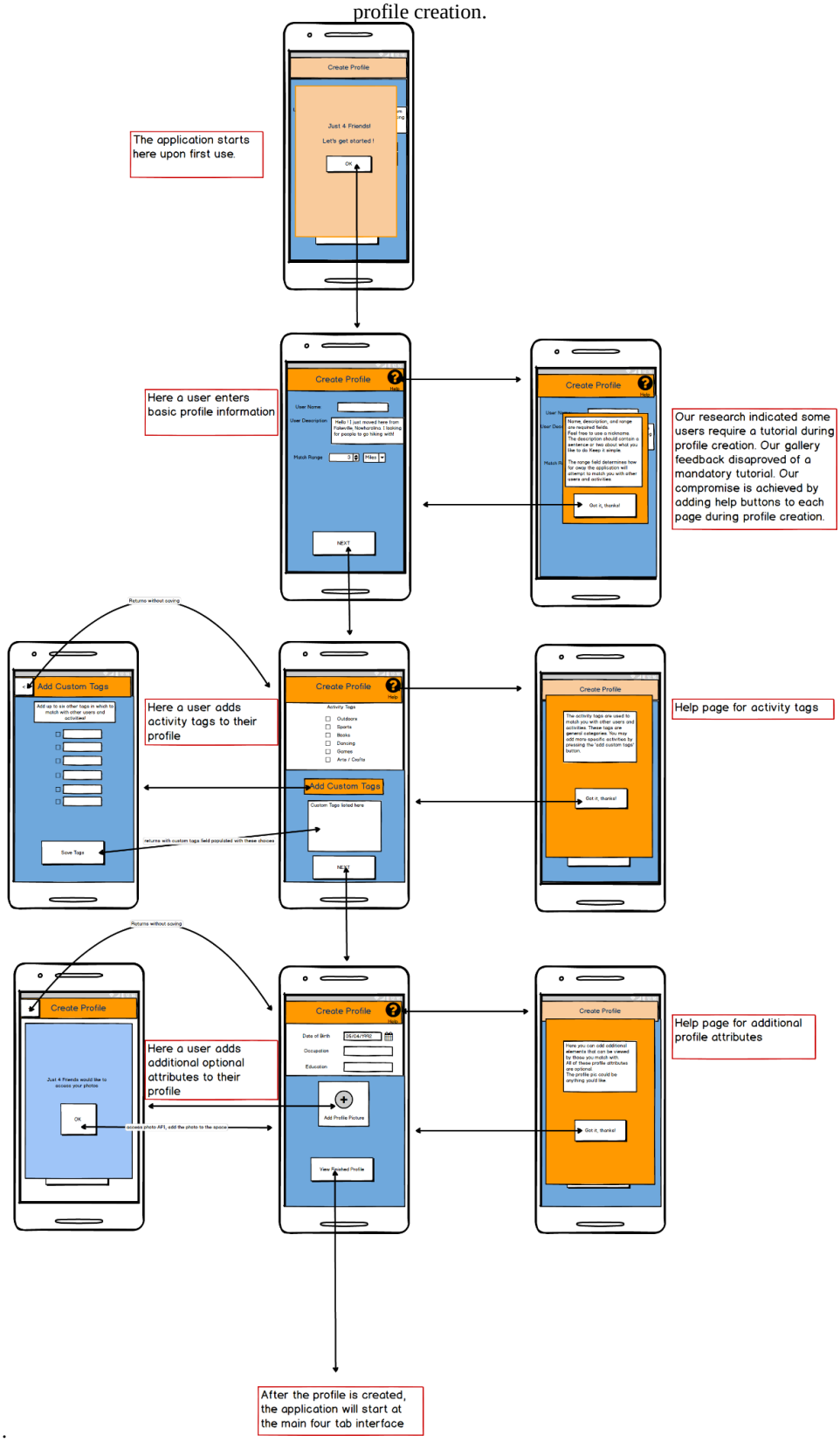
The messages tab aims to be simple and representative of a typical text message interface. Clicking on the icon sends the user to the match profile or event. Nothing excessive, just designed to be completely intuitive by mimicking a typical message interface. This promotes usability by adhering to pre-existing conventions.

One issue that was discovered in our empirical study and our own evaluations was that the messaging screen needed some re-organization. Our previous design had user to user messages listed in the same place as messages for activities. We decided to fix this by creating a separate tab for each which we felt would greatly enhance the cleanliness of the messaging screen. Now user to user messages are contained in one tab, and messages related to activities are contained in another.

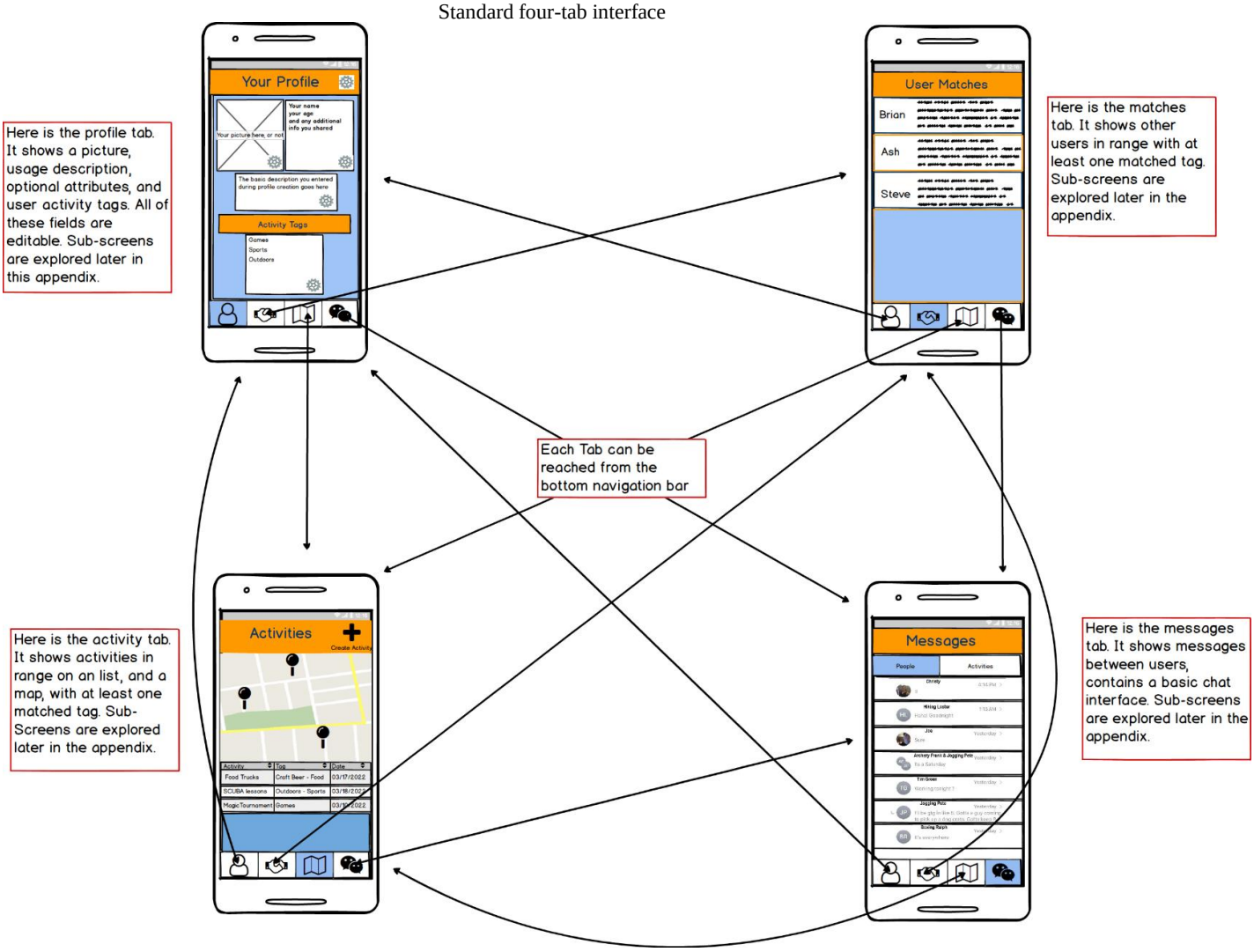
IV. CHANGES AFTER DESIGN GALLERY 2

- Aligned the cog wheel icons used to edit sections of the user profile to the right hand side. It was pointed out in the design gallery feedback that some were on the right and some were on the left, which wasn't consistent.
- Removed the "back" buttons from the four main screens (profile/matches/activities/messages). We found out from design gallery feedback that the links for these were not working. It turned out this was actually caused by an issue converting the prototype to pdf format. Instead of fixing the links, we realized that the four main screens didn't need a back button as those screens are essentially the "top layer". Back buttons remained on any screens that were a layer deeper so that the user has a way to trace back to the "top". The menu bar at the bottom would handle any lateral movements between the "top" screens.
- Changed the profile creation walkthrough tutorial to be optional. We received feedback from the design gallery that the pop-up prompts were unnecessary and that they didn't like that they were being forced on the user. This conflicted with our empirical research which showed that some users needed guidance for profile creation. We resolved the situation by adding a help button to the profile creation screens. Now the walkthrough tutorial is not forced on the user, but those who need guidance can click on the help button to get what they need.
- Changed the create activity button, added actual text "create activity" below the plus sign. We received feedback from the design gallery where a user was unsure how to create a new activity. With the new and improved version, it should be very clear how to accomplish that.

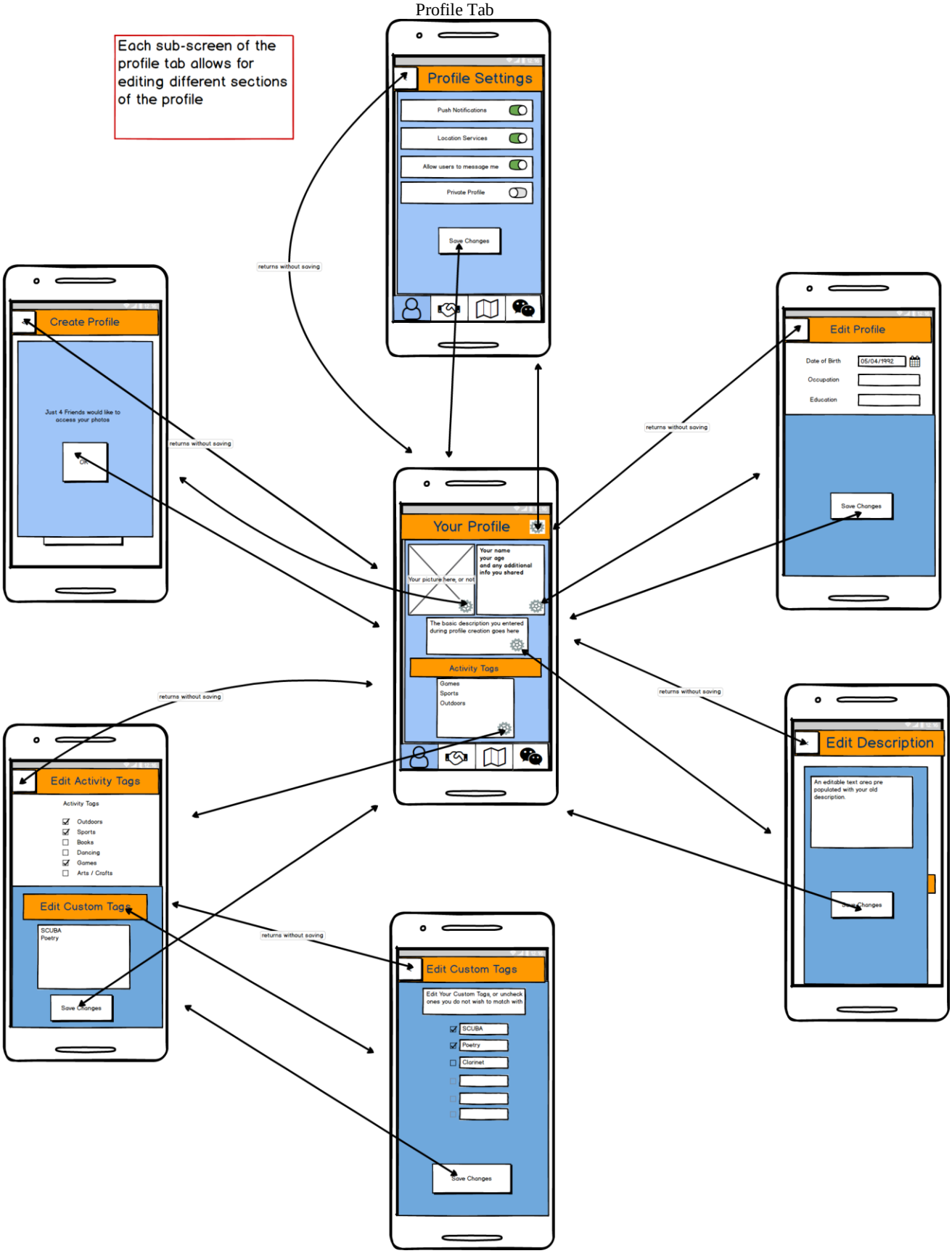
Appendix A: Storyboard The interactive PDF represents the mobile application interface on first use, which requires profile creation.



Standard four-tab interface

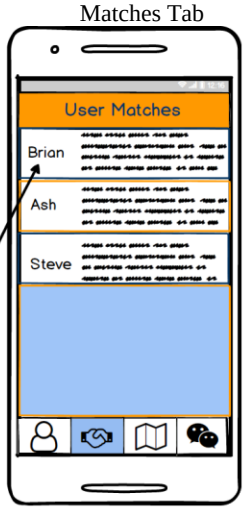


Profile Tab


Each sub-screen of the profile tab allows for editing different sections of the profile
Profile Settings
Push Notifications
Location Services
Allow users to message me
Private Profile
Save Changes
returns without saving
Create Profile
Just 4 Friends would like to access your photos
OK
Edit Profile
Date of Birth
05/04/1992
Occupation
Education
Save Changes
Your Profile
Your picture here, or not
Your name
your age
and any additional info you shared
The basic description you entered during profile creation goes here
Activity Tags
Games
Sports
Outdoors
Edit Activity Tags
Activity Tags
Outdoors
Sports
Books
Dancing
Games
Arts / Crafts
Edit Custom Tags
SCUBA
Poetry
Save Changes
Edit Description
An editable text area pre populated with your old description.
Edit Custom Tags
Edit Your Custom Tags, or uncheck ones you do not wish to match with
SCUBA
Poetry
Clarinet
Save Changes

Matches Tab

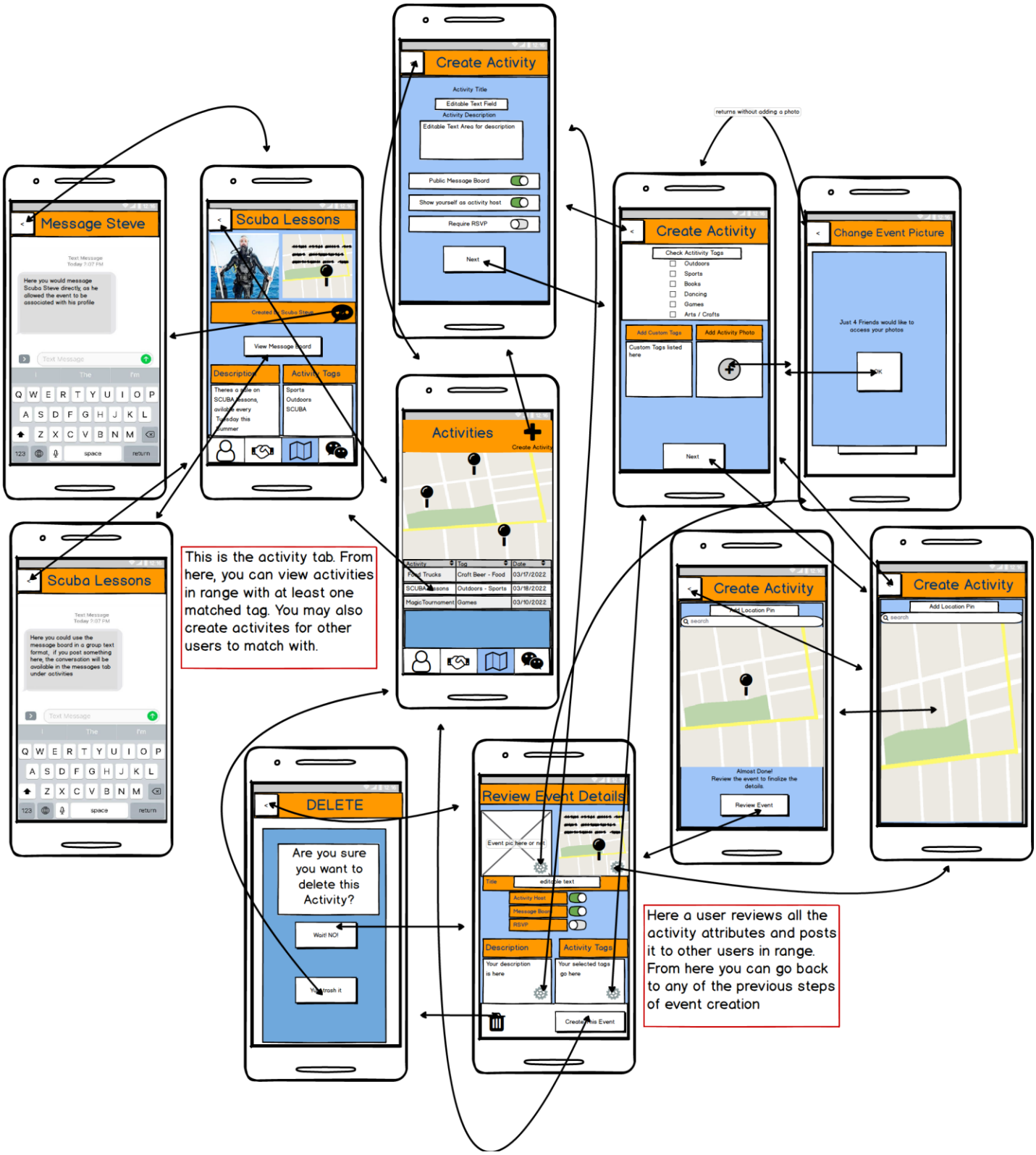
This is the matches tab. It shows every user in range that you've matched a tag with. The screen shows their name and description. clicking on the column brings you to the matched user's profile



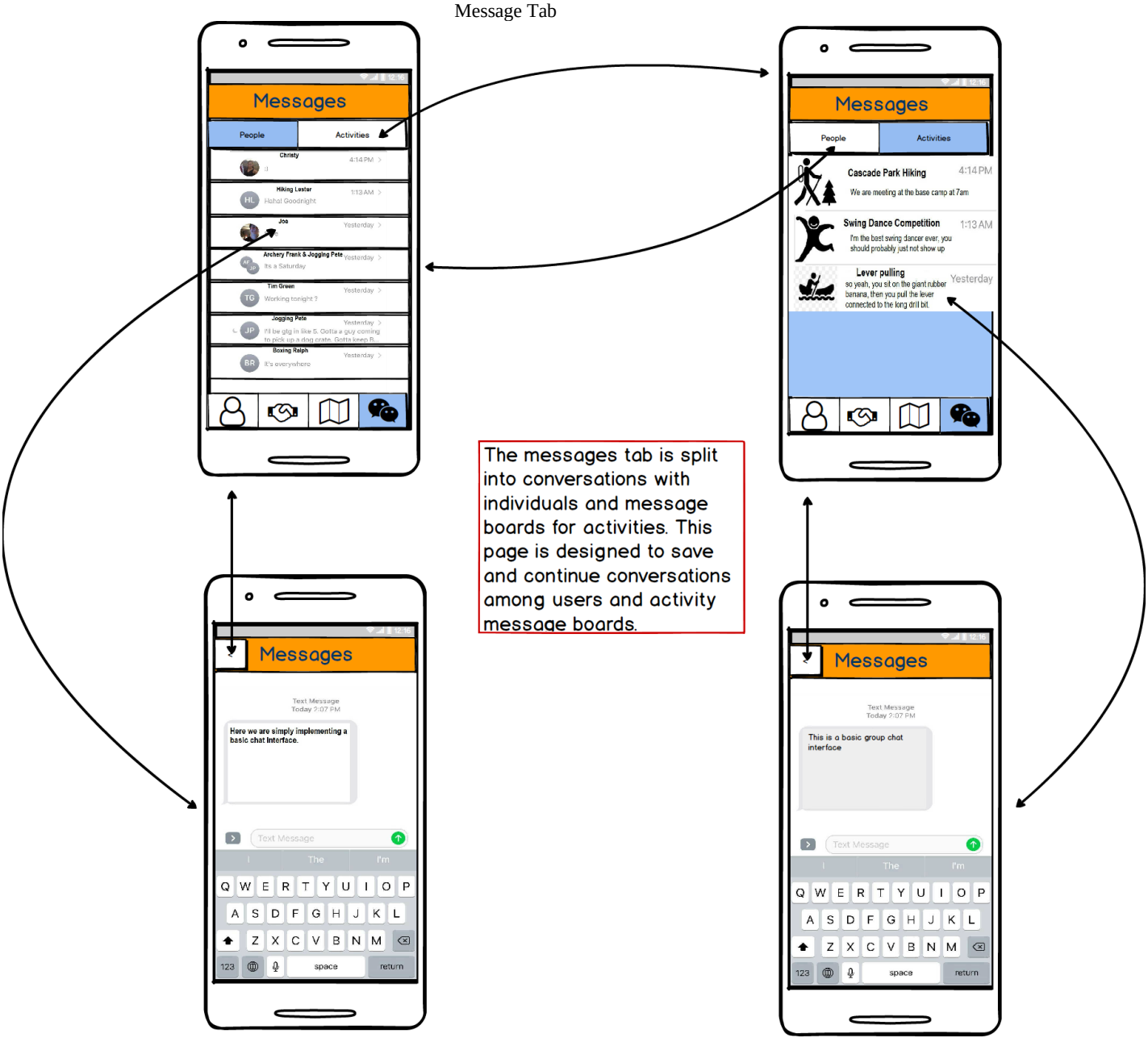
From this page you can see the matched user's profile details and opt to send a message

A standard chat interface. Once a message has been sent, the messages are saved in the messages tab.

Activity tab



Message Tab


Messages
People
Activities
Christy
4:14 PM
Hiking Lester
1:13 AM
Hahal Goodnight
Joe
Yesterday
Archery Frank & Jogging Pete
Yesterday
It's a Saturday
Tim Green
Yesterday
Working tonight ?
Jogging Pete
Yesterday
Boxing Ralph
Yesterday
It's everywhere
Cascade Park Hiking
4:14 PM
We are meeting at the base camp at 7am
Swing Dance Competition
1:13 AM
I'm the best swing dancer ever, you should probably just not show up
Lever pulling
Yesterday
so yeah, you sit on the giant rubber banana, then you pull the lever connected to the long drill bit.
Text Message
Today 2:07 PM
Here we are simply implementing a basic chat interface.
This is a basic group chat interface
Text Message
The messages tab is split into conversations with individuals and message boards for activities. This page is designed to save and continue conversations among users and activity message boards.