Mix

Value Proposition: Helping you find activities you love with people you love.

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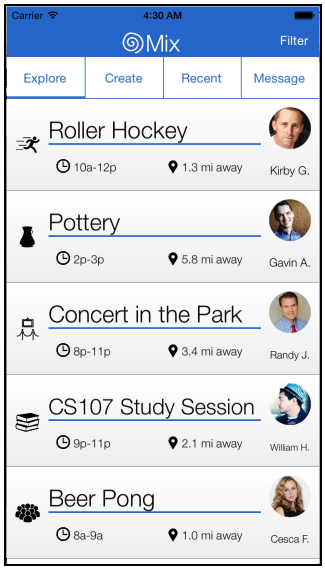
Problem and Solution Overview

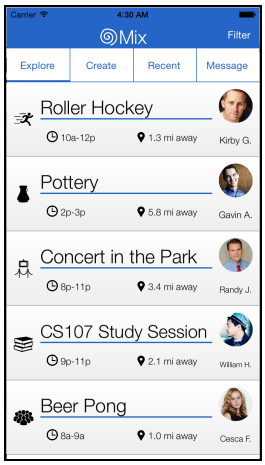
Often times, people skip out on the activities they love to do, whether it be hiking, working out, or going into the city. This is not necessarily because they're lazy, but simply because they cannot find somebody to do that activity with. Their friends may be occupied that day, or maybe they're just looking for something out of the norm to do. Mix empowers individuals to meet new people through mutual interests by allowing individuals to connect with others around the area who are looking to do the same activity. Through Mix, we allow people who may have never met otherwise to become the best of friends.

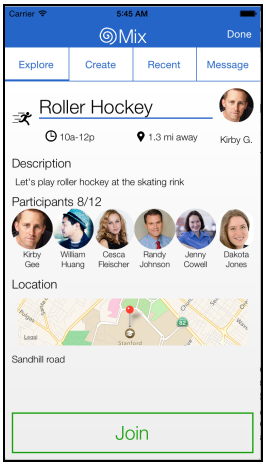


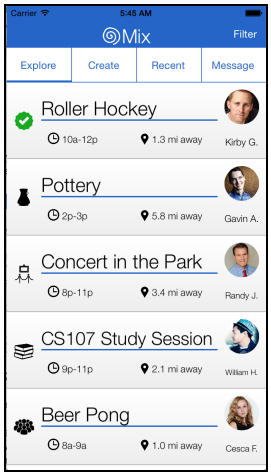
Tasks & Final Interface Scenarios

Task 1 (Simple): Our simple task is joining an activity. This task is for users who either have some free time and want to fill it with something fun, or are looking for an existing activity that has already been scheduled. In the prototype, the user is shown a table view with several different activities scheduled at different times. When the user finds an activity they are interested in, they can view more detailed information (i.e. location, person, skill level etc) about the event by clicking on the table cell. From this new view, the user can officially join the

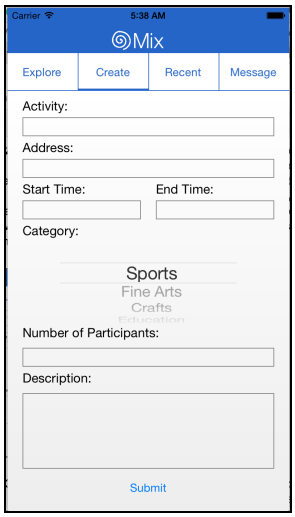
activity. We chose this task because it ties back to our value proposition. This task allows people to find new activities to do around the area.

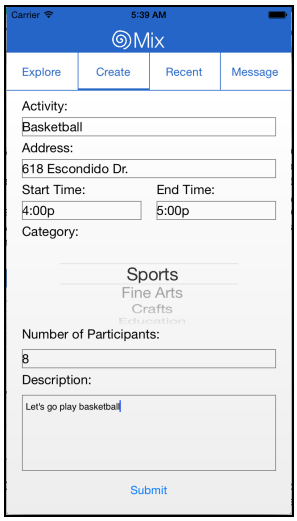


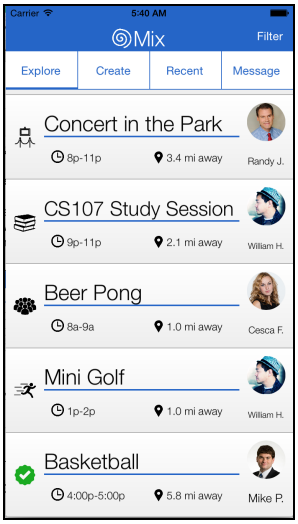




Task 2 (Medium): Our medium task is finding new friends to do activities with. This task is for users who already have an activity in mind, but they cannot pool together enough contacts to do the event. In the prototype the user can tap on the “create” tab to easily add a new activity to the explore table. A dialogue screen is presented where they can input detailed information such as name, location, time, and details. We specifically chose this task because it highlights what we think of as one of the most common use cases of the app: say you want to go work out and have no workout buddy.

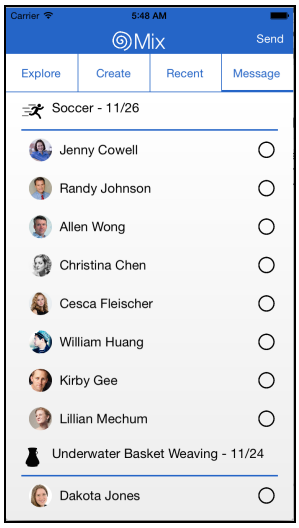


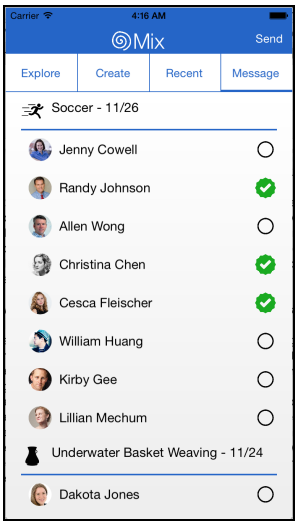


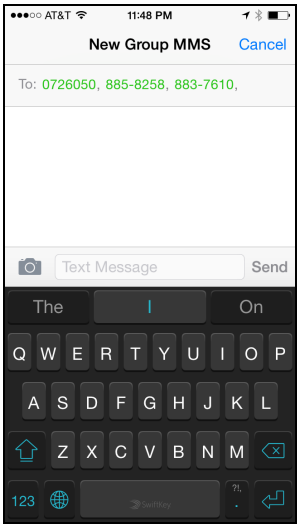


Task 3 (Complex): Our complex task is for users to stay in touch with the friends they have made through activities fostered through Mix. Hopefully the user has found new interesting people through their common interests, and our app provides a way for them to connect. In the prototype, the user can tap the ‘messages’ tab, allowing them to see and message the

people they've interacted with through the app. The user can either select one specific person to message, or a group of people. The prototype uses the iMessage API and allows them to message the individual(s) they selected directly through iMessage or SMS. We chose this task because ultimately, this app allows you to meet people through common interests. We don't want this to just be a superficial interaction. Our app will have truly served its purpose if it creates long-lasting friendships.



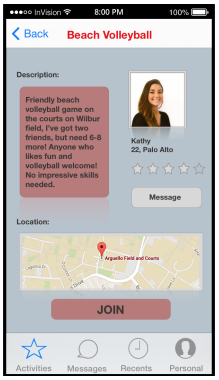


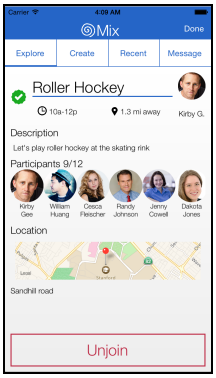


Major Usability Problems Addressed

1. [H23 Control & Freedom][Severity 3] The interface brings users into the details page when they select an activity and allows them to "join" the activity, but does not allow the users to "unjoin" the activity. There is no way to cancel from the activity after they decide that they are not interested doing that activity. Add "Leave" function on details page.

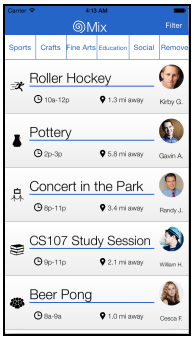
Fix: Once you join an activity, you can now leave it through its detail page. The "leave" button now replaces the "join" button for a joined activity. It made intuitive sense for us to put this functionality where the "join" button was because it is easy to find. This was an important change because users should have the option to opt out of activity if they have a conflict that either came up or they've forgotten about.





2. [H27 Flexibility & Efficiency][Severity 3] The interface has “Filter Activities” option in the Personal tab, which could potentially speed up the user’s search for an activity. The first action I would make is to filter my own activities within the Activities tab, but the filter feature is not easily discoverable. Move the “Filter Activities” option from Personal tab to Activities tab.

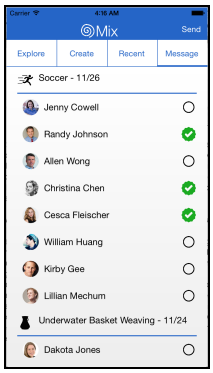
Fix: The “filter activities” is now a button on the top right hand corner of the “explore” tab. We agree that the way we had the filtering option in the personal tab made a bit too hard to discover; it’s an incredibly useful feature, but it takes too many taps to access. It simply made more sense to have it one tap away from the activities that it affects.

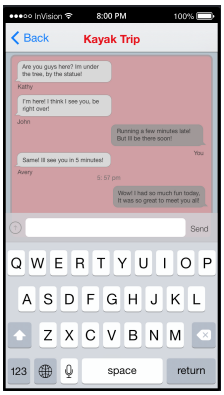


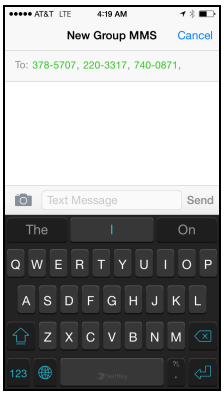
3. [H27 Flexibility & Efficiency][Severity 3] In the Messages interface, there is no way to control the list of messages (e.g. adding a “chatroom” or removing a “chatroom”), reducing flexibility of the messages feature. The messages feature should not be confined to the “joined” activities, since a user may want to ask questions to the host about details before actually joining. Add a ‘+’ button for adding and a “Delete” option for removing a thread of messages.

Fix: We tried to make messaging as flexible as possible by pushing the messaging function outside of the app. The app allows you to pick and choose the people who you want to message, but we used the iMessage API to offload the messaging function to your phone’s built-in messaging system. This allows users to control their list of messages, as they can add and delete threads as they please from their own phone. As for messaging hosts before

joining activities, we created the app so that you can message a user only if you've joined their activity. This makes sense because if you were allowed to message hosts without joining their activity, there is a chance that the host will receive a large number of messages from people who they don't know. If you can only message hosts once you joined their activity, at the very least the host will at least know that you are affiliated with some activity. If a user wanted to clear up details with a host, he or she can simply join an activity, message the host, and leave the activity if need be.







4. [H24 Consistency & Standards][Severity 3] The interface uses "number of people needed" as one of the main data types, but in the "Add Activity" stage, users do not have to input this information, reducing consistency. Allow users to input "number of people needed" information in the "Add activity" page.

Fix: This was both a necessary and an easy fix. It was simply a detail that our team overlooked while making the medium-fi prototype. Now, when creating an activity, there is a space to input how many people are needed for the activity. If the number of people needed has reached its limit, a user can no longer join that particular activity.

5. [H27 Flexibility & Efficiency][Severity 3] The interface uses a basic list to show the activities, but it can be increasingly difficult to search for an activity of interest when the list becomes very long, decreasing efficiency. Add a “search” feature (along with the filter feature already implemented) in the Activities tab.

Fix: We decided not to implement a search feature. This is justified by the fact that we have a filter functionality built in, which is essentially a search in itself. Although we only have filter by category implemented, the user can ideally filter by activity type, radius, time, etc. so in this case it may actually be even more helpful that a simple search by keyword feature. Also, the use case of this app is that it is allowing people to discover activities to do. It is not likely that a user will open the app with a keyword to search for; the user would likely open the app with a specific type of activity in mind, which is taken care of by the filtering functionality.

6. [H24 Consistency and Standards][Severity 3] The stars on the activity details page seem out of place are they the user’s rating as a measure of how good her previous events have been? Why do I not see my rating on the personal page? Or are they rating the activity after? I would clarify this and make the star’s purpose clear.

Fix: We got rid of the star system completely. While it will be necessary later to have a system to check for event host safety, we felt that the star system was a bit ethically incorrect. The star system works for Uber and Lyft drivers because riders are mainly reviewing the ability of the driver to get to the destination efficiently (the drive itself). Using a similar type of rating system in Mix, activity attendees would literally be reviewing the host as a human being. Besides the fact that people may have different preferences and tastes in activity hosts, we also don’t want activity hosts to be discouraged or think negatively about themselves due to a low rating. Again, some type of security system should be built into the app eventually, but we don’t believe a star rating system is a good fit for this app.

7. [H21 Visibility of System Status][Severity 4][Found by: B] It is unclear how public posting an activity is -- can anyone in the area see it? Just your “friends” or network? Anyone in the

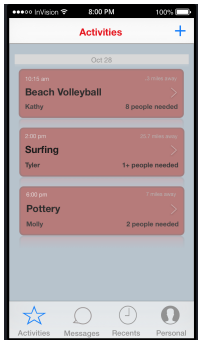
world? The concept of “friends” seems to be introduced on the personal page, but I think it should be more clear.

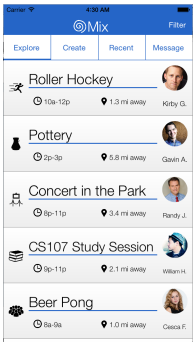
Fix: We made a change to the app so that it makes the postings less confusing. We now completely got rid of the personals tab because we felt it unnecessary; all your settings are now under a settings tab which is common practice among iOS apps. There is no longer a concept of a “friend.” The people you met beforehand will be under “messages” to allow you to text them directly, but if the user really wanted to keep interacting with somebody as a friend, they would have done so outside of the app after the activity (Facebook, text, etc.). Mix merely acts as a vehicle for users to form that relationship. Since we discarded the “friend” concept, it makes it clearer that all activity postings will be made to the public. Users will eventually be able to change the distance (radius) of the activities that they wish to see inside of the filters option explained in a fix above.

8. Other Changes: Tab Bar
Previously, we had a tab bar on the bottom to navigate through the different sections of the app. We changed this to a tab bar on the top with only words and no icons. We felt this was a much cleaner and straightforward design.

9. Other Changes: Activity Categories
Previously in the medium-fi and lo-fi prototypes, each posted activity was simply added to the explore tab. If there were a lot of activities on this page, it would look incredibly cluttered and have no sense of organization. In our hi-fi prototype, each activity is associated with a particular category. These categories are: sports, education, craft, fine arts, and social. This gives a bit more structure to the activities page and also allows for filtering by activity type.

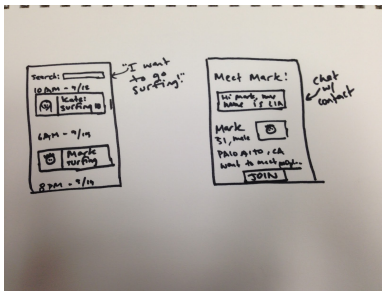
10. Other Changes: Explore Table Information
Previously in the medium-fi prototype, we had the table of activities display the activity name, time, distance, host, and how many more people needed to fill the activity. These table cells felt cluttered, and with no images just seemed incredibly dull. We’ve changed this up to having the activity name, host name and picture, time, distance, and a picture of the category the activity is in. It’s a much more visually appealing design and conveys just enough information for a user to get a sense of what the activity is.

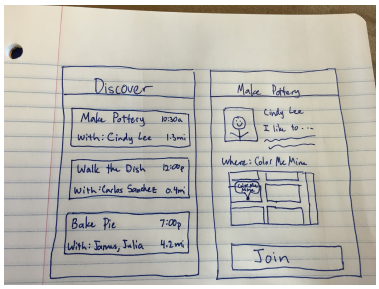


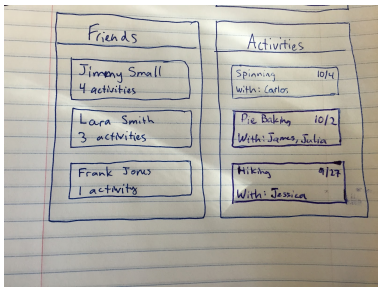


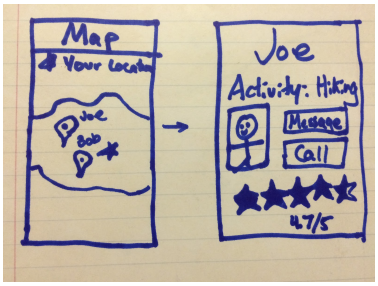
Design Evolution

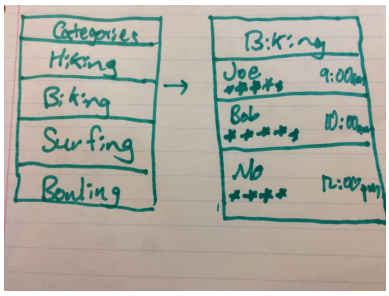
Initial Sketches





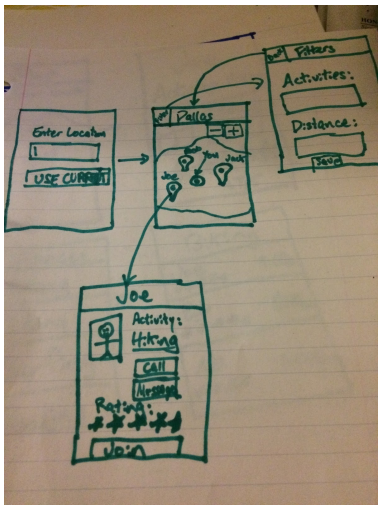


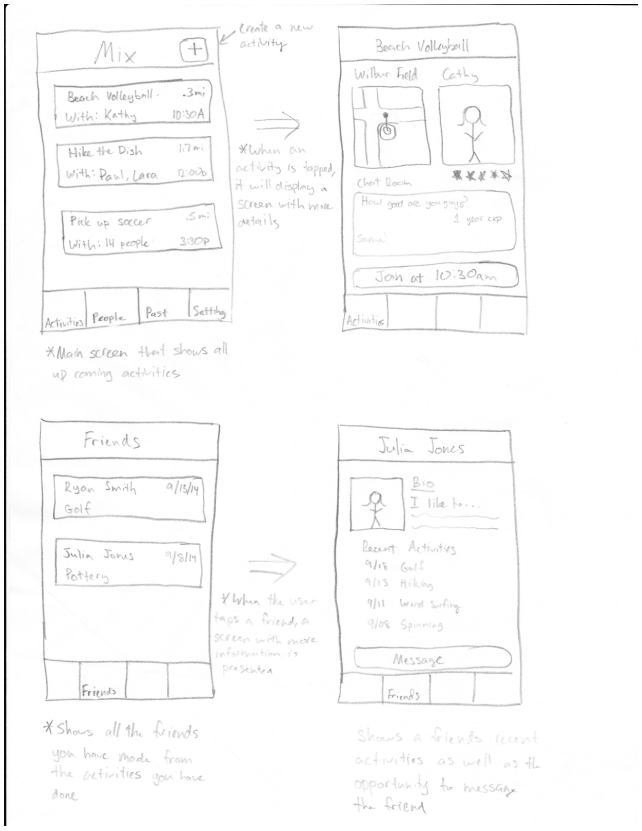


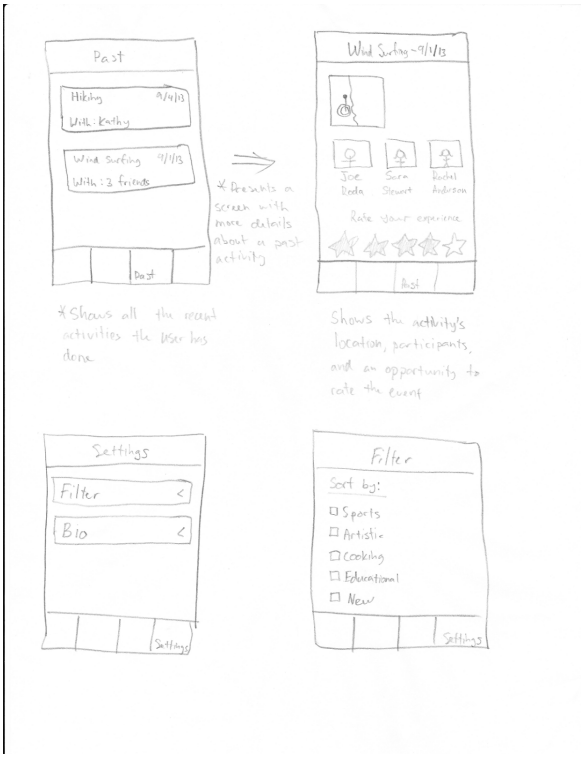


For the initial sketches, the design was based off of what we thought was most intuitive. We had not done any prior research or contextual inquiry when these were first drawn, so most of our UI was based off of previously made apps and iOS convention. It's clear that our designs (such as the the table view in the second design and the map view in the third design) were based off of apps that have already been doing well.

UI Sketches and Storyboards



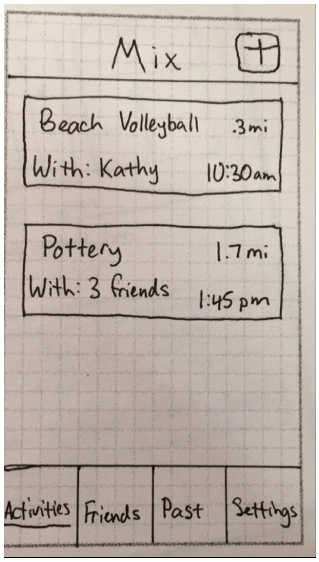


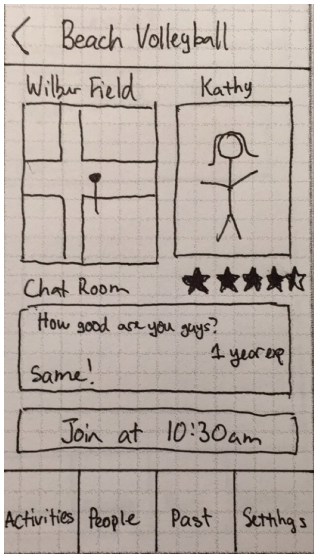


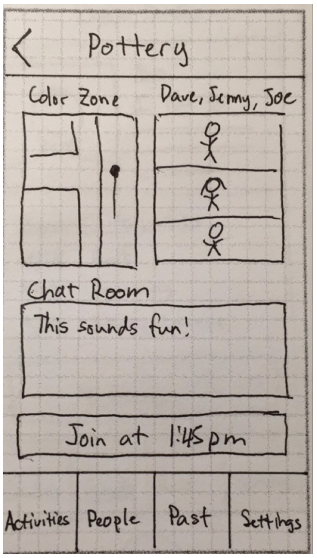
The changes between our initial sketches and the UI Sketches and Storyboard for the Concept Video were very minor, but influenced by the contextual inquiry that we performed. We learned that meeting new people was important to potential users, but keeping in touch with these people they meet was just as important. Because of this, we

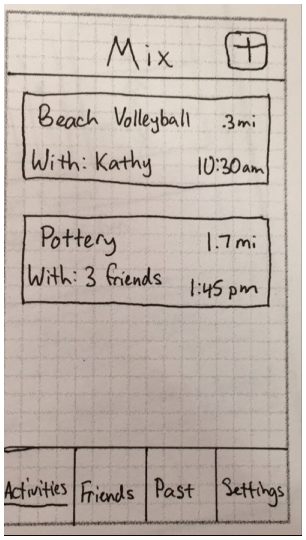
added a tab bar at the bottom of the second design. This allowed for a cleaner and clearer interface, as well as the space for a “Friends” tab that was specialized for the task just described.

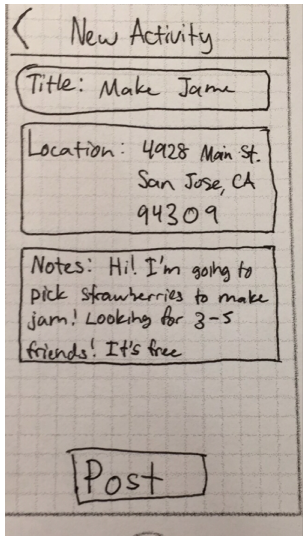
Low-Fi Prototype - Three Tasks

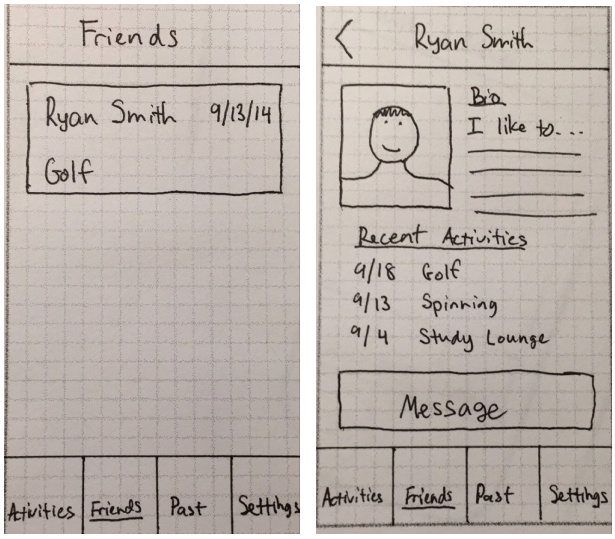






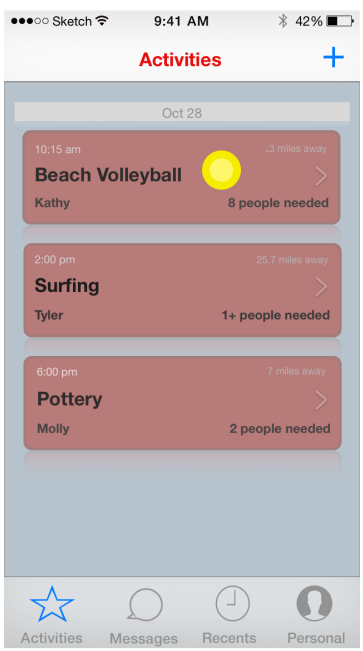


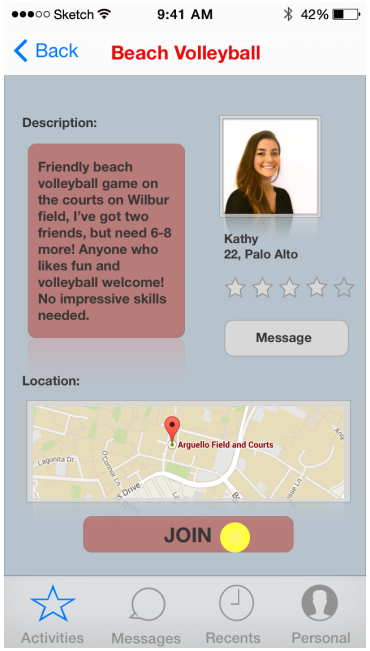


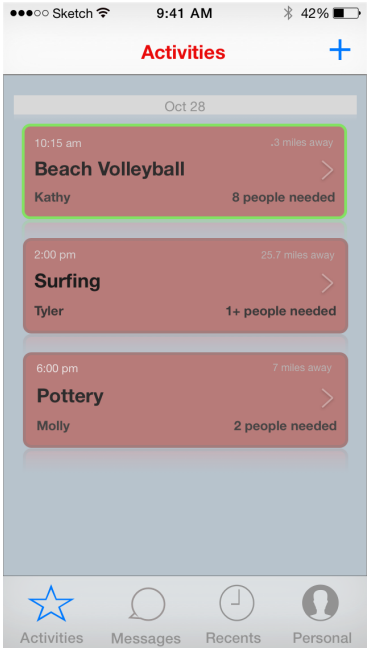


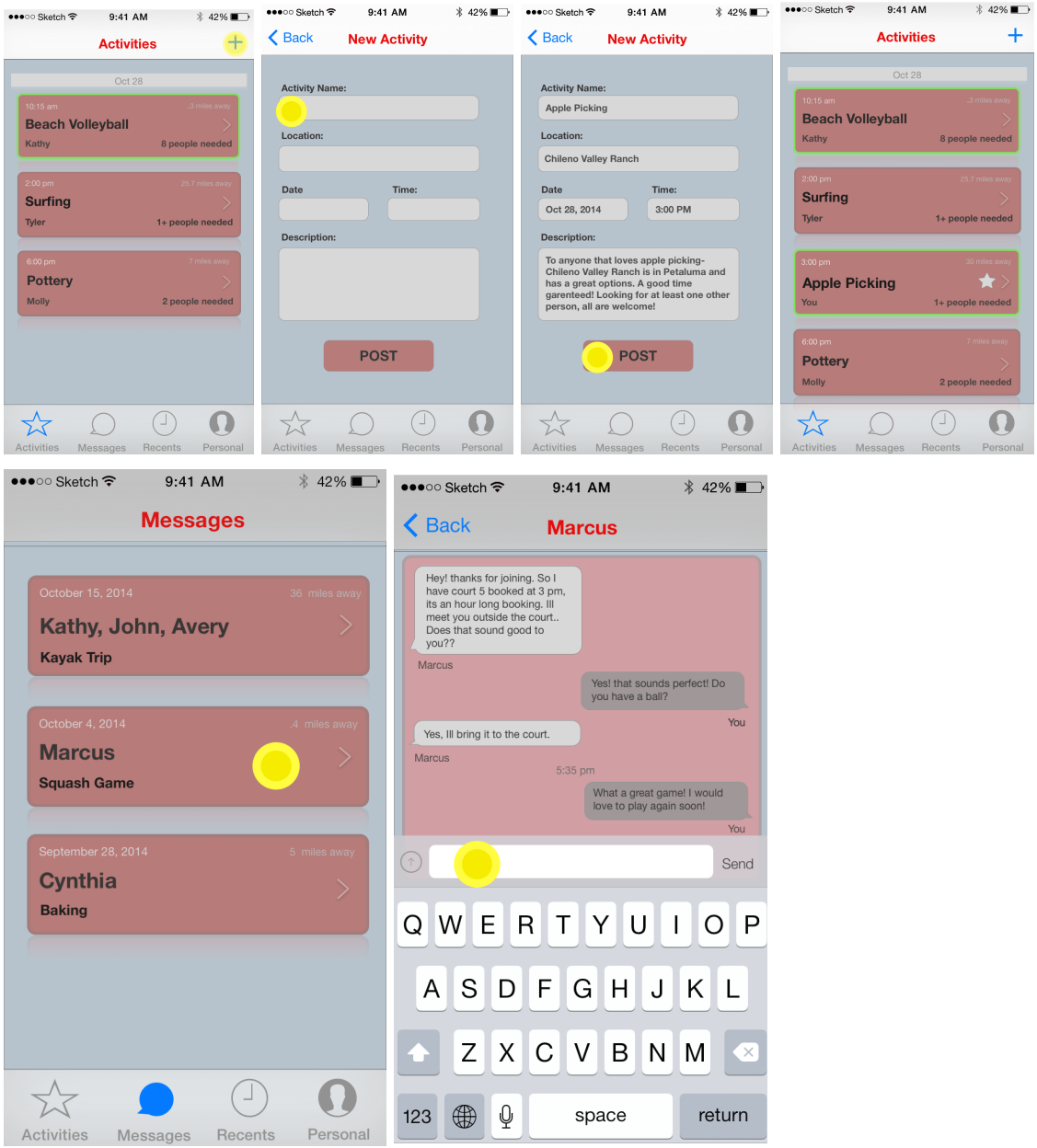
Based off of contextual inquiry, we solidified that UI Storyboard and Sketches to one Low-Fi prototype that accomplished the three tasks described earlier. Me made this decision because this design seemed to allow users to interact with activity hosts and people they've met up with more easily; fast communication was something we found out was essential through our contextual inquiry. This design, as opposed to the Uber-inspired design above, allows people to interact with hosts in a cleaner and more efficient way using messaging, and allows users to also message previous groups. Besides the messaging aspect, we just felt that the tab bar on the bottom was implemented well. It gave clear sections to each tab, splitting them into distinct functions that users could follow more easily.

Medium-Fi Prototype - Three Tasks





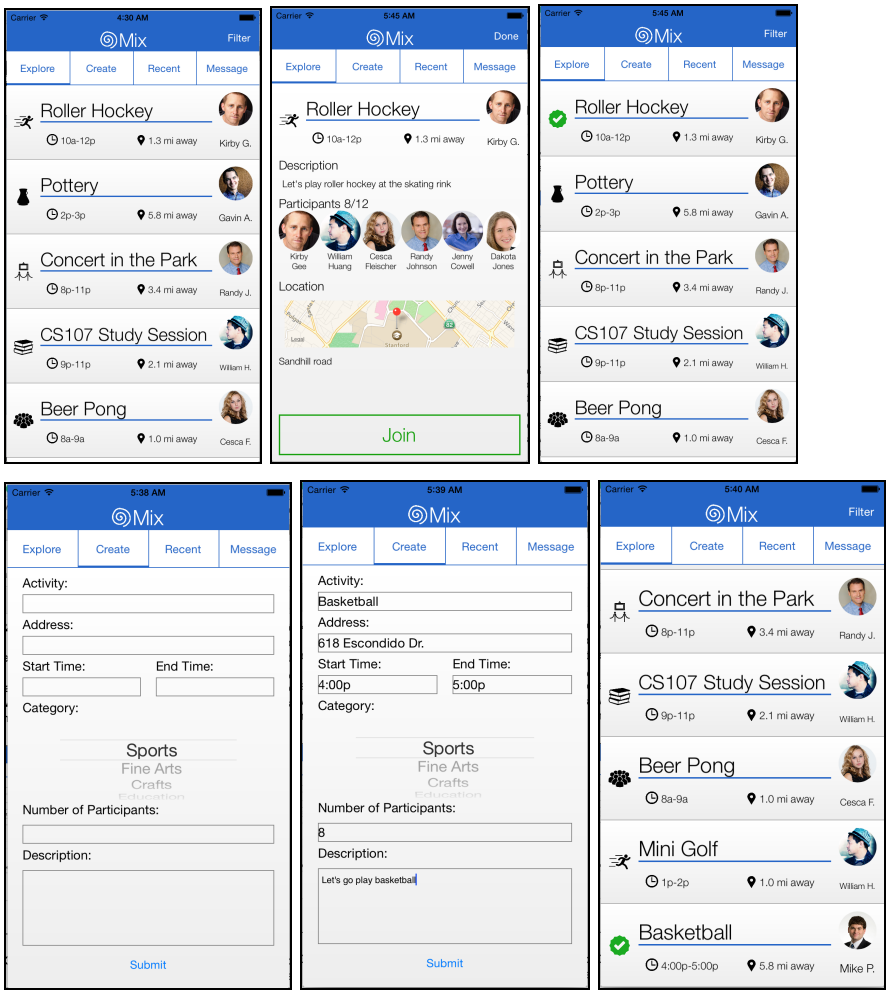


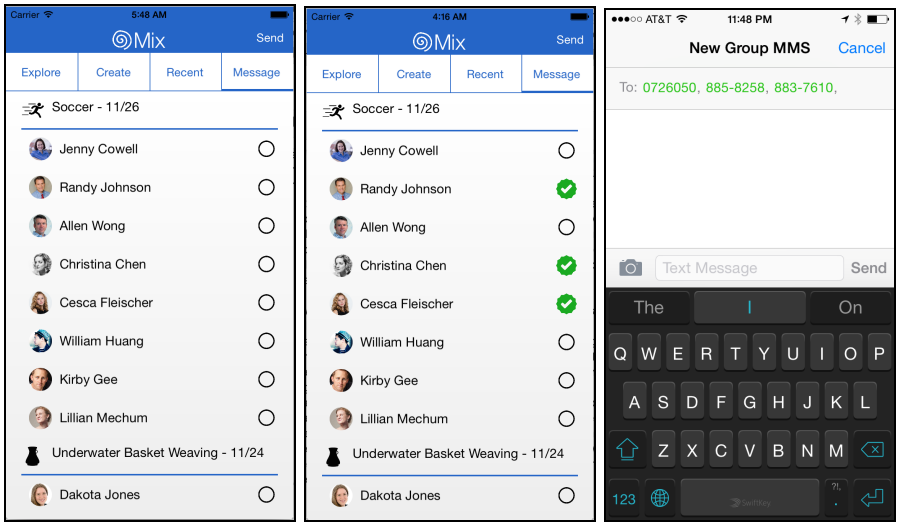


Iterating on the Medium-Fi Prototype, we made changes based off our user tests through a functioning Low-Fi Prototype on our phone built using POP - prototyping on paper. Through our user tests, we identified a couple key UI mistakes we overlooked that made the app slightly more confusing. When users were asked to stay in touch with their friends using the Low-Fi, almost all users tapped the “Past” tab rather than the “Friends” tab. This meant that there wasn’t enough distinction in the two tabs. We iterated on that issue and replaced the “Friends” and “Past” with “Messages” and “Recents.” We thought this made it much clearer what each one of the two tabs was specialized to do. Users also commented that the app wasn’t personal enough. Since it’s an app that allows humans to interact with each other, users wanted to see more customization. Thus, we added a personals tab where a user could

hypothetically add their picture, phone number, and perhaps a short blurb about themselves as well.

High-Fi Prototype - Three Tasks





Finally, the changes from the Medium-Fi Prototype to the High-Fi Prototype was based on the errors found in the heuristic evaluations. We focused on the severe errors and made changes to the UI and design based off of those. A couple highlight errors that resulted in UI changes were: inability to unjoin an activity, filtering being too hard to find, and the lack of message control. In our Medium-Fi Prototype, users could join an activity but had no option of unjoining if an emergency pops up. This was an important UI change, as undo-ing a mistake is something we should be wary of. Filtering was too many clicks away. It was hidden inside personal, which did not make much sense because it should be minimal clicks away from the very activities that it directly affects. This caused us to change the filtering to be one click away from the tab with all activities. Lastly, messaging in the Medium-Fi Prototype did not allow for customization or control on the users' end. Due to this, we changed it so that the user can choose who to message, be it groups or individuals.

Prototype Implementation

For our hi-fi prototype, we used XCode to build a completely native iOS application. This was incredibly useful because since it's an actual iOS application building environment, we were able to actually implement many more things that we were forced to hardcode in for the medium-fi. For example, for creating an activity, the text fields in the medium-fi that were filled in by our own pre-made text can now be filled in by actual user input in our hi-fi. The new activity created is now based on the user's own words. XCode also allowed us to play around with animations and transitions, again something missing from our medium-fi prototype. This allowed our prototype to better simulate an important part of a real app, as transitions and animations are major design decisions as well. One last way that XCode helped is that we were able to take advantage of multiple existing APIs. For example, the map view in an activity is able to be a real geocoded location based on the address of the activity, and the messages tab allowed the user to actually link their messages to SMS and iMessaging. This

simply made our prototype another step closer to a real implementation of the final app product.

There were also multiple ways that XCode was not helpful, however. Since we built the app completely native, we had no database backing it up. Because we had so many image and map assets, we had memory pressure multiple times throughout our development process because of too many allocations. This would occasionally crash the app entirely. Overall, building the hi-fi prototype was a much slower development process than the medium-fi and low-fi for obvious reasons. There were times where buggy code prevented us from iterating fast enough on the prototype.

There was still some wizard-of-oz techniques and hard-coded data in the final prototype. Because we thought that building in a login screen would be less valuable than implementing other features of the app, we hard-coded the logged in person as “Mike Precup.” Every time the user clicked join or create, it would be under this name. Another hard-coded aspect of the app was the existing activities on the “Explore” page. It makes sense that when a user logs in, he or she will see some existing activities already created by others around the area. This data was hard-coded in, as well as the participants already joined. The past activities on the “Recents” tab was hard-coded in as well.

A couple features that are missing to the app that we would add in the future are more filters, a settings tab, and some type of host security system. Currently, we only have filters by category. In the future with a more sophisticated implementation of the app, we would like to include more detailed filters, such as filtering for distance or time slot. These extra filters would be incredibly helpful, but we did not have the time to implement them. A settings tab makes sense so users can see the status of their accounts (phone app standard). Among other things, this page could include a photo upload option and a short bio field. Lastly, some type of host security system would be very useful. Since this app is almost like an Uber for activities, there should be some way to verify the safety of the hosts. We decided against implementing a star system as explained above, but in the future there should still exist some way to verify host safety.