Quest
Low-fi Prototyping & Pilot Usability Testing
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I. Value Proposition
Break New Ground. Meet New people. Tighten Your Community.

II. Problem and Solution Overview
Many people find it very hard to find, and participate in local communities that they're interested in without fear and concern of safety. With Quest, we ease all the process by gathering information on existing verified communities, pinpoint locations of meetings and events, and allowing users to broadcast their own activities or talents through their social circle all in one platform.
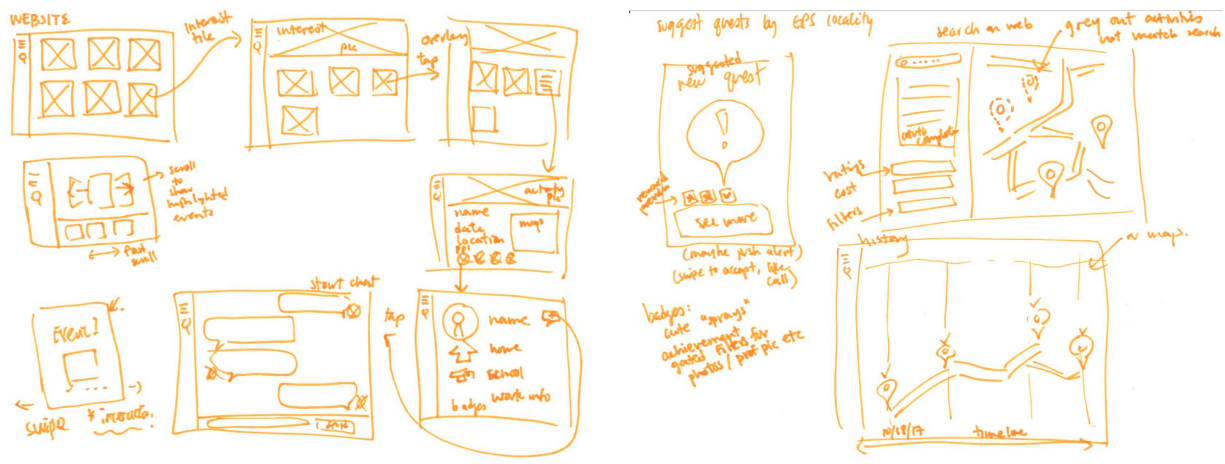
III. Sketches
Concept Sketches

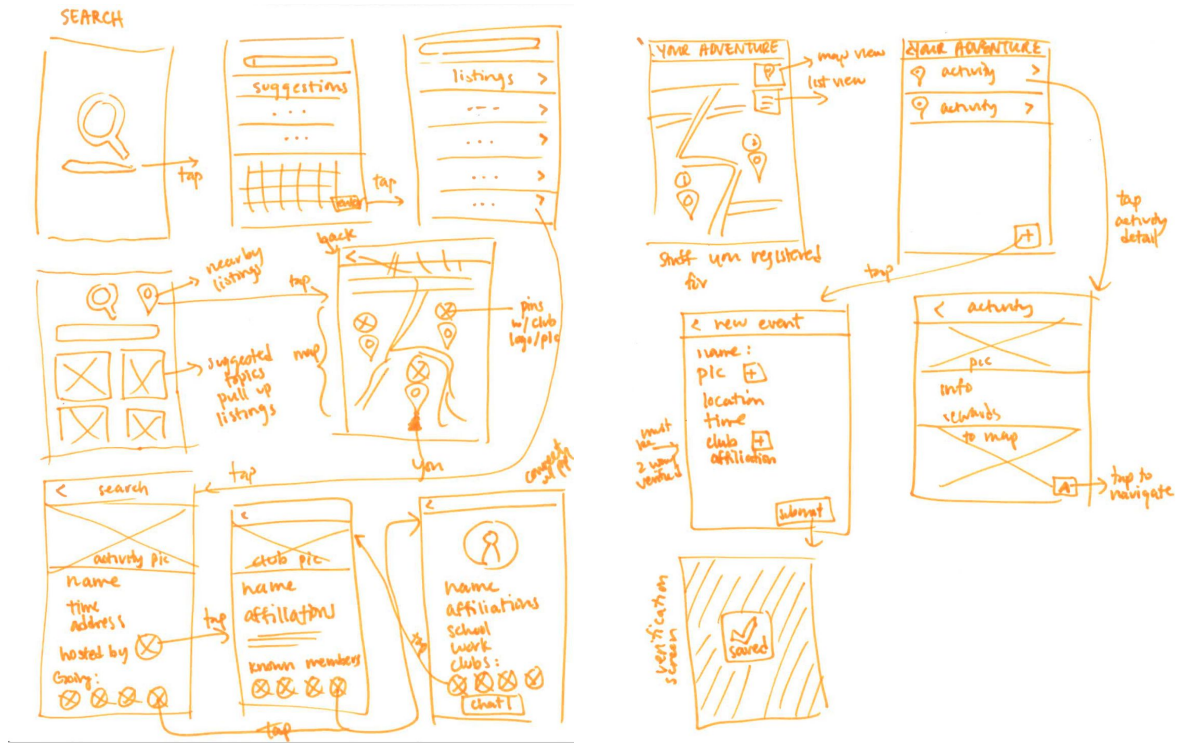**Figure 1: Concept Sketch on Website Interface**

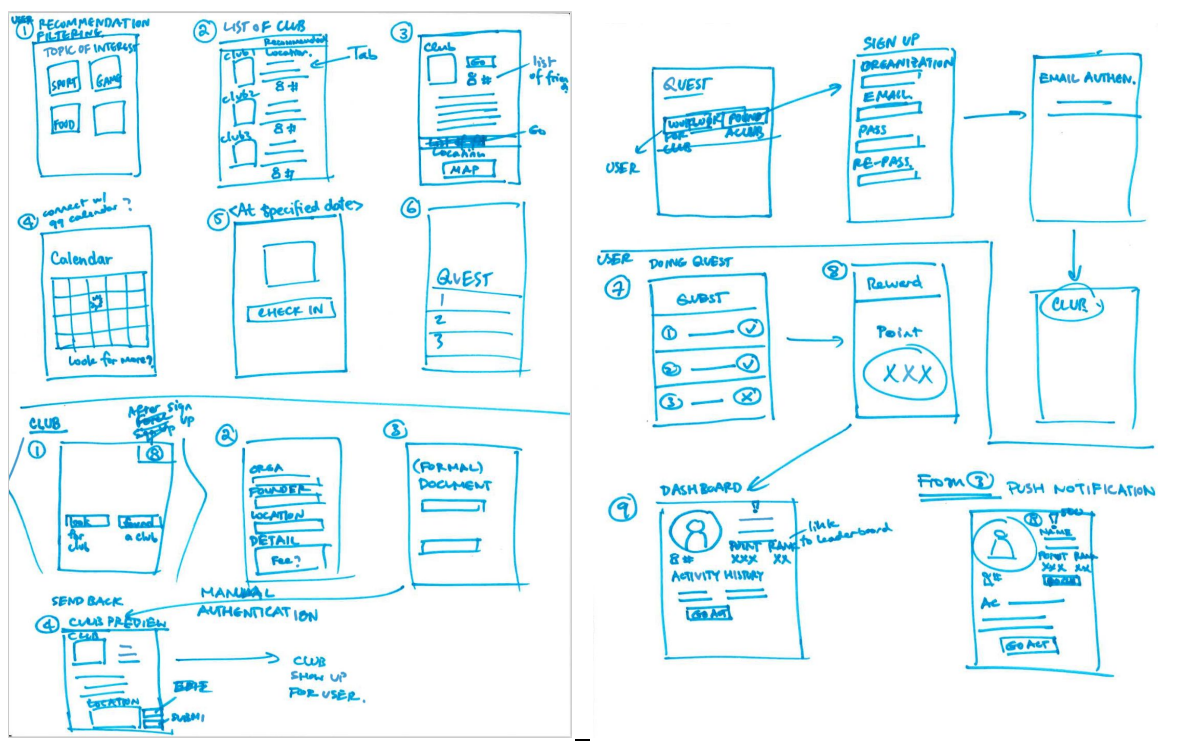**Figure 2: Concept Sketch on Club Searching in Mobile application**

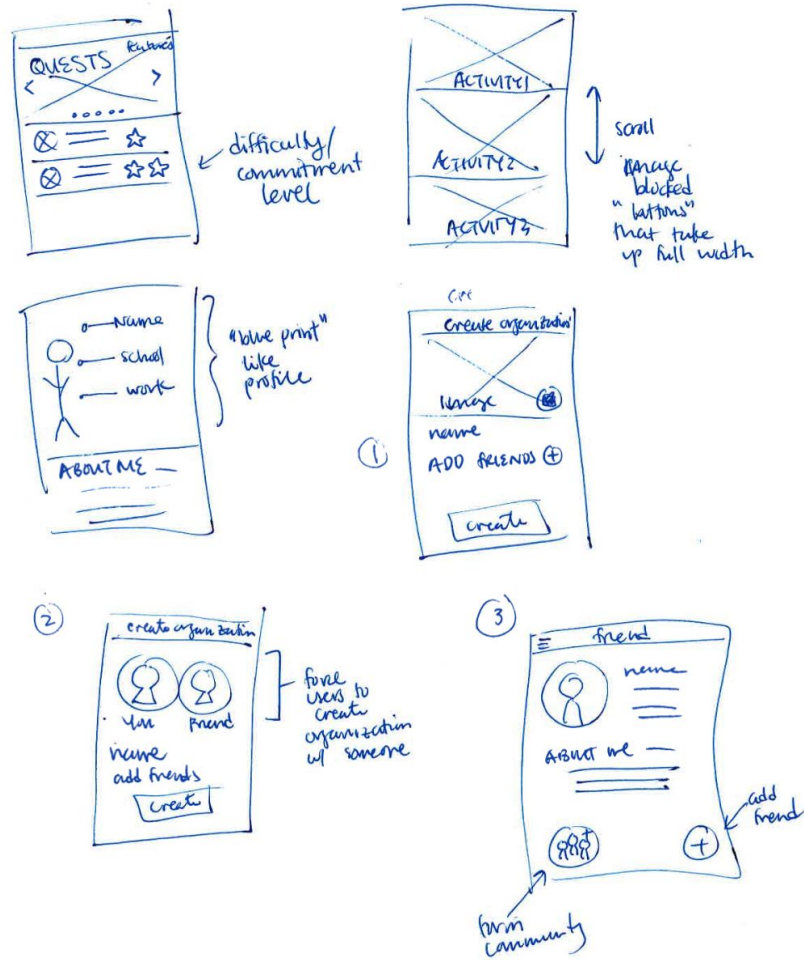

Figure 3 Concept Sketches on Club Searching and Club Founding

Top Two UI Sketches

  Our first UI sketch (see Figure 4) features the search on local community. Users can insert key word or any relevant text such as club or event, if they visit the application with a preset mind. In addition, users can have a quick look on all clubs in the nearby area using search by location on top right corner of first sketch. However, in case that users are not used to mobile application, they can simply select the suggested topic of interest shown below the search. In short, this sketch shows three different ways that user can interact with our application to search existing clubs/communities.

Figure 4 Top UI Sketch on club searching with text input, category, and location

  Our second UI sketch (see Figure 5) features on how to found the club in mobile application in two different ways. First, users can select club founding button in user's dashboard and ask their friends to join the club. Second, users can click on form community button on the lower left corner of friend's profile page. Notice that to form a club, club founder must have a certain number of friends and all founding team of the club must be friend with founder. After filling in all the club formation, users can simply click submit which will send a request for approval to our database.

Figure 5 Top UI Sketch on club founding with friends

IV. Selected Interface Design
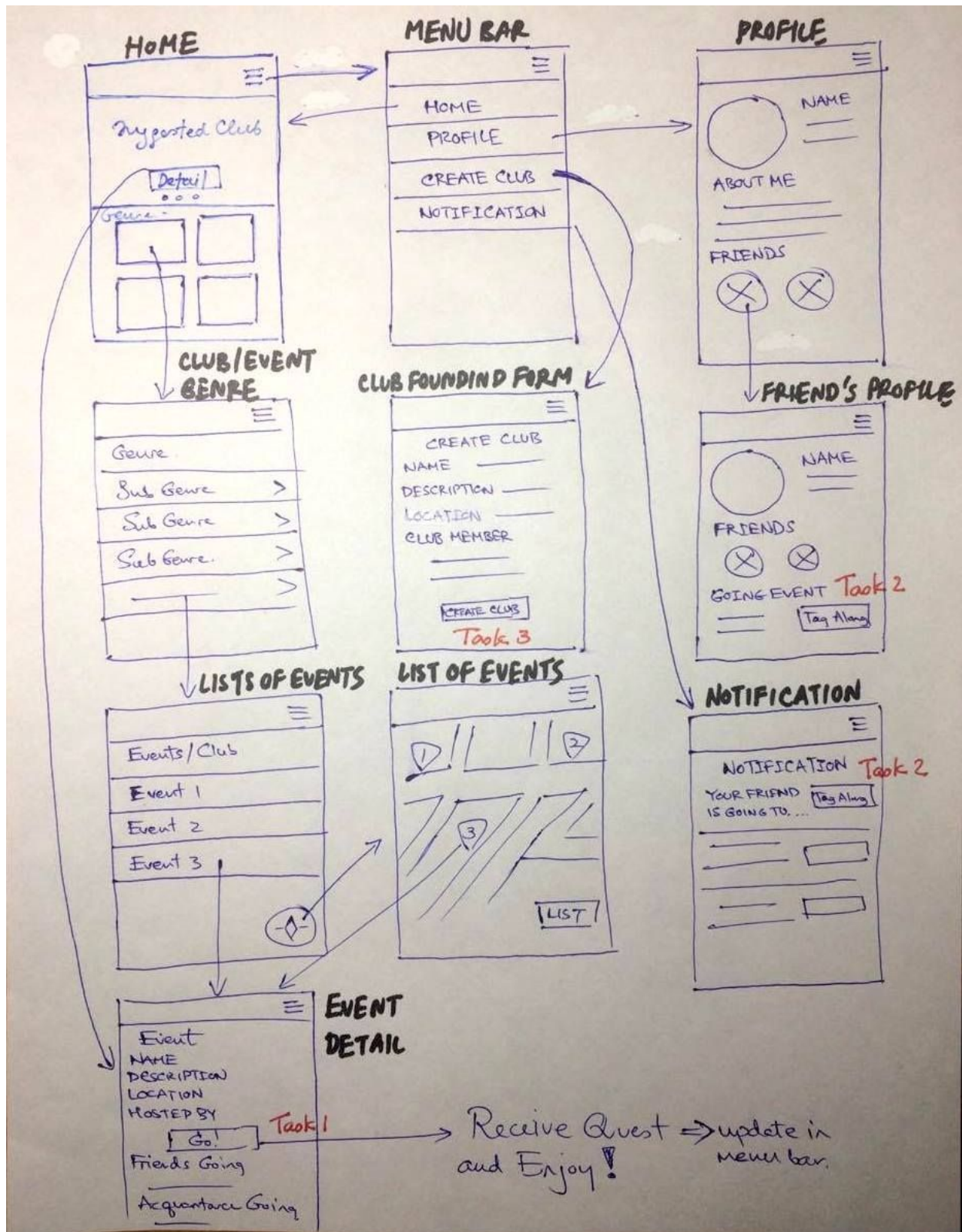<u>Task Storyboard</u>

Figure 6: Task Storyboard

Reasoning for selection

We combine the strength of our top two UI sketches and our studio leader's advice to come up with a new storyboard. The reason behind this storyboard is as follow:

- In UI Sketch, we offer many options for users to search for an existing club. These multiple options might be very overwhelming to the new user. Hence, we remove the option that require most effort – search by text input – from the home page.
- We offer suggested activities as the first sight to our application because people will have least efforts to join the existing club (only two clicks) if it matches their interest.
- We observe the behavior of our team when performing random tasks from a website. We notice that when people don't know where shall we go to perform a specific task, their first action is to enter the menu bar and see if it contains the options they want. From this storyboard, user can do all tasks by entering the menu bar.
- From our past interview, we learn that people are more likely to join an event if their friend also join the event. Thus, a clear tag along button in the friend's profile and the notification is very effective.
- Users like to see visual image (e.g. map) more than a list of text.
- Since users are least likely to create a club, it might be too offensive to put create club button as shown in our top UI sketch. In this storyboard, we simply move this option to be in menu bar.

V. Prototype

Figure 7: Paper Prototype – Home page

This home page contains the suggested club or event in the yellow paper. User can either swipe left or right to look for more suggested activities. For each activity, it contains the button indicating a quick link to join the event which intend to help user successfully find the club much faster. On the top right of the homepage (and every other page) will have the menu bar that help user navigate every option through our application (see figure 8). Below the suggested activity, there is a list of activity genre help users find more clubs that they might be interested in. The bottom left button is simply the goin back button for the phone.

Figure 8: Paper Prototype – Menu bar

This menu bar contains all options that the user can interact with our application. We will provide more details about profile, create club, and notification pages. (We consider that the other buttons are not as relevant to the test, although we actually have paper-prototype pages for all these buttons.)
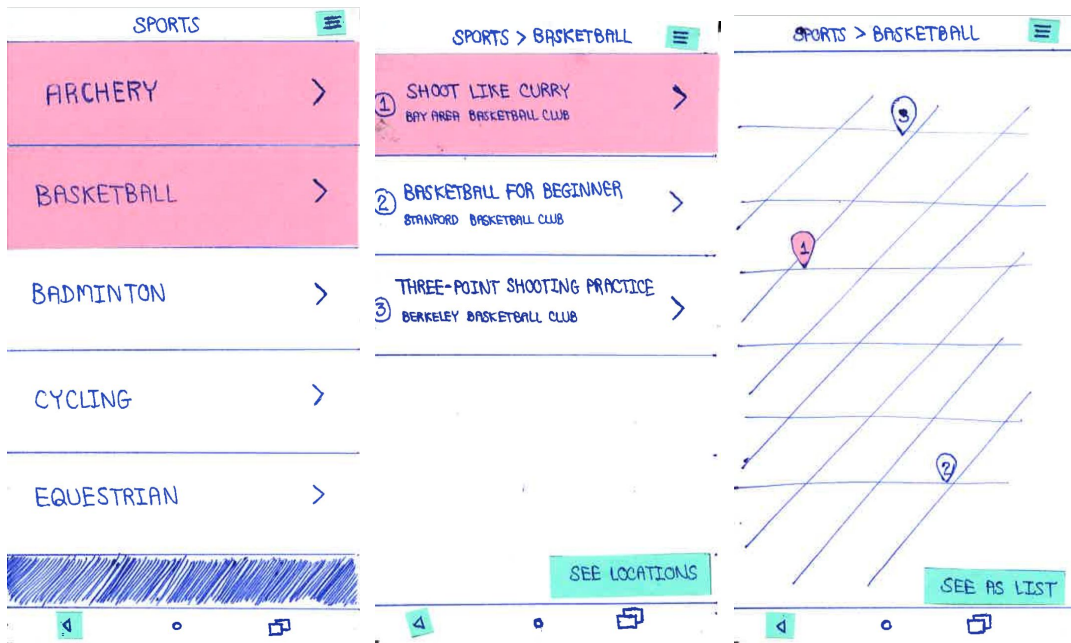
Figure 9: Paper Prototype – Activity Genre and List

The left screen in figure 9 shows the list of activity genres. Once one of the items is clicked, it will shows the list of activity available which can be toggled to view as location by clicking the button on the lower right corner.
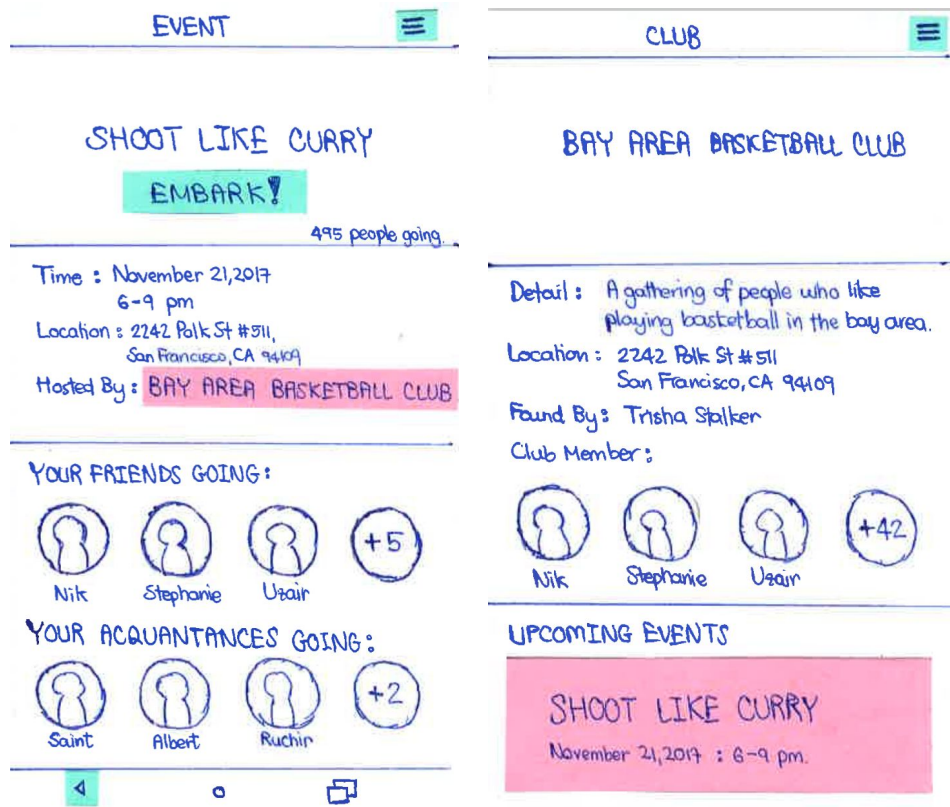
Figure 10: Paper Prototype – Event and Club Detail

The event details show event's date and time, location, and host club. The description of the event is optional since some event might be implicit included in the event name. Users can see the club detail to ensure the existing and to ease concern of safety. These two pages redirect to each other to encourage user to click on embark which is the end of Task 1. Note that this page can be directly accessed from the quick link in the home page.
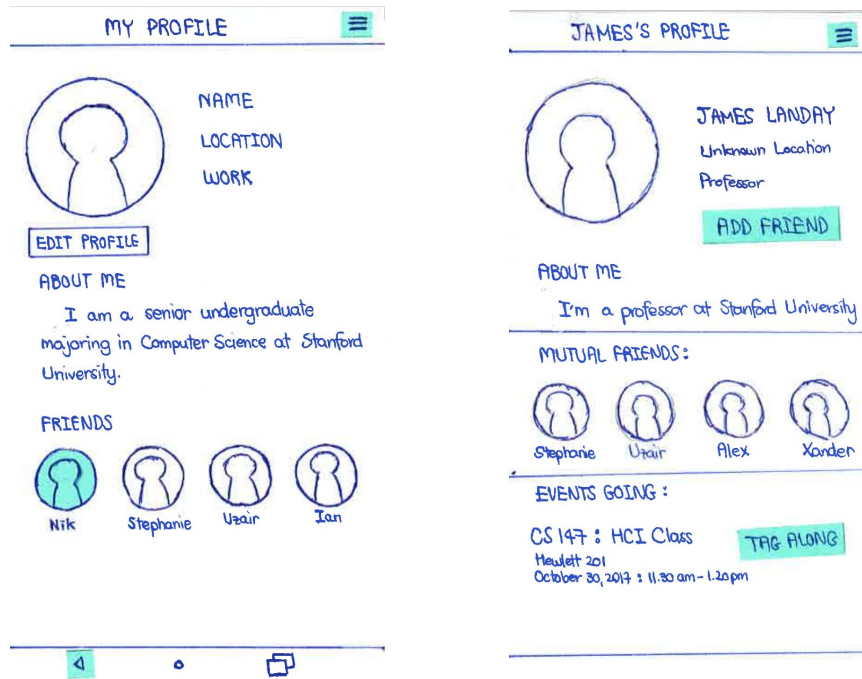

Figure 11: Paper Prototype – Friend and Acquaintance's Profile

To tag along with a friend to an event (Task 2), users can look through their friend list and see what events people have RSVP'd to. Note that the screen on the left side of the page can be accessed from the menu bar.
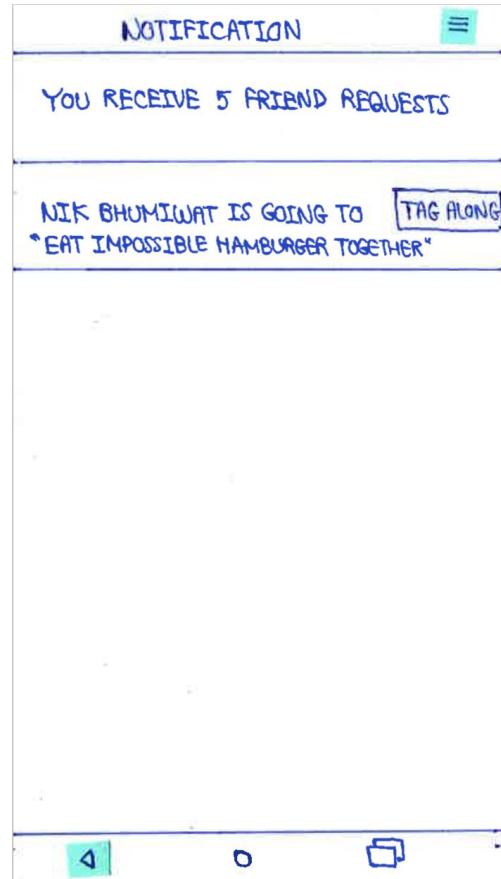
Figure 12: Paper Prototype – Notification

Other than looking friend's profile, users can achieve task 2 by looking at their notification and click on tag along with friends.
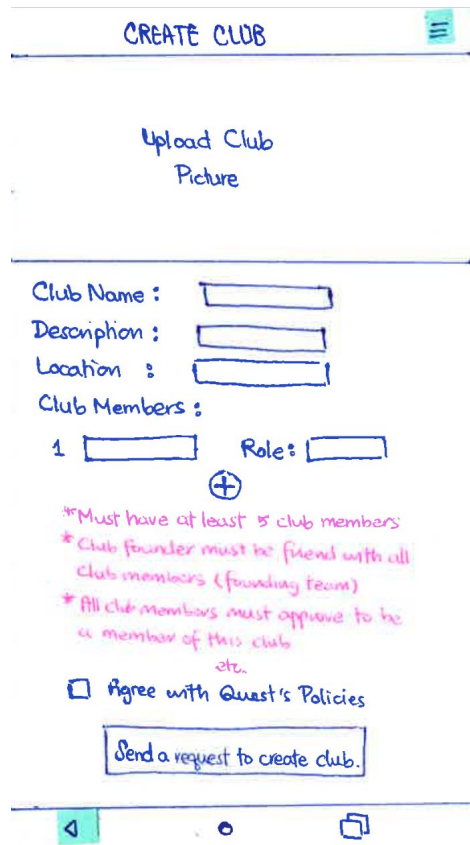
Figure 13: Paper Prototype – Club Founding Page

Users can achieve founding a club (Task 3) by navigating to the main menu and access this page. Though it's easy to access, it's more complex as there are many requirements to ensure the safety of people who will later go to their event.

*** Notice that the paper prototype is similar to our storyboard. If you feel confused with the flow, please see the flow of each page in the storyboard.

VI. Method

Environment

Our participants were recruited at Tresidder Union, where diverse people with different nationalities and background pass by. We interview one person at the black table outside the building and two persons at the table inside Stanford FedEx store. At both places, we decide to conduct interviews around 6 PM so that it was not too crowded, and our interviewees would not be distracted from performing our demo's tasks.

Participants

Participant 1 is a senior studying Biology who works at the Career Center. He is from Miami and likes video games, HBO, and hanging out with friends. The other two participants work at FedEx. Participant

2 is from Redwood City and likes hiking, museums, and hanging out with friends. Participant 3 is from Long Beach, and likes sports. Participants were not compensated for their time.

Procedure & Member Roles

Facilitator + Notetaker: Stephanie

Computer: Nik

For each participant, we asked for their time and to sign a consent form. Then, we read the following introduction and task script, as well as took notes as they performed tasks.
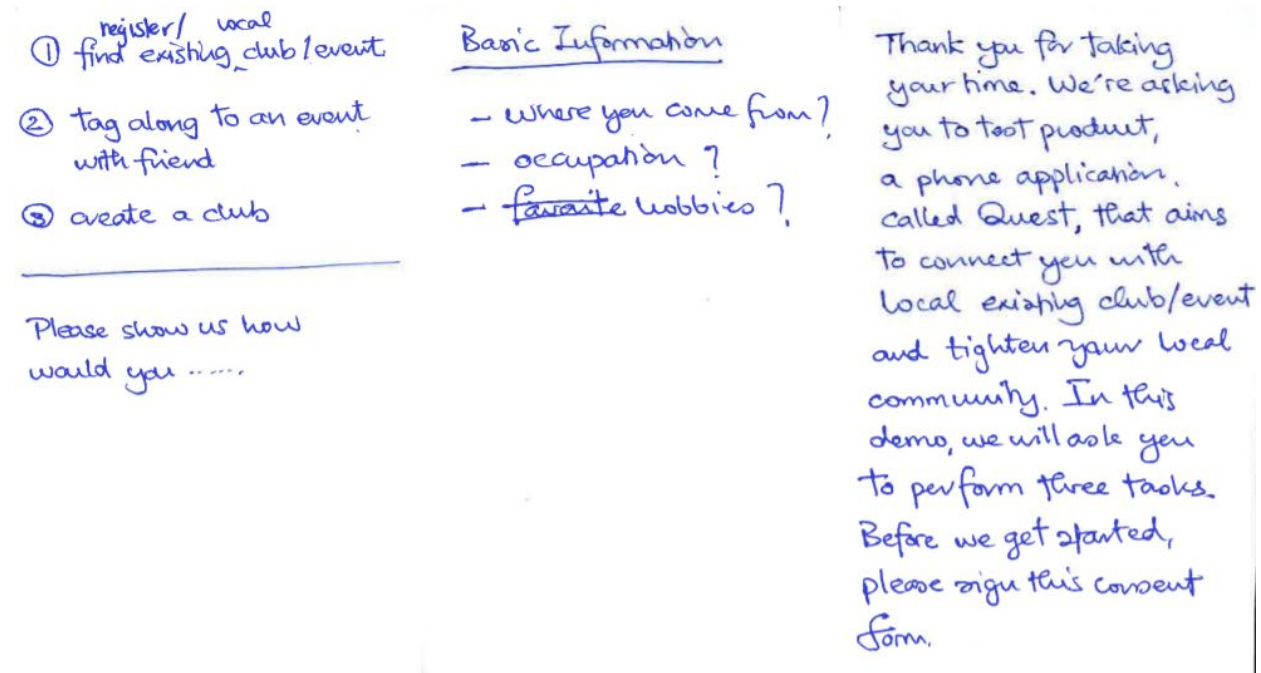

Figure 14: Experiment script cards

Tasks

1. **Register/find existing local club/event (simple) -- A typical task. We want to test which of our search features are typically used first.**
2. **Tag along to an event with a friend (moderate) -- we wanted to test how intuitive it is to "tag along" with a friend. This task includes finding a friend going to the same event as the participant.**
3. **Create a club (complex) -- not a typical task**

Test Measure

- **Points of confusion (e.g. participant asked facilitator for clarification) - If the UI was self-explanatory, we should not need to explain anything.**
- **Where participants got stuck or looped in actions - If a user paused for long or went through certain screens repeatedly, it's an indicator that maybe somewhere along the loop is a more intuitive method, rather than the one we have.**
- **Points where participants clicked on something else, rather than the intended button**

● We also noted any comments participants made as they interacted with the prototype.

VII. Results

<u>Participant #1</u>

For the first task, he tried to interact with non clickable buttons and tabs (that would have otherwise been clickable if all options were fully implemented). He went straight for one of the category buttons on the home screen and skipped the featured events slideshow. From the resulting list of activities, he pulled up the activity page and hesitated a moment before clicking the embark button. For the second task, he clicked a friend, but was unsure which friends were available to click. He went back 3 times between the activity page and friend profile page, saying "How would I send a notification to join me?" He never clicked the add icon on the profile. Task 3 went smoothly as pulling up the menu seemed natural.

<u>Participant #2</u>

For the first task, he also went straight to the category buttons and easily found the embark button. He double-tapped immediately though during delays between screens. For the second task, he went into the settings page (from the menu bar) 4 times trying to find a way to find friends. He cycled between going from the activity page to the menu bar to the settings page 3 times. He also tried looking through My Quests, events page, and back without success. He pulled up profile pages several times before finding the tag along button. Task 3 went smoothly.

<u>Participant #3</u>

For the first task, he also went straight to the category buttons and easily pulled up the activity page. He did ask the facilitator if the "embark" button was the right button to register for an event, saying "Is this how to register?" For the second task, he pulled up a friend profile and found the "tag along" button easily. He mentioned, "This is cool. I'd download it", referring to the app. Task 3 went smoothly.

VIII. Discussion

The overarching impression we formed from the interviews was that most aspects of our user interface are laid out in an intuitive manner. They also seemed to understand the problem we were looking to solve, and, by extension, the core value that the application would hold.

Interviewees were quickly able to grasp the tasks as well as find their bearing in navigating the application. However, it seemed that executing the second task (tagging along with a friend) seemed confusing to some of the users, who kept cycling through pages without being able to pinpoint the 'Tag Along' feature. Similarly, although interviewees were typically able to find and use

the 'Embark' button as expected, one of the participants asked the facilitator for guidance regarding whether this was the right button to press.

One potential solution for both of these potential issues involving buttons would be to add an introductory tutorial, and/or tooltips that appear over the buttons and explain their purpose. While we will strongly consider doing this as well, we feel that the user experience in itself must be intuitive enough to allow the user to navigate the application without necessarily requiring a tutorial. On a deeper level, we posit that both issues that came up with regard to buttons can be attributed to one of two reasons: firstly, while 'tag along' and 'embark' are fun names for features, perhaps they would seem too vague to people who are not acquainted with the application and its features; secondly, perhaps these button should be designed such that they are accompanied by explanatory icons, and stand out so the user's eyes are quickly drawn to them once they are on the right screen. The latter would be fairly easy to address in a higher-fidelity prototype, and will be something we shall target directly for our next iteration. As for the first possibility (that the button names might not be intuitive), we will consider renaming these buttons to words used more often in colloquial conversation.

Finally, it is also important to note that we could not have objectively answered the question of how safe users feel, because that is something related to actually following up with the event they RSVP'd to, which is difficult to simulate using a paper prototype which they know does not carry the weight of a commitment. However, users did seem interested in seeing which of their friends had signed up, which could be a positive sign regarding the system of establishing trust by following recommendations from friends/acquaintances.

APPENDIX
User Testing Heuristics

Problem	Location	Task Number	Severity	Possible Fix
Not sure how to contact friend to go to event	Profile page	2	2	Add some sort of confirm screen after tagging along to let user know the platform will take care of coordination/notification of friend Possibly integrate a messaging system?
"Tag Along"	Profile page	2	4	Make sure each

button is not intuitive				profile has a tag along button and that when hover/hold down button, tool tip appears. May be worth adding a find friend feature in the menu bar Can also consider renaming the button.
"Embark" button is not intuitive	Activity page	1	2	Rename button?

Raw Data

Participant #1

from miami florida
senior, study Biology
BEAM career center
– video games, watching HBO, hanging out w/ friends

Critical incidents
① 1. try to click on non-hot spots
   2. embark!

② click friends
   who is available to click? ——→ (didn't click
                                    user add icon
   ↳ went back III   on profile)

   →"how would a friend to..."   entran
      →"how would   "tag along"
         send a notification to join we?" ✓   no intuitive

③ no problems

Participant #2   ③ went through
                                         many profiles
   works at fedex   to find the tag
   from Redwood City, CA   along button
   born Stanford   ↑

   hobbies: hiking, visitng museums, hanging w/ friends

   ① doubletap on delay between screens

   ② want to settings multiple times (kept going into
                                       menu for task2)
                                    IIII   IIHt

③ early found   my quests → event → activity's quests → back
  via menu   eventually found friend page w/ tag along button

participant #3

works at fedex (manager)

from Long Beach, CA

hobbies: football, sports

① embark! → unsure if that's how to register

"is this how to register?"
(point to embark button)

② Tag along bottom ✓ (once we put it in)

③ ✓ no problems

"this is cool. I'd download it" → tagging along on interesting activity

Consent Form

Consent Form

The QUEST application is being produced as part of the coursework for Computer Science course CS 147 at Stanford University. Participants in experimental evaluation of the application provide data that is used to evaluate and modify the interface of QUEST Data will be collected by interview, observation and questionnaire.

Participation in this experiment is voluntary. Participants may withdraw themselves and their data at any time without fear of consequences. Concerns about the experiment may be discussed with the researchers (Pakapark Bhumiwat, Stephanie Tang, Uzair Navid Iftikhar) or with Professor James Landay, the instructor of CS 147:

James A. Landay
CS Department
Stanford University
650-498-8215
landay at cs.stanford.edu

Participant anonymity will be provided by the separate storage of names from data. Data will only be identified by participant number. No identifying information about the participants will be available to anyone except the student researchers and their supervisors/teaching staff.

I hereby acknowledge that I have been given an opportunity to ask questions about the nature of the experiment and my participation in it. I give my consent to have data collected on my behavior and opinions in relation to the QUEST experiment. I also give permission for images/video of me using the application to be used in presentations or publications as long as I am not personally identifiable in the images/video. I understand I may withdraw my permission at any time

Name _____

Participant Number _____

Date _____

Signature_____

Witness name _____

Witness signature_____