

PickUp

Task Analysis

CSE 440, Fall 2009

Team Members

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Problem and Solution Overview

As people plan casual sporting activities, one of their main tasks is to locate other people interested in participating at a mutually convenient time. At times, this becomes quite a challenge, since people generally depend on their existing social networks, which may or may not contain the people they're looking for. Additionally, coordinating such games with large groups of people is not a simple task. Our application seeks to improve upon the status quo by making it easier to find people with shared sporting interests, skill level, and compatible scheduling and location preferences.

Task Analysis Questions

1. *Who is going to use the system?*

Anyone who wants to organize or play in a pickup game. This can be individuals who are looking for other people to play sports with or groups looking for a system to organize games that may not fall on a regular schedule (for example, intramural teams that schedule practice games for their members).

2. *What tasks do they now perform?*

People use their existing methods of communication (eg. phone, text, Facebook) to call people and organize games. Additionally, people have learned what times that others frequent sports venues, such as the IMA, and show up at those times to form spontaneous games.

3. *What tasks are desired?*

Users desire the ability to more easily schedule games with groups of people whom they play with regularly. They also desire the ability to find games to play in and other people who hold similar interests with enough information provided so that they know more about their teammates or opponents prior to committing to a game. Currently, using their phones, users find it time-consuming to confirm commitments with each person who might be playing in a game, and therefore would like a better mechanism of doing so.

4. *How are the tasks learned?*

In their current practices, these tasks do not involve any additional training beyond the sport to be played itself -- users rely on their existing social networks and means of communication to organize these games.

5. Where are the tasks performed?

The organization of pickup games can happen anywhere and the games themselves generally take place at sporting venues, both indoors and outdoors. More specifically, the organization of games mostly happens prior to the event from the user's home, where they do have access to a mobile device. In many cases, they may not bring the device with them to the sporting venue.

6. What's the relationship between customer & data?

The customer accesses the data via our application on their own mobile device. Much personal data is shared between users, including personal interests and scheduling data. There is also general data provided by the application to users including venue information, which may be user-generated content.

7. What other tools does the customer have?

Currently, the customer uses existing methods of communication (eg. phone, text, Facebook) to call people and organize games. Additionally, many customers rely on entirely different means of organized sporting, such as intramural sports, in the absence of a satisfactory means of organizing pickup games.

8. How do customers communicate with each other?

Customers can continue to use their existing methods of communication. In addition, our application allows a means for customers to discuss individual games and communicate person-to-person via text messaging.

9. How often are the tasks performed?

Active users of the service will organize and participate in games multiple times per week. Less active users may use it a few times per month or even per year.

10. What are the time constraints on the tasks?

Game organizers will have to give participants enough time to respond to an invitation, or for enough people to find the game through the service. How long this takes depends primarily on how many people are actively using the service. Additionally, when people are looking to play games spontaneously, they will need to be able to find games immediately for the service to be useful.

11. What happens when things go wrong?

In the worst-case scenario, a user might show up to a game organized in advance through the service and find that no one else has come. At this point, they might wait and eventually leave due to frustration or use the service to check if there was an update regarding that particular game or if there are other ongoing games nearby. The service also provides the user with the ability to leave feedback about others -- in this case it would be negative feedback because they did not follow through with their commitment.

Revised Tasks

In the contextual inquiry phase, we deliberately chose tasks which covered a broad scope of potential use cases in order to gain a sense of how they are currently accomplished today. After further evaluation, we have chosen three tasks which reflect

individual stages of the overarching use cases of *organizing* and *participating* in pickup sports games.

1. Create and organize a team game

This is our most difficult task out of the three. First of all, it requires creating and gathering a team of your own, contacting individuals and making sure everyone's in the loop. Then, you have to find a viable team to play against. They must be have a comparable number of players, must be on or near the same skill level, must live near enough that you can meet with them, and lastly, they must be willing and able to accept your challenge. Then you must find a time and location that works for the maximum amount of people, or at least enough for a game to be viable. To do this, you must collect schedule information from all the players and pick the best time. Finally, you must then contact everyone again, informing them of the selected time and requesting confirmation that they can show up. If enough people confirm for a game to be viable, then you're good to go.

2. Find a pickup game to participate in, as an individual

This one is our medium-difficulty task. It involves simply finding a pickup game that you can join in or have heard of ahead of time. This can be accomplished by showing up at a location, hoping there will already be players there participating in games, or are themselves waiting for a game to start. The challenge lies in successfully finding these people, so it would be useful to use your prior knowledge of the venue and other people's habits to maximize your chances of finding a game.

3. Follow up on a game that previously took place

This is the easy task. After a game, if you found it both fun and challenging enough to be good practice, you may want to follow up with more games at a later date. This would involve trading contact info with the players involved, or at least one player from the other team if it is a team sport.

Specific scenarios for each of these tasks are outlined below.

Storyboards

Attached to this document are three storyboards and a "final" design synthesized from the three initial ones.

Selected Interface Design

The choice on our final interface design was chosen as a compilation of our three concept designs. As each of the three interfaces presented unique and effective aspects of our application, we decided it would be most effective to choose the best aspects of each design.

The Home Screen

The design for the home screen takes on many forms, reflecting the necessity to give the user quick access to many common features. In the event that a client has an upcoming game, the application will list the upcoming games chronologically. The client can then select a game from the list that provides information about the game. If they are done viewing their upcoming games, users can then select to look for more games

by selecting to search for more.

Otherwise, if no new games are present, the client will be automatically directed to the map screen. The thought process behind this was the idea that once users open the application, they will typically either want to check information about a game, or search to find a new game.

Main Menu Navigation

Our main menu resides on the bottom of the screen, with separate buttons to divide up various sections of our application. The choice to put this menu on the bottom was driven by two major factors. The first is the ease of being able to push these buttons.

Buttons located on the top of the screen take much more deliberate energy than ones located on the bottom. We wanted users to be able to quickly access different portions of the application. Secondly, this helps to avoid obstruction of the screen due to the hand having to press menu buttons on the top. This allows the user to see what is happening when they press a button.

Each of the tabs were decided upon based on their importance and whether they covered a different aspect of the application.

Profiles

The profile screen was chosen out of a need to not only help people connect with one another, but to allow clients to organize their own games and information.

Creating connections, we discovered, is key in successfully developing effective pickup games. Our interviews indicated that many individuals either played with friends they knew, or would frequent the same venue, finding the same individuals to play with.

Therefore, profiles can be viewed by others to discover similar interests and increase the chances of a successful pickup game.

Organizing client information is also important and helps to ease the cumbersome task of searching for games and keeping track of current games. With a profile, our application's system can keep track of a client's current games, sending them reminders (back on the home screen). It can also help to ease the task of finding new games by filtering out undesired results from searches.

Taking cues from other networking based sites (Facebook, MySpace), we developed our profile page. An image is located at the top, along with the name of the individual.

Below that includes contact information (phone number, email address, etc), sports they participate in, favorite venues, and experience in playing sports.

Search - Map

As searching for pickup games is our primary focus, it needed to be easy to use, fast, and intuitive. A map style interface was chosen as our primary mode of searching for games. Maps are fairly intuitive, giving visual cues regarding the location and sport that is being played. With prior technology implemented by companies like Google, clients are already familiar with the interface and use of a map type of search.

The map itself contains small tabs with images corresponding to different sports that are being played at particular venues indicated on the map. Small tabs are important to prevent the map being obstructed by too much information. The client can then touch the tab to open up a larger tab that provides information concerning the game, such as the location, the time, and number of confirmed individuals. If the client wants more detailed information about who is planning to attend the game, they can press the small arrow for additional information.

The bottom of the map also contains a small day calendar and slider for the selecting the time of day. This was decided upon because clients may want to check what pickup games are currently taking place in their area quickly. Selecting a time and day will also change the topography of the map, adding a dynamic but important aspect that helps clients to successfully find a pickup game at a time of their choice.

Search - List

To complement the map, a list interface for finding pickup games is also included. Lists allow neat organization and display of data. Clients can easily scroll through lists to find what they are looking for, selecting games to open up a window displaying more information.

The reasoning behind having two different interfaces is to try to facilitate searching in the easiest way possible. The approach to searching in these two forms is different. The map focuses on more visual on locale cues to find a game, while the list provides a larger, more organized approach.

Filter/Search

The filter is important to exclude unwanted information when the client is searching for games. The filter needs to be easily accessible, but also non intrusive to get in the way of finding a game. In each of the search methods, a little tab is located on the bottom that brings up a list of search filters. The client can then select different fields, such as sport or time, and apply the filter. The tab then shrinks, bringing back the screen with the current search method (map or list) listing games that conform to the search requirements.

Create a game

Creating a game a game is the other key aspect that this application facilitates. Following many positive design choices from Facebook, creating a game is fairly straight forward. A name is given for the game, a type of sport, the time, and location among other things. The client can then choose to invite people, or simply leave the game open for others to freely join. Following parallels to how current pickup games are organized, friend invitation seems to be the start to many successful games. Our data concluded that most individuals started pickup games with a few friends, where others would join in.

The Schedule

To create a successful team of people, scheduling between participants is key. Research showed that organizing times for practices and games was particular difficult, especially with larger groups as it takes a large amount of coordination between player and organizer. The schedule is a simple time block interface in a grid formation. This design option was chosen due to its visually intuitive organization and and its ability to quickly reflect availability in a given week. Many are already familiar with these types of visual schedules and they are fairly easy to understand.

Reminders

As it easy to forget a game you've committed to early in the week, reminders are sent out to those who have confirmed. This feature not only helps the user to remember that he or she has a game to go to, but also helps to increase the success of pickup games due to the attendance of those who committed to going.

Scenarios

Scenario 1: Creating and organizing a team game (volleyball)

Sally has a group of friends she likes to play volleyball with, and they're a pretty good team, but she wants to be able to find another team that they can play and practice against. She gets on Pickup, goes to the teams section, clicks 'create team' enters in the name, 'Pink Bunnies', writes a description, adds that they play volleyball, and invites

her friends that she plays with. She then clicks done and returns to the team screen. Later on, when her friends have confirmed they are on the team, she returns to the teams screen, does a search for volleyball teams in the local area with intermediate to advanced skills. A list comes up, she selects one to view its profile and presses challenge. On the next screen she selects volleyball for the sport, selects her team, confirms that she wants the other team as the opponent, and clicks 'request scheduling info' after selecting the range of dates for the game. The next time she gets on, she is notified that the other team has accepted the challenge, and that she has scheduling info for 13 of 16 players. She clicks 'View Info', and is taken to a screen with the selected date range, and a grid of times on those dates, within each block of time is displayed the number of people that are available at that time. The times with very few players are darkened, and the times with lots of players are bright, to serve as a quick visual aid. She sees that on Thursday 12 people are available from 530 to 730 PM, and that appears to be the best time to do it, so she selects that time, and hits 'create event' where she is taken to the create event screen. She fills in what info is still needed, such as the venue, and creates the event. She is notified that confirmation requests and reminders will be sent out, and she's done.

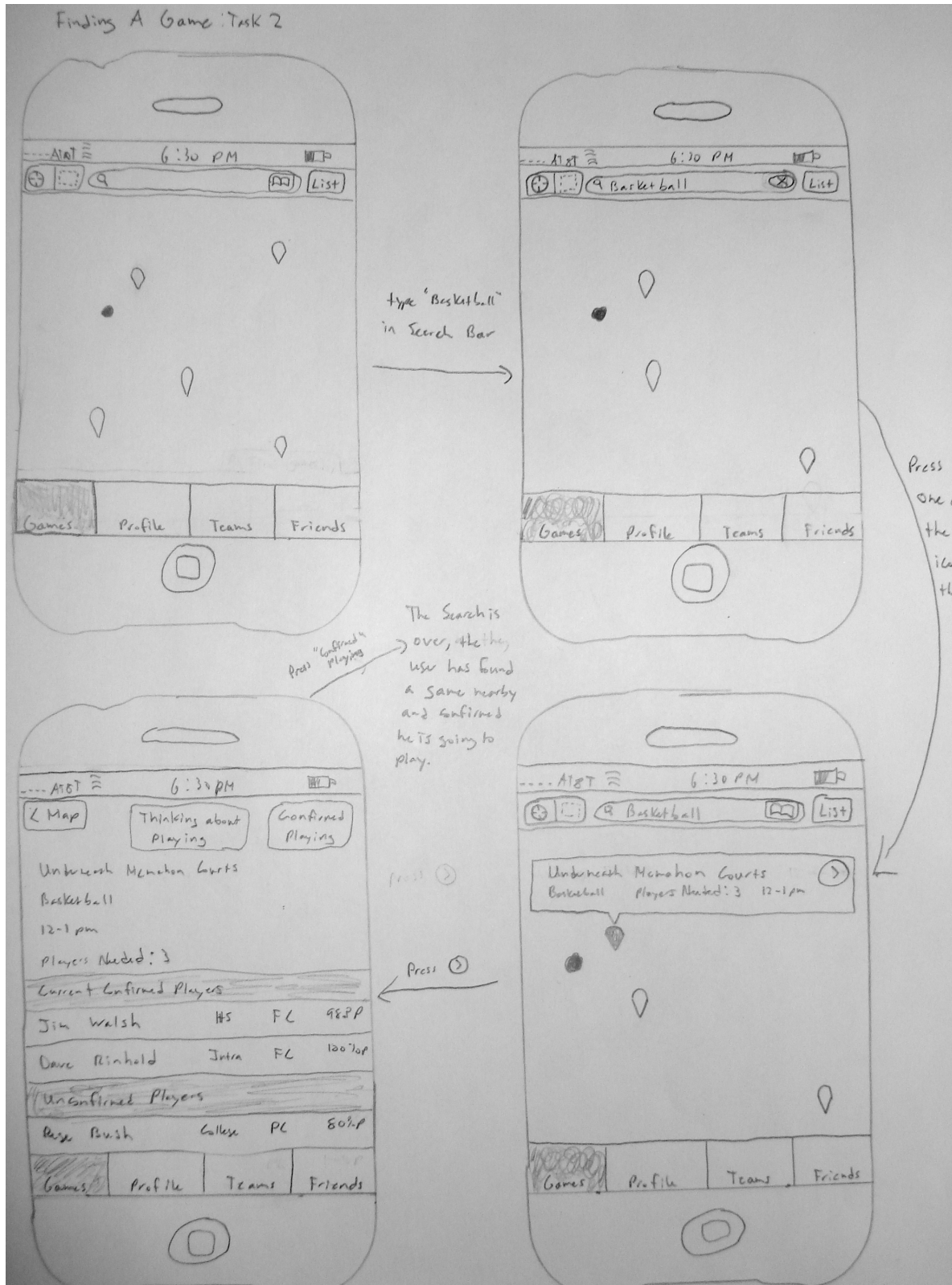
Scenario 2: Finding a pickup game (basketball) as an individual

Jim has the day off from work today, it's mid-afternoon and he wants to get out, enjoy the sunshine and play some hoops. All his friends are busy at work, so he gets on Pickup, and looks at what games are going on in the area. He sees a lot of icons on the map, so to narrow it down he types in 'basketball' in the search bar, and there's still a few games open. He wants to find one that's a good match for him though, so he goes into the more detailed search options, checks off that he wants to play against people whose experience is at the high school level, and that he wants to play a 'fun competitive' game. There's still a game nearby him at the IMA with just those characteristics, and so he views it's info, confirms he's coming, and heads out the door.

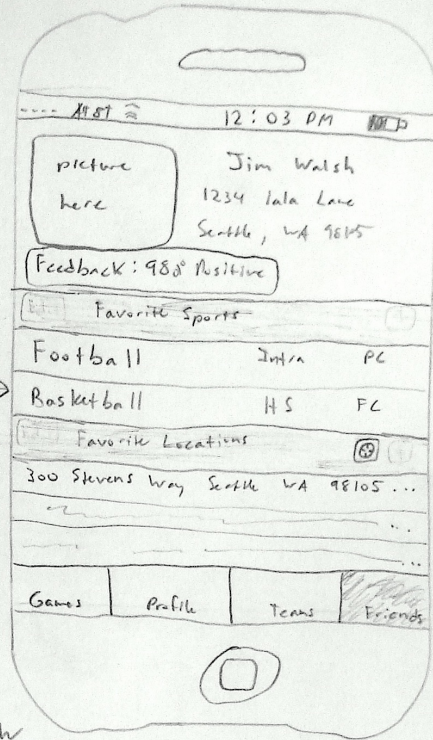
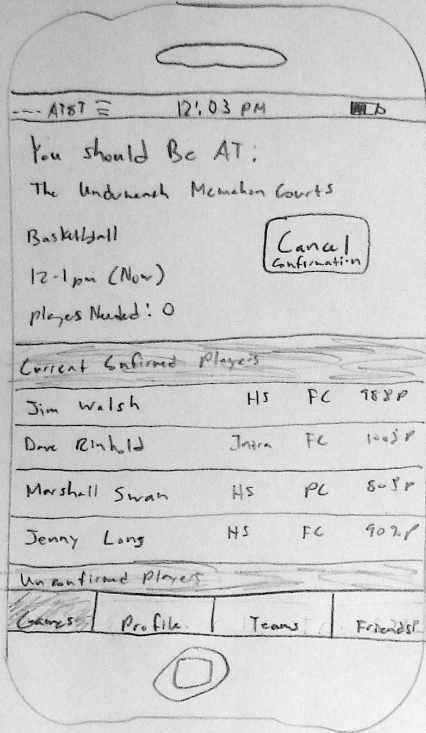
Scenario 3: Post-game follow up--keeping in touch and providing feedback

John just got done playing a game of basketball, and he wants to leave some feedback about Jim, another player he was playing with. He found Jim very friendly and constructive in building other players skills. So he goes to 'My Events', and selects from the list the event he just played. The list of players for that game is displayed there. He taps on Jim's name, and his profile is displayed. There is a feedback button towards the top, displaying that he has 98% positive feedback. John taps the button, where all feedback for Jim is displayed, both positive and negative, as well as comments that people have left with their feedback. John clicks 'Add feedback', is taken to a screen where he can select positive or negative at the top (selects positive), enters in his comments below, and presses 'Done'. Now his feedback is available for all other players to see when they view his profile.

Storyboard 1



Giving Feedback: Task 3

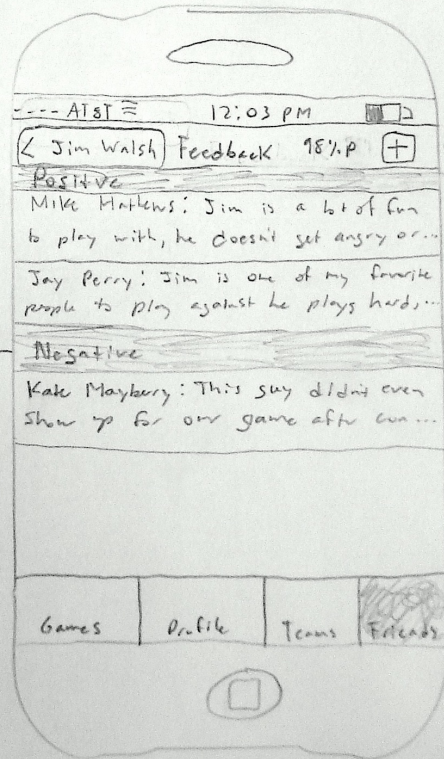
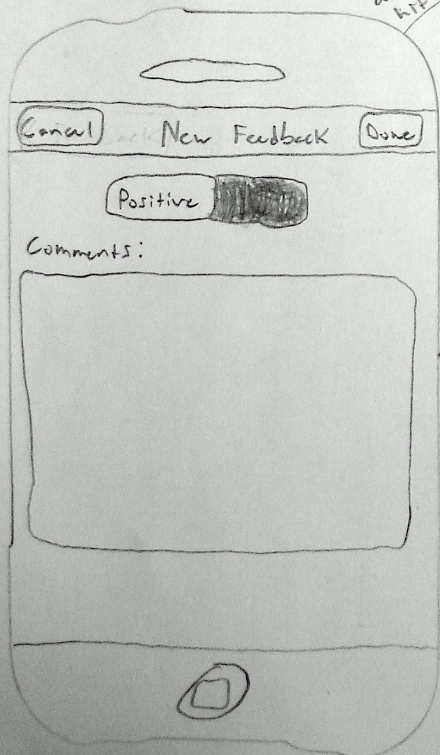


Press "Jim Walsh" row

Press "Feedback: 98.8% Positive" button

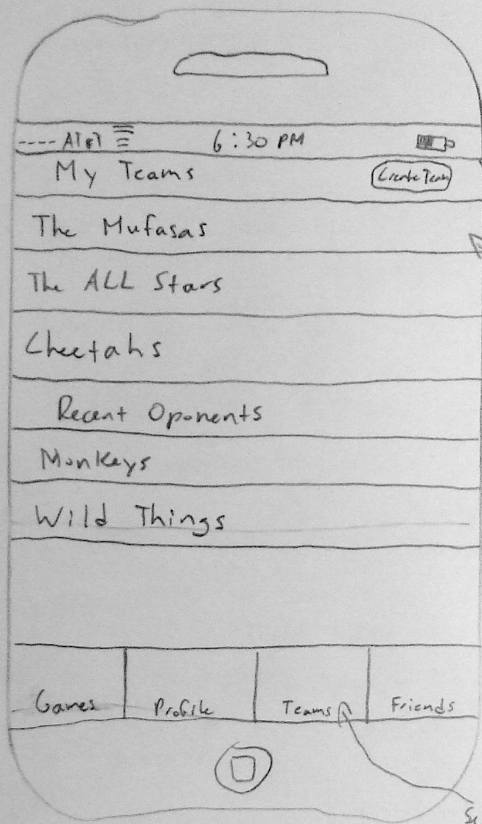
The user has now finished giving another user feedback.

Write some comments and hit Done

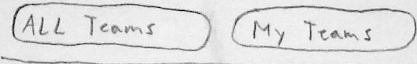


Press +

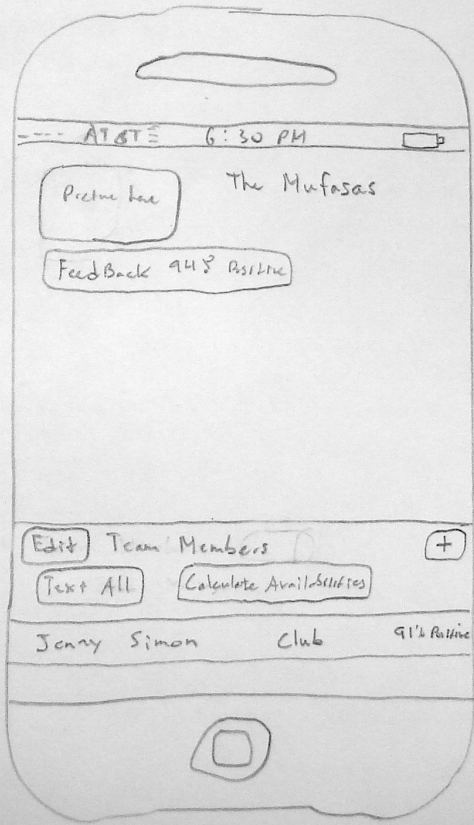
Note there should already be some positive feedback if he has 98.8% positive. Yes I can do more.



View
What teams I am a member of
What teams I am a Captain of
When do team messages show up?

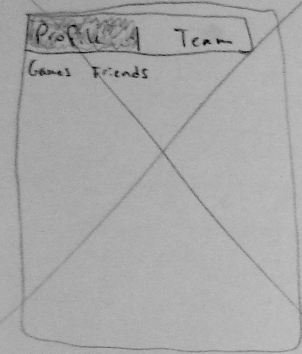


works like in safari on the iphone

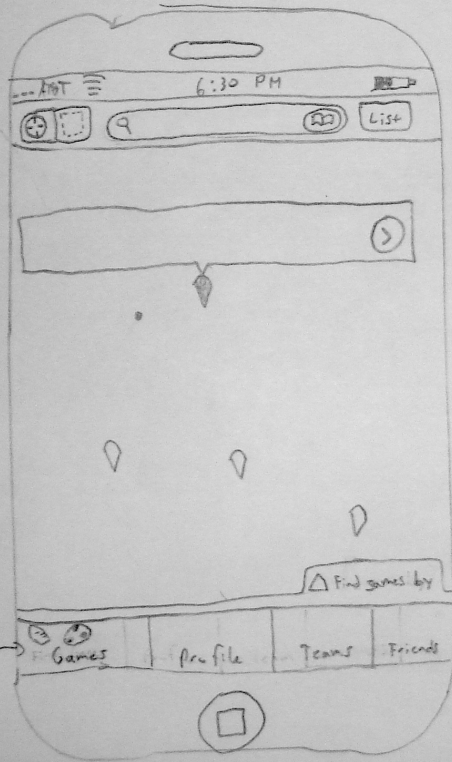
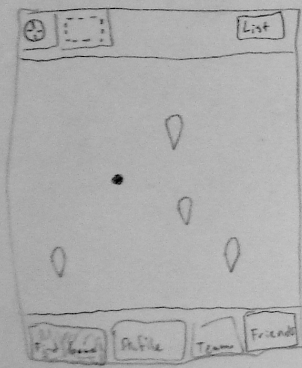
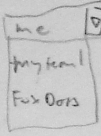


How to solve the issue

How to save tasks in 2 contexts under one user profile



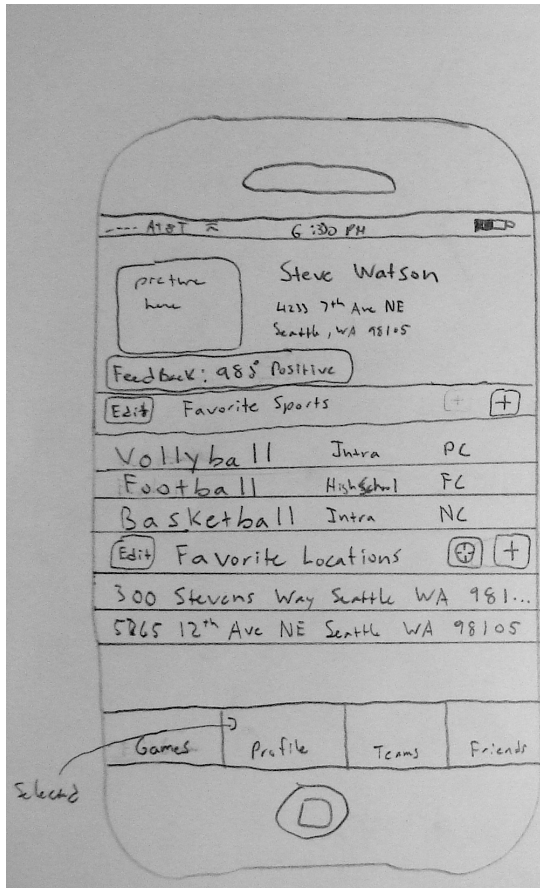
Or in my page have it
So find games for



where should time slider go?

how should teams on map be stored or link 1/16?

what info should go in popup?



Tasks on Profile page

Edit

- pictures
- general information (name, address)
- Favorite Sports
- Favorite Locations
- Schedule?
- Skill and Seriousness?

View

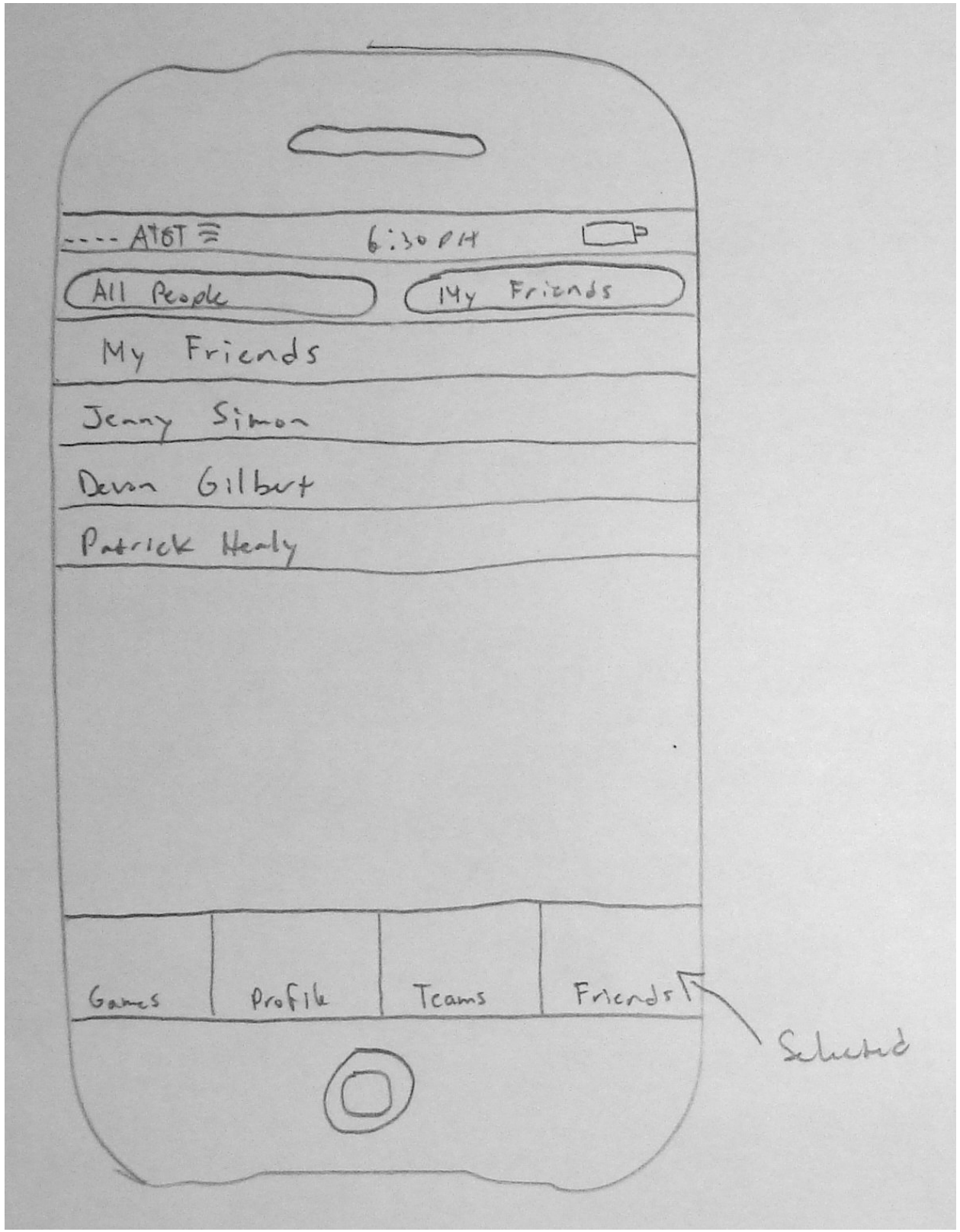
- o pictures
- o general info
- o Favorite Sports
- o Favorite Locations
- o Schedule?
- o Skill and Seriousness?
- o Teams member of
- o Teams Captain of
- o Recent games
- o Feedback from others?
- o Friends

Should there be a place to post (facebook wall)?

Experience level as opposed to skill level

- Played ^{multiple} ~~times~~ ^{times} ~~times~~ Seriousness
- Intramural not competitive
- High School fun competitive
- Club pridefully competitive
- College

Selected



--- AT&T

6:30 PM



All People

My Friends

My Friends

Jenny Simon

Deron Gilbert

Patrick Healy

Games

Profile

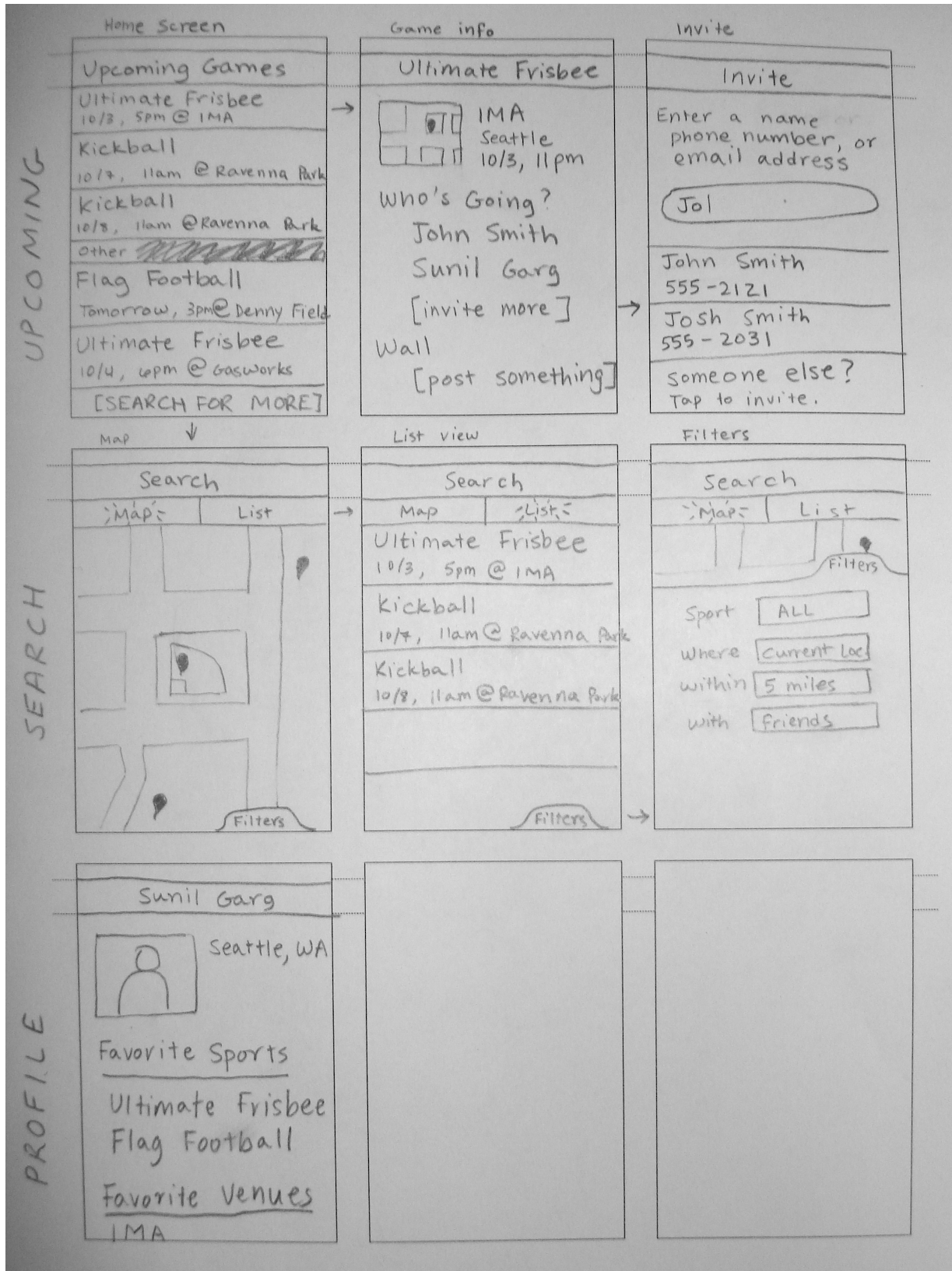
Teams

Friends

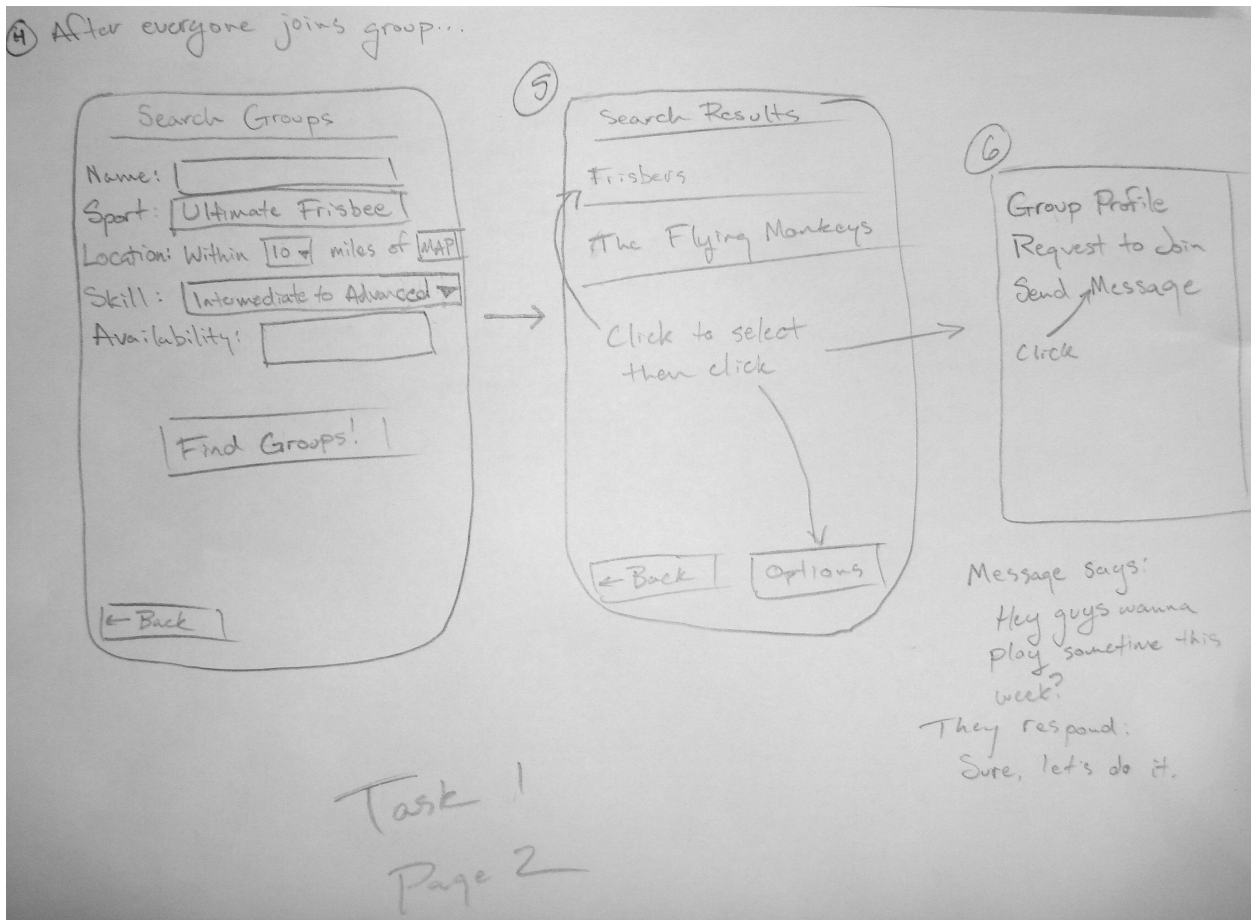
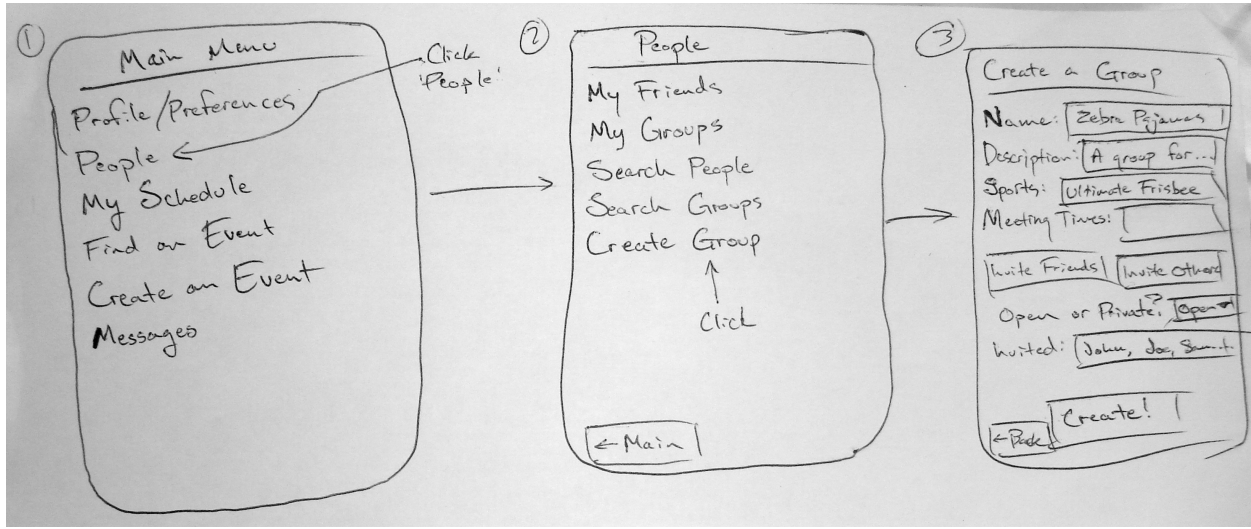
Selected



Storyboard 2

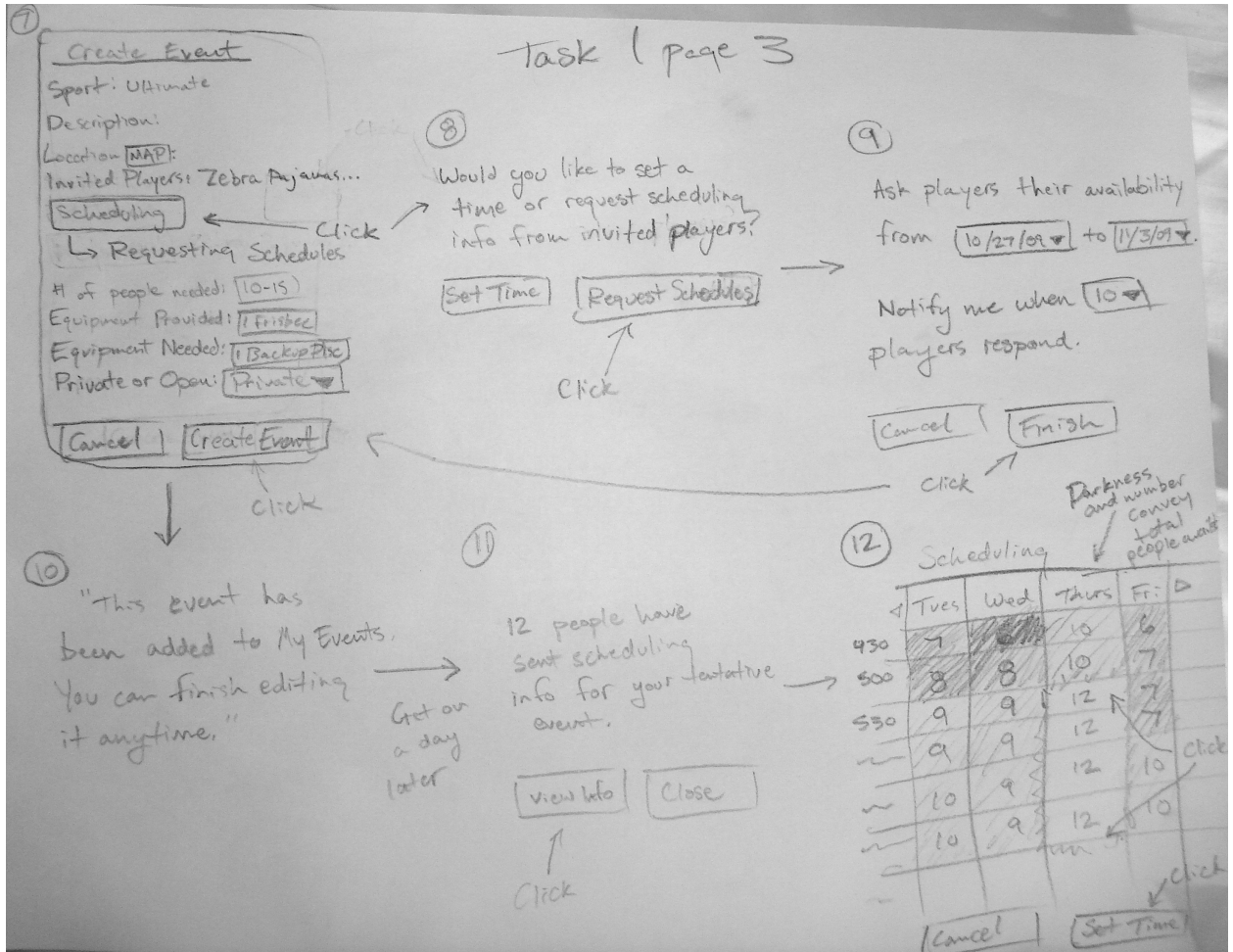


Storyboard 3



Task 1
Page 2

Task 1 page 3



⑬

Confirmation
Requests will
now be sent out.

Close

Task 1
Page 4

1

Main Menu
 Profile/Preferences
 People
 My Schedule
 Find an Event
 Create an Event
 Messages

2

Map View List View
 Filter: Soccer
 Search: Advanced
 Date: Tuesday, Oct 27, 2009
 6:30 PM
 Event Info: Soccer
 IMA fields, 5:50 PM-7:30 PM
 7 players confirmed, 11 spots open
 Join Game More Info Weather

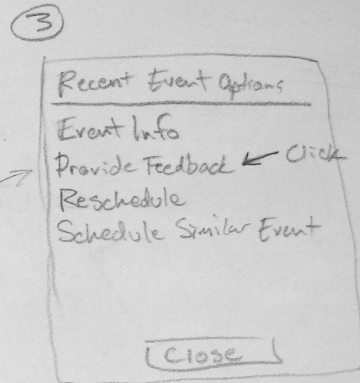
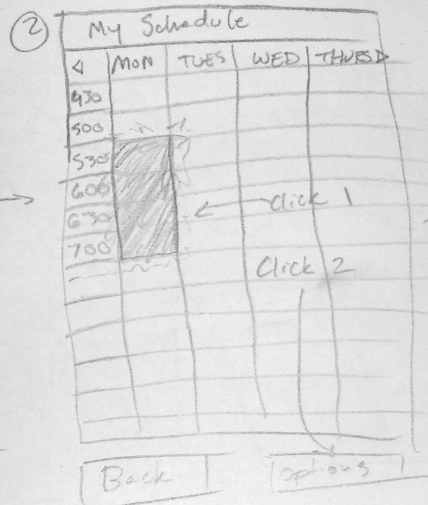
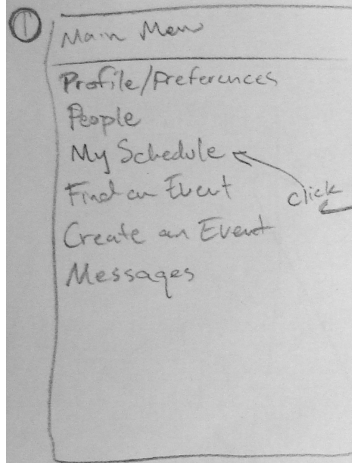
Darkness of slider shows density of events
 click brings up info

3

Weather Forecast
 Sunny, 63°
 0% Chance of Precip.
 At: 98105, Seattle, WA
 On: 10/27/09 6:30 PM
 Source: National Weather Service
 Back Join Game

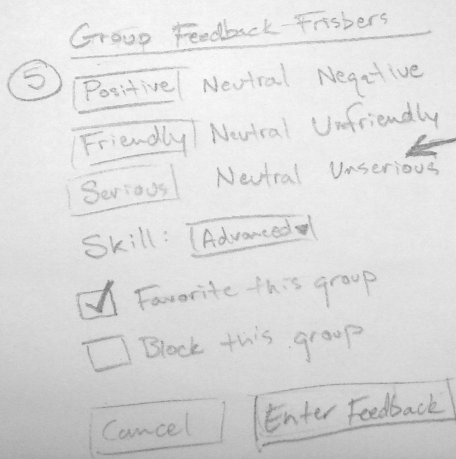
Click
 "This game has been added to your schedule. Would you like to set a reminder?"

Task 2



After the game...

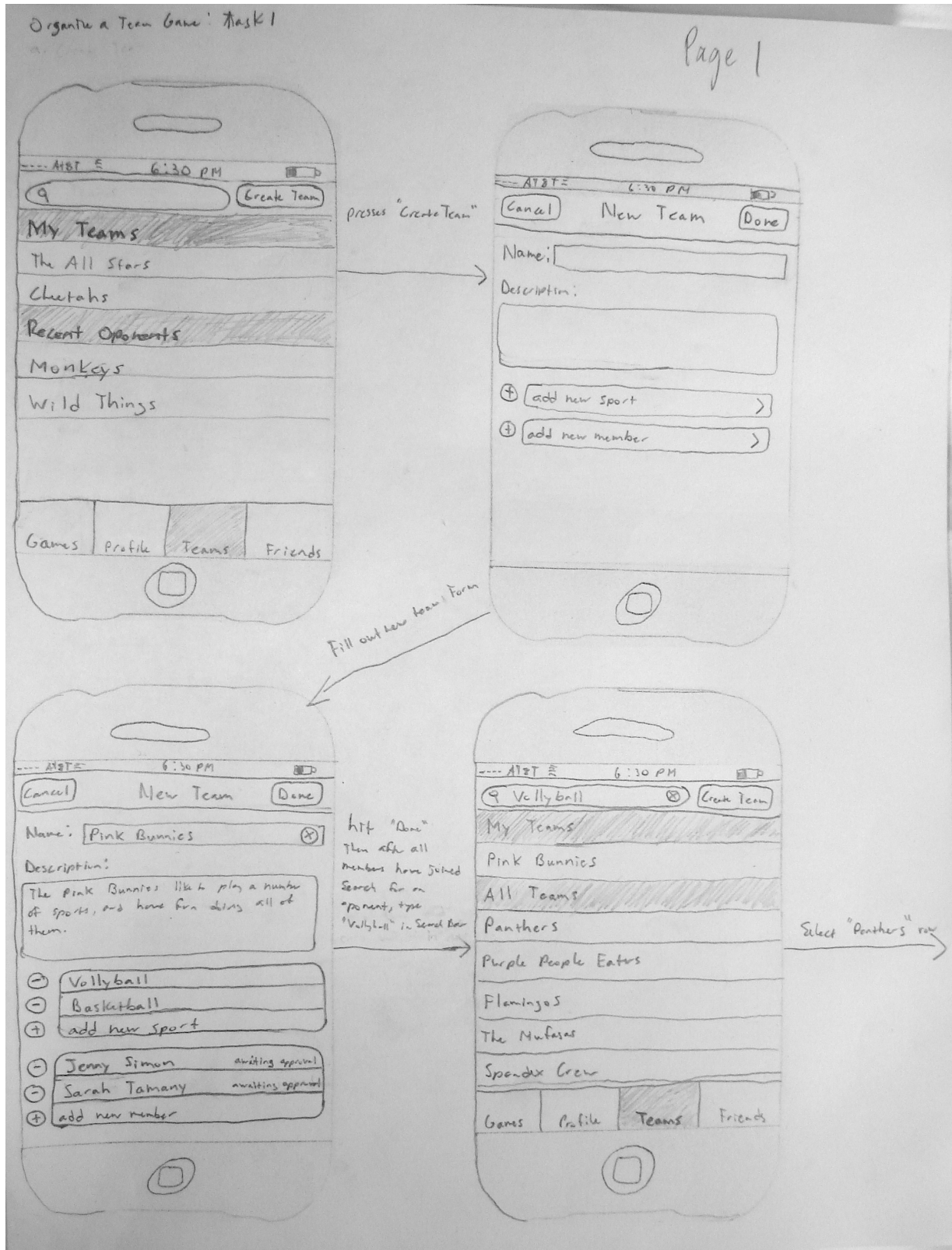
Participant Feedback ④

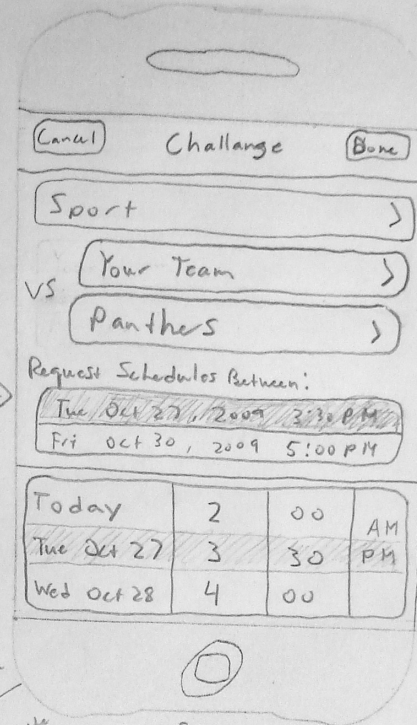
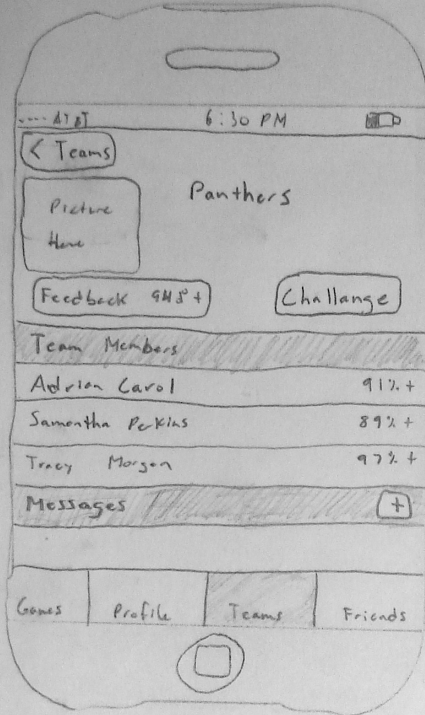


- Groups:
 - Zebra Pajamas
 - Frisbers ← click
- Individuals:
 - John
 - Sam
 - Bob

Task 3

Final Designs



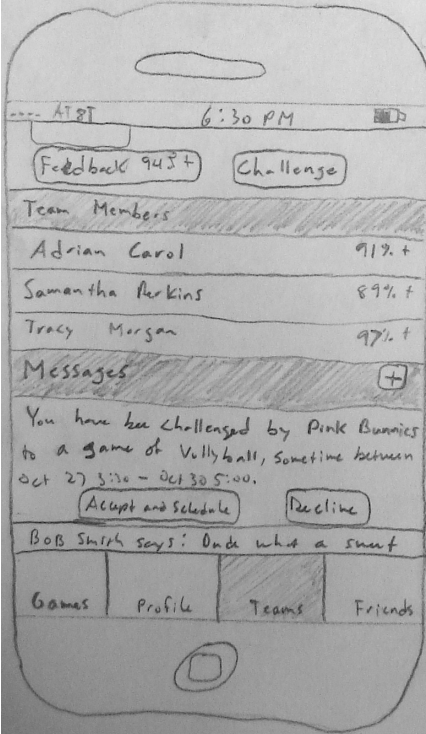


Note: Location, Privacy, and Permissions should also be lower on this screen.

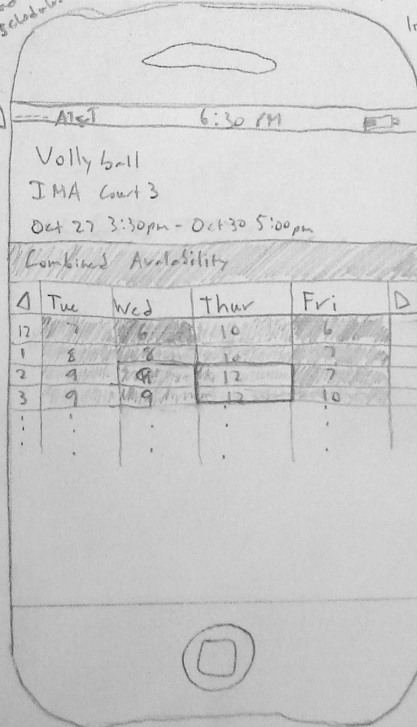
Press "Challenge"

Filled out the challenge form as the "Bone"

After your team and the Panthers had time to fill out schedules of when they were free you could review this info on the events page through your profile or the upcoming events list that can appear when you first open the app



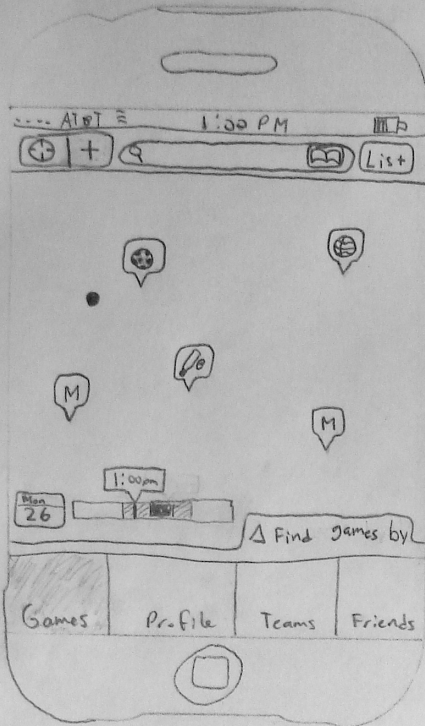
This is what the team leader of Panthers would see



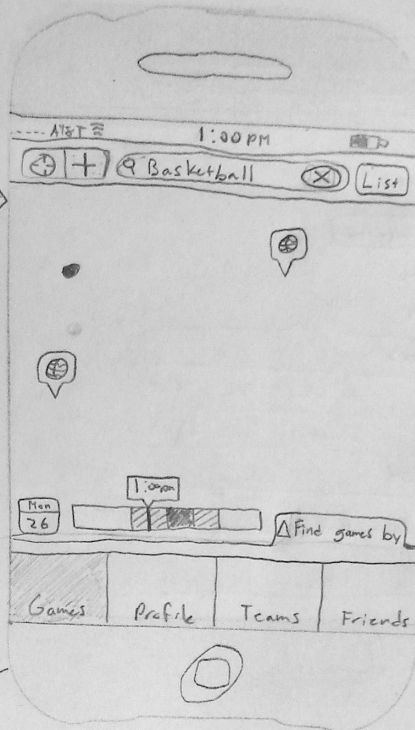
Select your preferred time based on availability of everyone.

after the two team leaders decide on a time all players are alerted and asked to confirm or deny what they can do

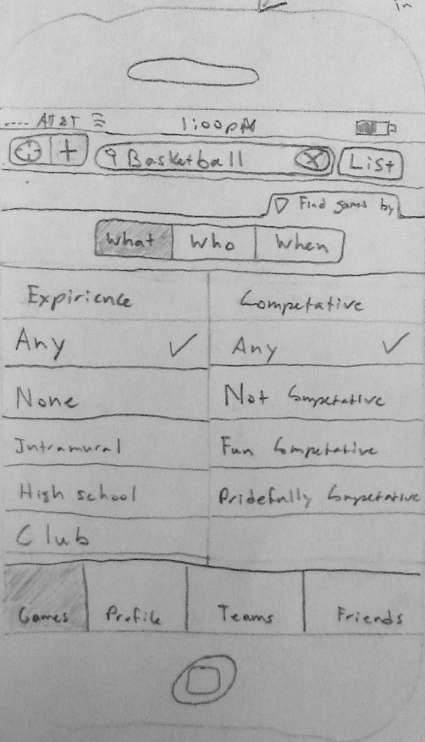
Finding A Game: Task 2.



User types "Basketball" in Search Bar



User presses "Find games by" in lower right



User selects "High School" and "Fun Competative" then presses "Find games by"



User presses >

--- Alat 11:00 PM

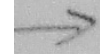
< Map Thinking About Playing Confirmed Playing

Basketball

JMA Fields Weather

1:00 - 2:00 PM

Spots Open: 11



Confirmed Players

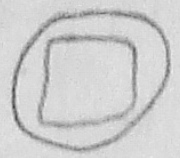
Jim Walsh High School Fun 98%+

Dave Reinhold Intramural Fun 89%+

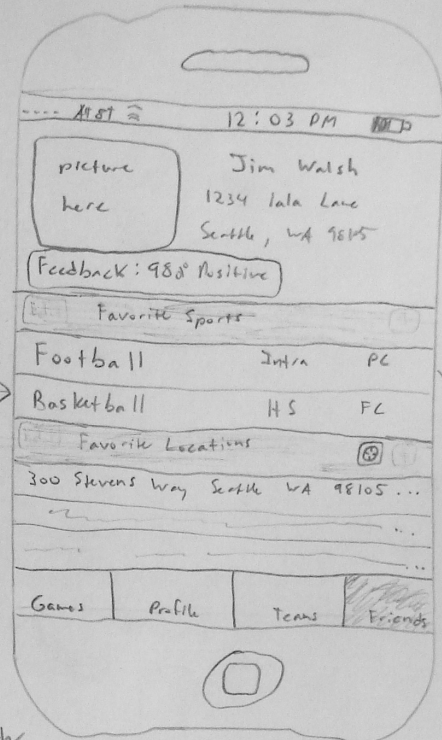
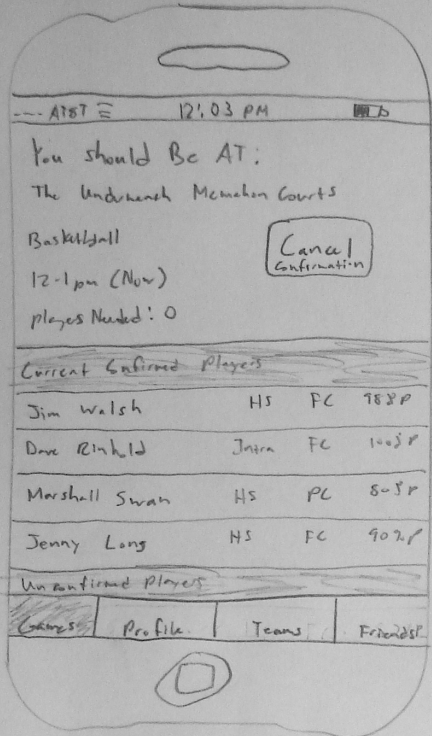
Unconfirmed Players

Sam D In Ellise Fun 90%+

Games Profile Teams Friends



Giving Feedback: Task 3

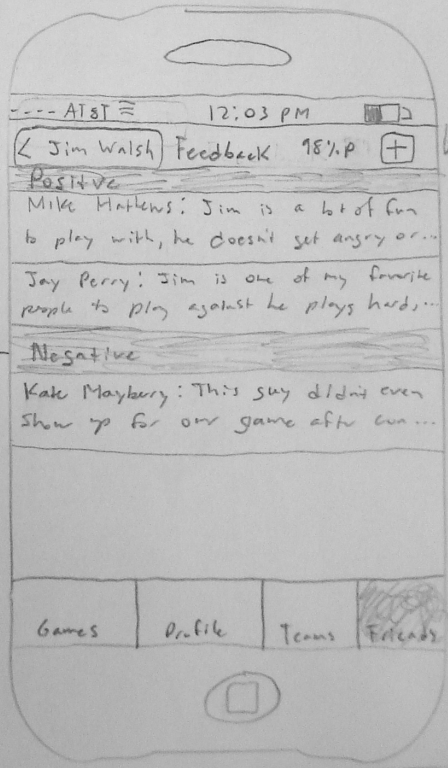


Press "Jim Walsh" row

Press "Feedback: 98% Positive" button

The user has now finished giving another user feedback.

Write some comments and hit Done



Note there should clearly be more Positive feedback if he has 98% positive. Yes I can do math.