



Connect and Meet People (CAMP)

Phase II: Design
CS 3724: Introduction to Human Computer Interaction
Fall 2021

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October 26, 2021

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Record of Changes

Version	Date	Comment	Name
0.0	10/11	Document created	Jordan
0.1	10/19	Added a persona	Karthik
0.2	10/21	Added Appendix A	All
0.3	10/21	Added Appendix B	Jordan
0.31	10/22	Updated Appendix B images	Jordan
0.4	10/22	Finished personas	All
0.5	10/25	Added System Concept Statement and Intro	Harrison
0.6	10/25	Added Appendix B images + completed Ideation & Critique	Jordan
0.7	10/25	Completed some sections within "Methods"	Kashan
0.8	10/26	Added additional idea features and descriptions to Appendix A	Campbell
0.9	10/26	Added to methods, started wireframe section, added to ideas list	Karthik
1.0	10/26	Finishing up wireframe section	Karthik
1.1	10/27	Added interaction Storyboards	Harrison
1.2	10/28	Added Ecological Perspective Storyboards	Campbell
1.3	10/28	Added Emotion Perspective Storyboards	Jordan

System Concept Statement

Connect and Meet People (CAMP) aims to get people outside and interacting. CAMP should engage members by awarding redeemable account points to active members. It must attract our target audience by using targeted advertisements to those that struggle with mental health or have difficulty going outside. CAMP must be platform agnostic, as to not limit or restrict membership. The levels of commitment to CAMP must be variable to encourage prospective members to test it out. Finally, CAMP must have a well organized home page. It will include links to all resources and reminders for all upcoming events.

Introduction

Phase I Reflection:

Overall, Phase I went very well and provided us a strong foundation to begin Phase II. After gathering contextual inquiry data, reducing the data into a WAAD, and identifying barriers to create design informing models; we were able to produce clear and concise system requirements to implement in our design.

Design Philosophy:

Our design philosophy for CAMP is to connect everyone with nature and one another. We believe in this philosophy because we seek to help as many people struggling with isolation as possible. To help us achieve this goal, we devised CAMP's system concept statement which is described on the page above.

General Design Approach:

To begin Phase II, our team decided that we would focus on ideation and critique, since it is the most time consuming part of the design phase. Before our first meeting of this phase, we each came up with roughly ten ideas before the meeting and put them on sticky notes. To begin the first meeting, we shared our ideas. After sharing our ideas, we categorized our ideas. We then criticized each category in general then the specific ideas. This gave us an idea of the direction we wanted to take the rest of our ideas and features.

For the second meeting of this phase, we again held another ideation and critique session. During this session, we were able to come up with many unique ideas. Additionally, some of the ideas from the previous meeting were morphed to better align with our system design requirements. Critiquing these new ideas was more difficult this round because we did not yet have persona perspectives to think about the ideas from. Therefore we decided that each member would create two personas before the next meeting.

At the beginning of the third meeting, each team member presented their personas to the team. After all personas had been presented, we discussed what we liked and did not like about each persona. Next, we collectively made tweaks to the personas and selected our target persona. Finally, we held an ideation and critique session during the second half of this meeting. During this session, we again combined some ideas we liked and created some features for ideas. This was the final critique session so we thought about our ideas from a person perspective to determine which idea we would pursue.

For our final Phase II meeting, we began by collaborating on ideas for the designer and user mental model section of the report. Next, we individually thought of a storyboard for the perspective we were given. After talking about what we planned to put in our storyboards, we finalized the interaction that the wireframe will follow.

Advance Organizer:

The following report will contain six main sections. The first section is the Methods section, and it will describe the physical and mental processes that went into the creation of this Phase I Report. Next, the Personas section develops a detailed target and four secondary personas. In the third section, Ideation and Critique, we used Phase 1 barriers and requirements to brainstorm 100 design ideas. Fourth, we describe the designer and user mental models we created. Fifth, we show how we developed storyboards for ecological, interaction, and emotional design perspectives. In the last section of this report, we create a wireframe for the idea that we decided to pursue in the Ideation and Critique phase.

Methods

Persona Creation:

After our in-class activity on personas, we all decided as a group that we should each come up with at least two personas in time for our next group meeting. At this meeting, we each presented our personas on whiteboards, describing their likes, dislikes, hobbies, and user classes. We then began discussing each persona, narrowing down which personas would be considered secondary personas and which would be our primary persona. In the end, we decided that our original primary persona (From the in-class activity) was still the one that best captured our target user class. This is because the persona, Bob, is introverted and socially awkward, but he wants to change that and find ways to go out more. Out of the remaining personas, four were picked to be secondaries.

The first secondary persona, Heather Williams, is the president of the Outdoor Club at VT. We thought this was an appropriate secondary persona based on our contextual inquiry and analysis from Phase 1. During our interviews and observations, some of the club leaders mentioned how they did not have the proper tools to retain members and gain new ones. This was specifically a problem during the pandemic when people were hesitant to go out. So, we thought our product can cater to club leaders that are trying to find new ways to connect with their current and future members.

Ideation/Critique:

Our group was able to meet for four separate ideation and critique sessions. Each session began with an ideation phase, where each member was given the target of creating 10 unique ideas and sketching them on a sticky note. After the ideation phase, we would all present our ideas one by one. During this time, no critiquing was allowed. Once all of the group members have presented their ideas, we began the critique phase. At this point, we identified which ideas were similar and could be combined in the future, what design requirements different ideas satisfied, and general characteristics of the ideas. For example, we found that there was one category of ideas that used negative reinforcement to impact the users decision to go outside. We decided from our critique session that such ideas were counterproductive, and always went against design requirements. At the end of each session we identified which ideas would still be considered possible solutions and which would be removed. The next session would see us critiquing new ideas as well as old ones that were saved from the previous session. This process continued until we decided on one idea.

Mental Models:

Our user and designer mental models were created throughout the development of our final design idea, and finally flushed out after all of our ideation and critique sessions, storyboards, and wireframes were completed.

Storyboards:

Using our in-class activity on storyboards as a base, we collectively created three new storyboards, one for each design perspective. This was done with all members present, so everyone could be involved in the creation process equally. We worked on the storyboards one by one, starting with the ecological design perspective storyboard. The process for creating the storyboards was always the same. We started by brainstorming ideas for the storyboard, writing down what we want it to show, surrounding elements we want to be visible, interaction elements we need to depict, if working on the emotional design perspective we thought about how we would accurately convey emotions and which emotions to focus on, etc. After sufficient brainstorming, we began drawing the actual storyboard one frame at a time. We did this until we completed three different storyboards.

Wireframe:

We used Activity 9B as a foundation for this section. During the in-class activity, we had many wireframes already completed, so we just decided to add on to it. We used the web application Balsamiq because it was recommended by the professor and Karthik had experience using it. We modeled our wireframes after the storyboard pertaining to the interaction design perspective. This is because that particular storyboard depicted the main purpose of the app, which is to find an event, go to it, and get rewarded. We added an additional wireframe from Activity 9B which shows the screen for Guild Events. We thought it was important to add this screen because having specific events for your guild increases the community aspect of our game. We came up with this feature during our ideation and critique session as we narrowed down our ideas to the app. All of the group members contributed to this section and Karthik added the Guild Events screen and provided descriptions for each screen.

Personas

Persona 1 (Target):

Name: Bob Williams

Age: 18

Work role: Student

User class: Introvert - Inactive

Bio: Bob is a freshman at Virginia Tech. He is originally from Utah and is anxious to go to college. He wants to try to meet new people; however, he spends the majority of his day indoors, playing video games. He feels isolated from his peers due to a lack of interaction with them. He's always been shy and introverted and this has led to a lack of social skills. He's also physically overweight and doesn't exercise regularly. Recently, he's noticed how this affects his health more and more, as simple tasks become difficult. He is looking for a tool to make the socialization process easy and fun.

Tagline: "I want to start going outside and meet new people."



Personality

Open to new experience	-----x----- -----	Closed to new experience
Organized and thoughtful	----- -----x-----	Impulsive and unstructured
Social and outgoing	----- -----x-----	Shy and quiet
Honest and kind to others	----- -----x-----	Disagreeable and uncaring
Worried and anxious	-----x----- -----	Relaxed and laid back

Goals

- Improve social skills
- Be more active
- Make more friends

Frustrations

- He wants to be outgoing, but his lack of social skills is preventing him from doing so
- He feels like most outdoor clubs cater to people that already like going outdoors
- He's self-conscious about his physical abilities

Persona 2:

Name: Heather Williams

Age: 21

Work role: Student

User class: Leader

Bio: Heather Williams is the president of the Outdoor Club at Virginia Tech. She is a junior studying environmental science and biology. Her passion for the outdoors started at a young age when her father would take her hiking, fishing, and hunting. She wants to eventually work at the US Fish and Wildlife Service to help protect animals and the environment. Heather believes that it is her calling to serve the planet and introduce others to the beauty of the outdoors. Her responsibilities as president of the club include conducting meetings, managing other officers, retaining members, and helping recruit new members. Unfortunately, it has been tough for her to recruit new members. This year, only 5% of the members of the club are new. She is looking for a tool to help her reach out to people who may be introverted and do not recognize the positive effects of being outdoors. Hopefully, she will reach a 20% threshold of new members after using this product.

Tagline: "I want to recruit as many good people as possible to my club!"

Personality

Open to new experience	--x----- -----	Closed to new experience
Organized and thoughtful	----x----- -----	Impulsive and unstructured
Social and outgoing	---x----- -----	Shy and quiet
Honest and kind to others	--x----- -----	Disagreeable and uncaring
Worried and anxious	-----x--- -----	Relaxed and laid back

Goals

- Recruit new members
- Help people

Frustrations

- Frustrated with lack of new recruits
- Worried she's at fault for lack of interest in the club

Persona 3:

Name: Zhong Li

Age: 25

Work role: Graduate

User class: Inactive - Extrovert

Bio: Zhong recently graduated from college and has moved into a new city to begin work. He retained a few friends from his time in school, and he's content with that. However, he wants to meet more people in his area that are active. He believes that people who have the initiative to get outside and do things make good connections. He's not all that interested in the outdoor activities himself, but is more there for the people. Zhong isn't necessarily looking for friends, but isn't opposed to meeting them. He's inexperienced with outdoor activities but is in decent shape from his good diet and walking to work.

Tagline: "I want to network with active people"

Personality

Open to new experience	-----x--- -----	Closed to new experience
Organized and thoughtful	-----x--- -----	Impulsive and unstructured
Social and outgoing	-----x--- -----	Shy and quiet
Honest and kind to others	----- ---x-----	Disagreeable and uncaring
Worried and anxious	----- ---x-----	Relaxed and laid back

Goals

- Build a network
- Meet unique people

Frustrations

- Worried people will find out he's not outdoorsy
- Thinks this may be a waste of time

Persona 4:

Name: Danny Day

Age: 20

Work role: Student

User class: Inactive - Extrovert

Bio: Danny Day is a college student in his 20s. He attends one of the largest universities in his state and thrives from the busy and social environment. Danny has always been an extrovert, and this characteristic makes him well liked among his peers. He joined a fraternity in his freshman year and now, in his junior year, he's the fraternity historian. This role works well with his outgoing nature and gives him an excuse to attend every event the fraternity holds. Despite his social nature, Danny is an excellent student. Although he may at times put his social life first, when it's time to work he can focus for hours on end. When he's not socializing at different campus and fraternity events, Danny likes to watch tv, play pool or darts with his friends, and go out to eat/drink. Although he appears to be pretty fit, Danny doesn't regularly work out or play any sports. Most of his social events are also indoors and don't involve any strenuous exercise. However, if any of the clubs he's a member of hold an outdoor event, Danny is always there.

Tagline: "I want to attend more outdoor activities to get active"

Personality

Open to new experience	----- -----x---	Closed to new experience
Organized and thoughtful	-----x----- -----	Impulsive and unstructured
Social and outgoing	-x----- -----	Shy and quiet
Honest and kind to others	-x----- -----	Disagreeable and uncaring
Worried and anxious	-----x----- -----	Relaxed and laid back

Goals

- Get Active
- Socialize
- Make connections

Frustrations

- Wants more outdoor/work out events
- Needs social events to motivate his work outs/outdoor activity

Persona 5:

Name: Rachel Monroe

Age: 16

Work role: Student

User class: Active - Extrovert

Bio: Rachel Monroe is a teenaged high school student living in a small town in rural Virginia. Most people in her community know each other and greet Rachel warmly. She's active in her school's student government and even plays on the school's soccer team. Outside of soccer, she enjoys going on hiking trails with her friends and biking. Occasionally, Rachel enjoys playing video games with her family as a way to unwind and bond. She also always tracks her physical activity when she's out of the house. She uses a smart watch to track her steps and heart rate. This is especially useful for her when she's going on a new trail.

During her time as student body VP, Rachel initiated a campaign to get more of her peers outside, hoping it would improve their mood, physical health, and mental health. She found that many of her peers were not motivated to get outside and would rather socialize by seeing a movie, going to the mall, or eating out. Rachel wanted a way to motivate her peers to be more active while maintaining that social interaction.

Tagline: "I want to help my peers go outside more often and build community"

Personality

Open to new experience	-----x--- -----	Closed to new experience
Organized and thoughtful	--x----- -----	Impulsive and unstructured
Social and outgoing	-----x--- -----	Shy and quiet
Honest and kind to others	x----- -----	Disagreeable and uncaring
Worried and anxious	----- ---x-----	Relaxed and laid back

Goals

- Help peers get outside
- Organize growing community

Frustrations

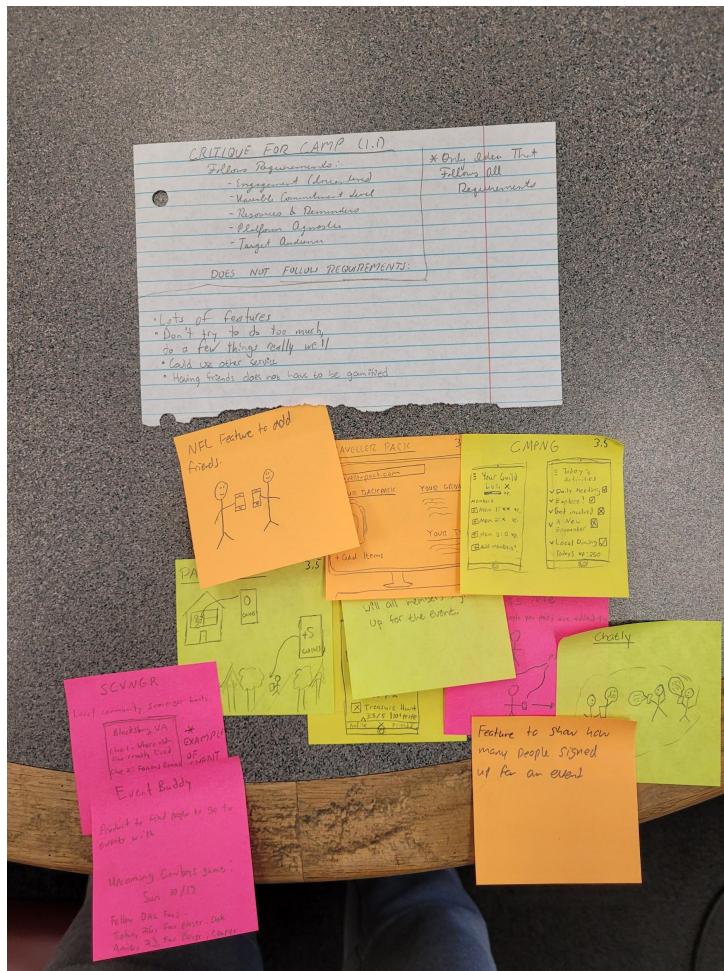
- Wants an easy way to organize outdoor events

Ideation and Critique

Our solution ideation sessions started with each individual group member presenting ~10 original ideas without feedback or comments. Those ideas were then grouped together based on how well they would mesh together as one idea. If ideas didn't work well with others and weren't able to stand alone, they were eliminated. The grouped ideas that moved on were then condensed and fleshed out with additional features.

A driving factor in keeping and eliminating ideas was how well they fit into the Phase 1 design requirements. We then referenced our Phase I submission to see if these ideas addressed problems we found in our CI/CA work. Ideas that addressed all design requirements and did not recreate any of the barriers identified in the Phase I barrier table were favored.

One step of our ideation and critique was grouping ideas into groups based on how similar their overall ideas were, then picking out the best ones based on how well they followed our design requirements of engagement, targeted advertising, platform agnosticity, variable commitment levels, and resources + reminders. Once again, these ideas were referenced against our design requirements to see if we had addressed everything. Additionally, we examined how well our ideas at this stage addressed the needs of our personas. After all of this consideration, we were able to narrow it down to one idea (seen below) and refine it so that we saw it fit best to everything. Please see Appendix A for our list of ideas and Appendix B for all images.



Conceptual Design

Designer's Mental Model:

Our own mental model was heavily influenced by our early ideation and critique sessions, where we were able to narrow down a selection of ideas that were related to one another, and individually represented distinct features of our final CAMP RPG app idea. These features and ideas were all informed by our design requirements and CI/CA work from phase 1. We learned from phase 1 that many of our target users were simply unaware when outdoor events were taking place because the proper communication channels were not established within their particular club/community. Therefore, we knew our design would have to provide an easy way for users to find all available events (This was realized through an events list page in the app). These ideas were all on sticky notes and featured drawings or explanations of the features, which made it easy to see what features we all agreed to implement and which we would be avoiding.

After talking about our features and ideas a little more, we created a rough wireframe for the home screen of our proposed app. This initial home screen combined all the features from the previous sticky notes into one concise idea which we would later critique and alter through subsequent wireframes.

Our basic design model supports all of the features from our ideation and critique sessions and were all individually critiqued on how well they followed the design requirements from phase 1. These features included: An events list for the user to easily find all active events (Follows design requirement: Resources and Reminders), a way for users to add their friends into the app or their guild (Follows design requirement for engagement), a way for users to find the event once they've decided to go it (Follows design requirements: engagement and variable commitment), and a way for users to customize their character (Follows design requirement: Target audience). The user's character would also have their own "level" and "stats" used to track their engagement and outdoor activity. The user's stats would increase whenever the user's character (avatar) levels up. These stats would be the user's HP and MP (health points and mana points), two common stats used in role-playing games. Following the design pattern of RPGs, each event would be considered a "quest" that the user can complete with their friends or their guild, who would act in the same way as a player's "party" does in a normal RPG. The users who take part in the quest are rewarded with an increase in their XP (experience points), which moves them closer to leveling up. The game considers "completing a quest" to mean attending an event, which is confirmed by the GPS screen which guides the user to the event.

From the home screen the user will be able to access their user information, the guild page, the customization page, and add friends to their friends list. They can also swipe to the right to access the current events list, which also features an option to view the "Guild Events" page, which shows events that are exclusive for that user's guild. If the user swipes to the left they will

see the GPS page, which shows their current location and events around them that are visible (Active events and guild events).

User's Mental Model:

Considering that the app is built to replicate design patterns used in modern RPGs and is an overall gamified community engagement app, the user's mental model would pertain to their view of mobile games and RPGs. In the textbook, they use a thermostat as a common example where a user's mental model is based on "...knowledge in the head, mostly from previous experience and shared conventions" (Page 304). Similarly, our user's mental model comes from their previous experiences with video games/mobile games and community engagement.

Below are the Conceptual Design Techniques we used to map our designer's mental model to the user's mental model:

Design Patterns:

- The use of common player stats and menus make the experience familiar to the user, as they all follow classic RPG menus and layout. For example, the user will have an HP and MP bar, a certain amount of XP points they need to level up, and a way to customize their character.
- The user scrolls through the three main screens (Home, events, and GPS) by identifying three dots placed towards the bottom. Each dot features an icon above it to represent what that screen is used for. Of the three, one of them will be shaded, indicating the current screen the user is on. This design pattern was popularized by mobile phone operating systems such as Android and is still used by them to indicate a selection of screens that the user can swipe to access.
- Different screens may feature a list which is accompanied by a scroll bar, a common design pattern used by websites.
- The home screen features a circular "+" button. This design pattern has been used by well known social media apps such as Instagram and Snapchat to indicate that the user can press this button to create a new post/snap/etc. In our case, it's used to add either events or friends.

Cognitive Affordances:

- The arrow on the screen when the user is viewing the "map" affords that this is where the user currently is.
- The home screen features a circular "+" button. Affords that it can be pressed to add friends or events (Depending on the screen).
-

Metaphors:

- The GPS screen features a standard map, made to look like a paper map and colored to follow the RPG theme of the game.

Storyboards

Interaction Perspective

Figure 7.1 is our first draft of the interactive design perspective. This draft captured a few main elements of CAMPs interaction design that we agreed upon. Receiving a notification, then opening the app to get directions to an event were the main interactions that Figure 7.1 covers. as being able to look at an event list and get directions to an event.

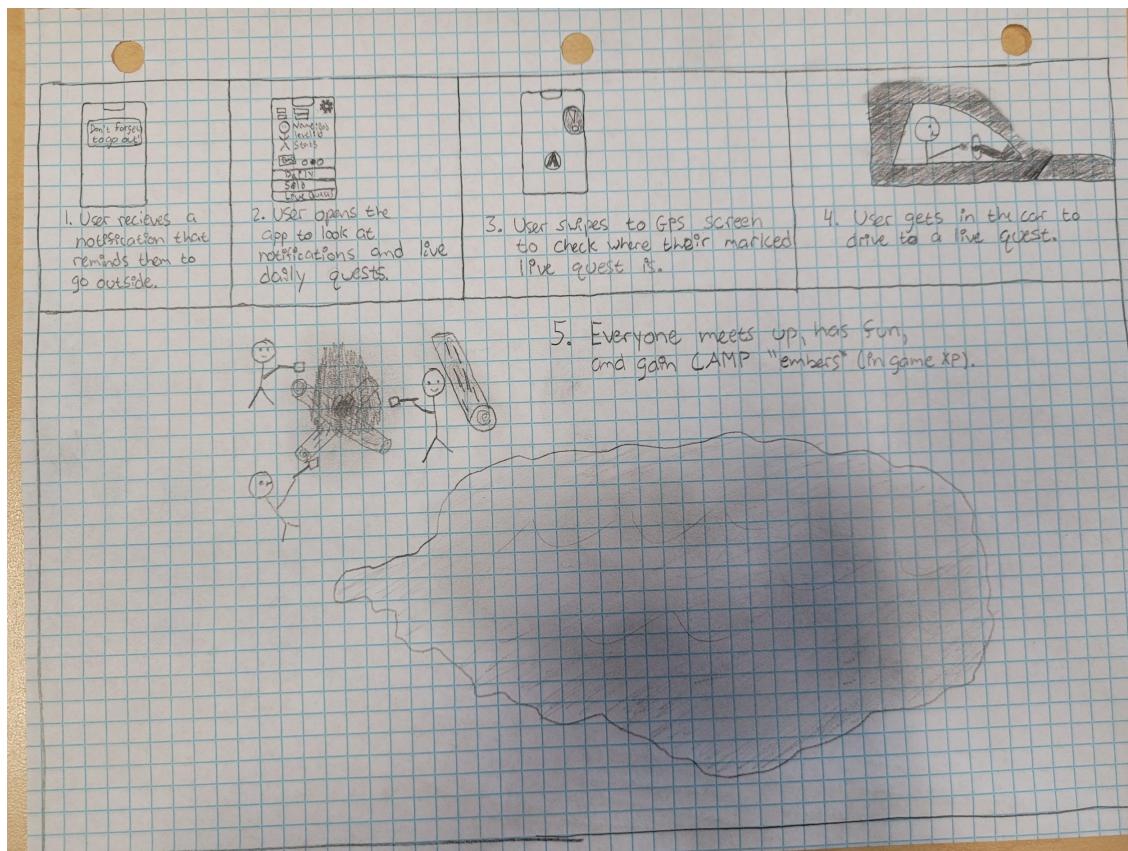


Figure 7.1

In the next iteration for the interaction design storyboard, we refined the visuals for the interactions we included in the first iteration. The event list interaction was modified to include separate spaces for “All Events” and “Guild Events”. We did this to emphasize the importance of guilds and allow for a type of event sorting. In Figure 7.2, we also added a final interaction where two CAMP users are able to add each other by tapping their phones together (via NFC). We came to this interaction design decision with the goal of emphasizing the community aspect

of CAMP.

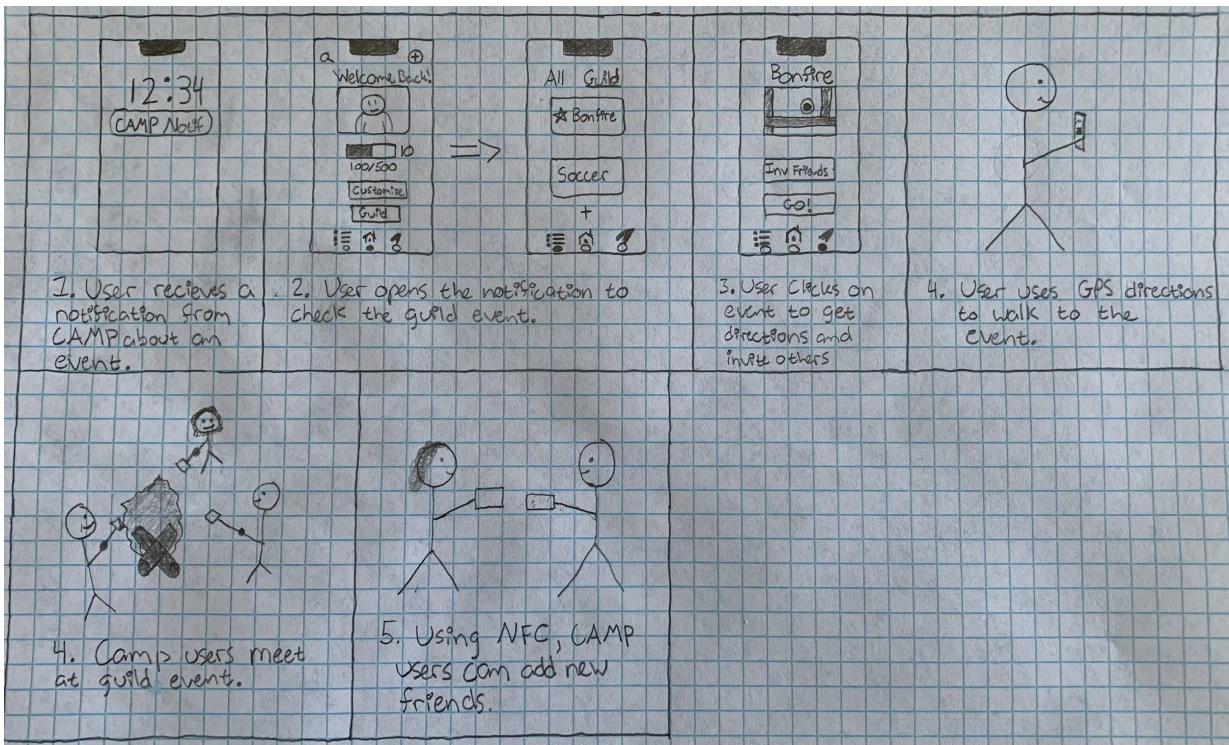


Figure 7.2

In the final iteration of the interaction design storyboard, we put the elements from Figure 7.2 into a storyboarding software and added descriptions to each panel. Additionally, Figure 7.3 adds depth to the main user by using a persona the team created.



Figure 7.3

Ecological Perspective

Figure 7.4 is our first draft of the ecological perspective storyboard. The draft captures a lot of the main elements of CAMPS ecological design. The user receives an event notification from someone in his guild. He then accepts the invitation and goes to attend the event. The storyboard shows the user walking from his home to the event location using the GPS feature of the app and eventually arriving with new friends awaiting.



Figure 7.4

Figure 7.5 is the final version of the ecological perspective storyboard. In order to improve on our draft we first refined the visual representation by making the scenario more realistic. We also added more to the storyboard by using one of our personas, Bob, interacting with the app and attending an event.

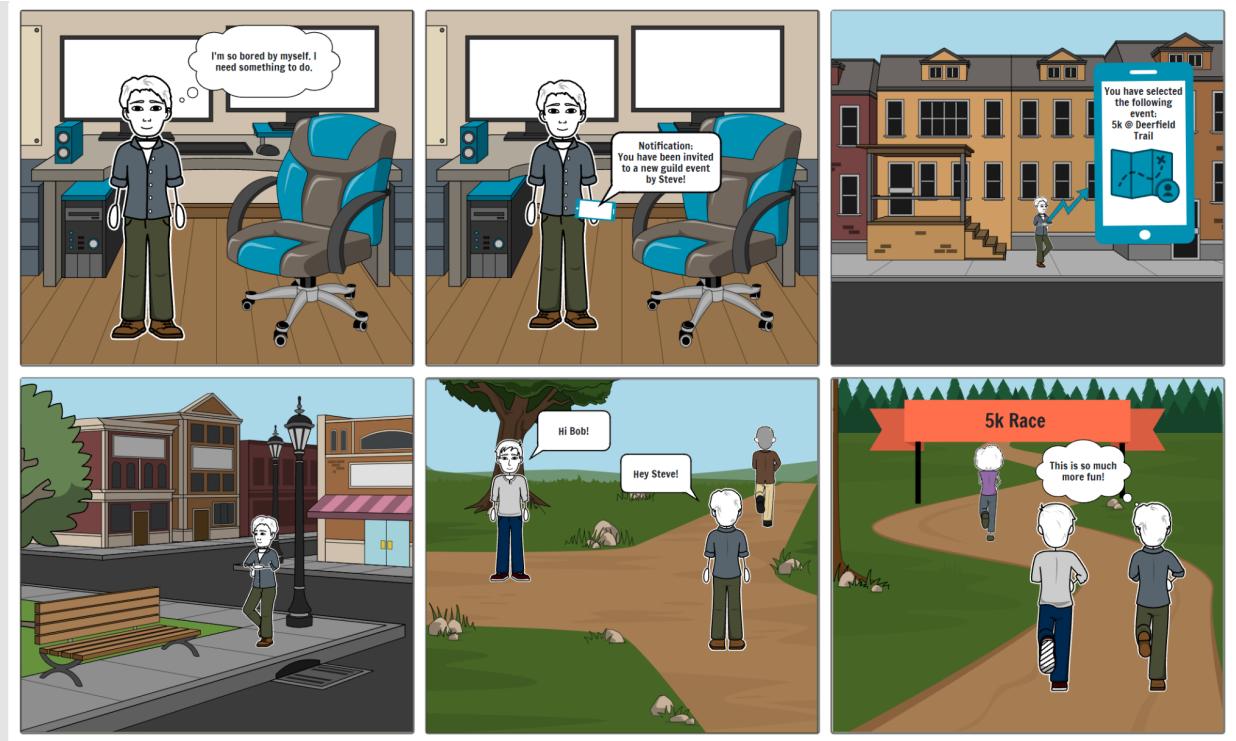


Figure 7.5

Emotional Perspective

Figure 7.6 is the first draft of our emotional perspective storyboard. The main elements this storyboard captures are the user feeling sad because they are isolated from friends and nature, then the user goes to a CAMP event and feels happy.

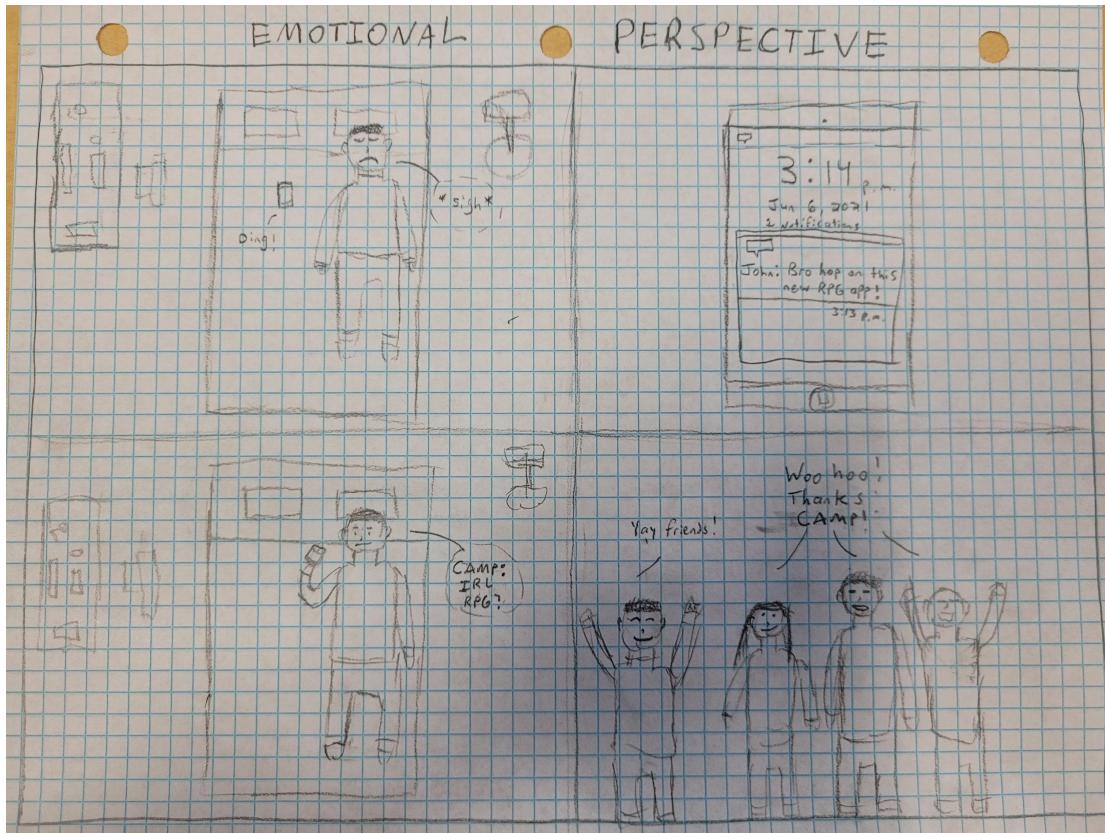


Figure 7.6

Figure 7.7 expands on Figure 7.6, showing more of the emotions that the user felt during the entire process of using the CAMP app (sign up, going to event, completing an event).

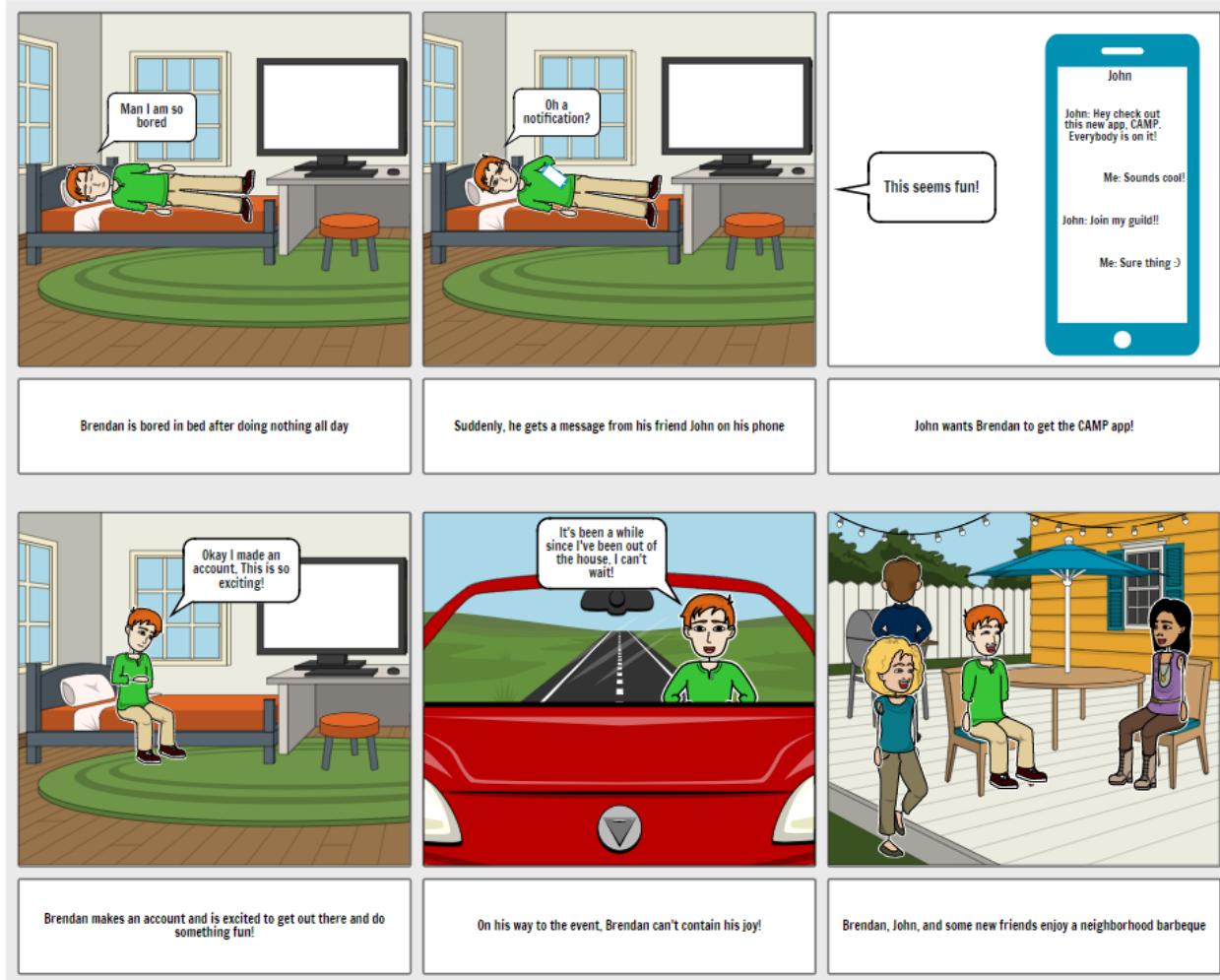


Figure 7.7

Wireframes

We started our wireframing process in Activity 7B. After we narrowed down our ideas to the RPG game, we sketched our initial ideas for a home screen and other features.

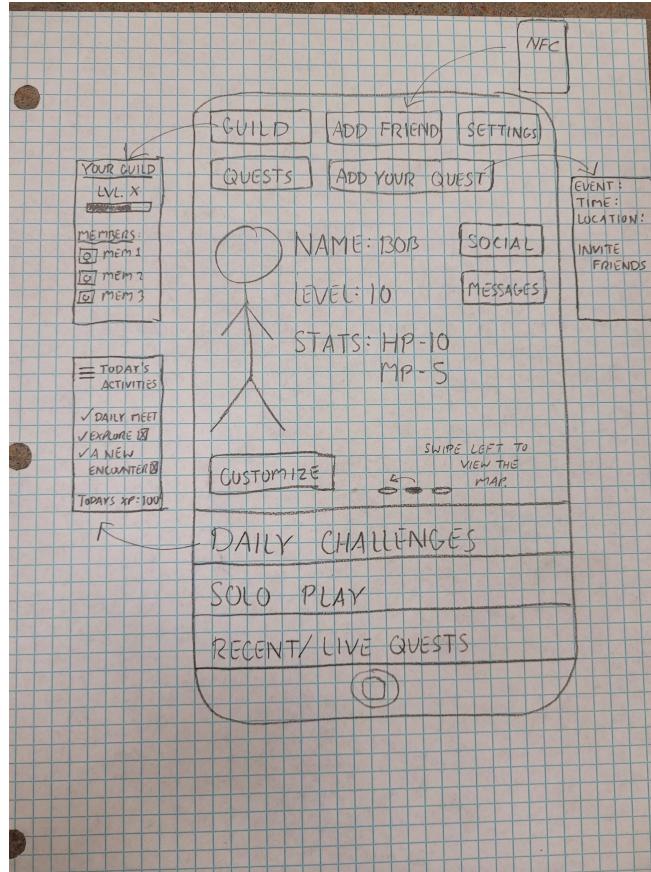


Figure 8.1: Initial home page sketch

This sketch served as a basis for our official wireframes. After storyboarding, we used the online software Balsamiq to create the wireframes. The sequence of screens correspond to the storyboard pertaining to the interaction design perspective. The user gets notified of an event, opens the app, searches through the events list, chooses an event to go to, attends the event, and gets rewarded. Below are links to each screen depicting this process.

Screen 1: <https://share.balsamiq.com/c/n24xG6aAT6PxSBVeCFnEJs.png>

This screen shows a notification the user would receive while on their phone's home screen. It notifies the user of a new event added by their guild leader and gives them the option to open the app or close the notification.

Screen 2: <https://share.balsamiq.com/c/wv8q8CXsw8ZZkZ5NoZj8fD.png>

This is the homepage for CAMP. It has your profile picture, a search button, a “+” button to add a new user, a button to customize your user profile, a button to access your guild, and a navigation menu at the bottom.

Screen 3: <https://share.balsamiq.com/c/u9EMPW6a6AdLgSAvhVWJp7.png>

This is the events screen, which is to the left of the homepage, and can be accessed with a swipe right. It lists all of the nearby events and allows you to click on each one to take you to the next page. The red text below the name of the event is the host of the event. Each event block also has a picture of the place in which the event is being held. Events with the VT logo indicate that it is being hosted by a VT organization. Finally, there is a “+” button to add an event and a “Show Completed Events” button at the bottom.

Screen 4: <https://share.balsamiq.com/c/jFojQkyhMPMXGgYTg143bF.png>

This screen is very similar to the previous one, but it only displays events that are exclusive to your guild. The same features from the “All Events” screen apply to this one as well.

Screen 5: <https://share.balsamiq.com/c/p5dW3ibaEibpoHNqc5Kr4k.png>

This screen shows what is displayed after you tap on a certain event. It gives you details of the event, a map showing its location, an invite section, and a “Go To Event” button, which takes you to the next screen. The invite section gives you the option to invite people from your friends list or people in your guild.

Screen 6: <https://share.balsamiq.com/c/2Myr1vqvLbim9NKMFAcdaC.png>

This screen shows what is displayed after the user presses the “Go To Event” button from the previous screen. It can be used to get to the event’s location and during the event itself. For example, if you are going on a hike, it will display the location of the start and the finish of the trail.

Screen 7: <https://share.balsamiq.com/c/39W8DxM6aYTEgoqvaxYLh.png>

The final screen shows the user’s completed events, the amount of XP they earned, and a progress bar for the level they are on. As you complete more events this page will be updated. It is helpful for the user to keep track of their progress and accomplishments.

From Activity 7B, we added a new screen to display events that are exclusive to your guild. This is the main difference between our first iterations of the wireframe and our final one. We felt like this was an important addition in order to expand the community aspect of the app. With guilds, users can have their own subcommunity, and guild events further garner that community.

The most important contribution of our design is that it provides a community forum of events that actually notifies you of new events. Currently, many people attend most events from word of

mouth, as we concluded in our contextual analysis. They may hear about an event from a friend and go to it if they can and if they remember. With our game, users are notified of new events, eliminating the word of mouth aspect. This especially helps people that are introverted and may not have many friends that can let them know about events. We believe our design is a great improvement over current ones for our target persona.

References

Appendix A - Ideation Notes (100 ideas)

[Add additional appendices as needed to convey raw data and other materials. Things to consider including are Journal notes, pictures, screenshots, ideation notes and sketches, early drafts of storyboards and wireframes, rejected persona candidates not captured elsewhere, etc. Remember that the more raw info you provide, the easier it will be to issue partial credit if we are having a hard time finding requested info in the body of the document. Show us all of the work you have done. We want to understand your design process.]

[Each appendix should begin on its own page using a page break]

1. RandomMeet - GPS that automatically is set to an event in the area.
2. DeliverToSomewhereElse - Delivery/E-Commerce site except products can not be shipped to your house. They're shipped to a common location that's close to your house but is shared by other people who also want to go out and meet new people/make friends
3. Feature for #2: The shared location could have a live counter for how many people are currently there
4. Feature for #2: The shared location should be set up like a community clubhouse, with furniture, tv, and games to play.
5. Feature for #2: The items could be locked until the purchaser has had a confirmed interaction with at least one other person.
6. Feature for #2, Regarding #55: Confirmation could be through NFC, scanning a timed QR code, or "activating the lock" by simultaneously pressing buttons on opposite sides of the room.
7. Feature for #2: The website could have a log of all the interactions a user has had, saving the profile info of those people. Users could then chat with those they've already interacted with.
8. ParkCoin - A crypto coin similar to "sweat coin". Rewards the user for visiting parks and going outside
9. Feature for #8: If the user is at the park with a group, the rewards are multiplied based on the size of the group. People considered "in the group" would also have to be registered on the app.
10. Feature for #8: Different parks can push different rates for the reward, changing them dynamically to attract more users around peak timings, or encouraging more people to visit when the park is having some event.

11. Feature for #8: The app could give separate rewards for sharing pictures of the trip, or identifying different landmarks within the park. This could also be used by the park to create incentives to visit certain areas.
12. WalkWithYourNeighbor - Another reward based app where neighbors can request someone to walk with them. The person responding is rewarded with some form of digital currency. The neighborhood can also organize events around these requests in order to raise funds. (Could be used by charities as well)
13. Feature for #12: Incorporate some safeguards to ensure requests do not come from outside the neighborhood, or that the final destination is only x amount of feet outside the neighborhood.
14. Feature for #12: Make sure requests are fulfilled by members of the community within the same age range.
15. PhoneATeammate - At the gym and need a partner? Playing basketball but the teams are uneven? Drop a request in the app to signal nearby users that you need a teammate. People with the app can decide when they're visible (When they receive notifications from the app)
16. Feature for #15: Players should be able to customize their accounts(avatar) with stats and preferences so requesting members can know who to expect and what they're good at.
17. Feature for #15: Responding users should be rewarded with some in-game currency that is used for sending requests and customizing your avatar. The reward for responding should far outweigh the cost of requesting.
18. Feature for #15: There should be a log of requests/responses for each user so they can see what games they played and with who. Users should also have the option of recording the outcome of the games plus comments about the interaction. The log would only be seen by the user, not publicly shared.
19. Feature for #15: The app could push notifications after a fixed amount of time, nudging the user to set up a game with people they've played with before.
20. IWalk - An app paired with special shoes that accurately count the users steps and activity and send this info to the app. The main function of the shoes is that they communicate with other users through RFID tags. The users exchange information anonymously, allowing you to see how much the people around you have walked.
21. Feature for #20: The shoes could also pick up how the user walks, where they distribute their weight and recommend ways to correct poor habits or pain.
22. Feature for #20: Information shouldn't be sent immediately after users pass each other, if that were the case it wouldn't really be anonymous. Info is sent at a later time, and how much later is random.

23. Feature for #20: Motivate the user to walk more by generating a scoreboard as the day goes on. They would see all the people they've passed and how their walking habits compare.
24. Outside Alarm - An alarm clock that throws itself outside your window so you're forced to get up and turn it off. The Alarm clock is charged when plugged in so the alarm won't turn off simply because it's unplugged..
25. Feature for #24: While making its way to your window or door, the alarm will tell you about the weather and different activities you could be doing outside today.
26. Feature for #24: The alarm is connected to your wifi and will find events in your area the night before, to remind you of them in the morning
27. LonelyLight - A smart bulb that highlights the users isolation, making them more aware of their interactions (Or lack of interactions). The bulb starts the day at a medium brightness (The brightness and colors aren't adjustable) and adapts throughout the day based on user interaction and activities. The bulb comes with a sensor that goes over the bedroom door to keep track of how many times it's been opened and closed. Using the door sensor, the bulb attempts to guess how much you've been interacting with other people. If you haven't been interacting much, the lights go dim and may change between dark, ominous colors. If you have been interacting (Above your own average level) the light gets brighter and uses lighter, happier colors.
28. Feature for #27: The LonelyLight also has a small microphone for picking up sound. The mic doesn't record your speech, but is able to tell what noises come from the human voice
29. Feature for #27: The bulb can also be connected to the fitness app on your phone (Samsung Health, Google Health, etc.).
30. Feature for #27: Before getting dark, the bulb should suggest to the user that they get up and interact with people or leave the room for some time. It could do this by pushing notification to the user's phone.
31. Ticket Vending Machine - Super cheap or even free invitations to local events. Anyone in the community can stock the vending machine. Events could be anything (Barbeque, playing basketball, garage sale, block party, concert, etc).
32. Feature for #31: Those that are stocking paid event tickets will only be able to access the row for their tickets to prevent theft.
33. Hello Neighbor - Community engagement tracking app. Neighborhoods are registered onto the website and users can join by verifying their address. Every member of the household can create an account and track their engagement with other people in the neighborhood. Home page for the neighborhood features upcoming events and a leaderboard of tracked engagement. Tracking engagement would always be voluntary.

Members with high community engagement are given rewards from the community (Depended on fundraising/collaboration with the HOA).

34. Feature for #33: Users should be able to send gifts directly to one another through the website, anonymously or otherwise. These would just be some kind of token or coin that exists on the website.
35. Feature for #33: Each event created on the site should have a corresponding chat thread for planning. Users should also be able to delegate tasks to one another through the chat or a separate event menu. Completed tasks you were delegated for should be rewarded.
36. TravellerPack - A website that sells equipment/kits for various outdoor group trips. Makes it easy to purchase everything each member of your group needs, lessening hesitation of wary members. Each member can create a "Travelpack" that is stocked with equipment they would need based on the trip, plus any snacks or other items they feel like adding. The backpacks and other equipment can be shipped to the members or to the event location directly (Depending on approval from the location). This is especially convenient for heavy equipment, or if the group doesn't have a vehicle capable of storing everything.
37. Feature for #36: The website could also offer pre-planned itineraries to easily create an entire trip on the site. This could include plane tickets, hotel/housing, cost of entry to the park/venue, and the travelpacks for each member.
38. WhereWall - A picture frame that shows recent shots taken at your selection of nation or local parks. Could also be modified to show pictures from local events or parties. Alongside the picture, the frame gives information about the event and upcoming events that are similar.
39. Feature for #38: Picture frames can be synced with other people in your neighborhood, family, or community, to easily push pictures to everyone else who you'd like to see them.
40. Feature for #38: Could also be used to push notifications, messages, to-do lists, or other things you'd like other members of the household to see.

After first critique:

41. WorryWatch - A watch that knows when the user is inside or outside and for how long they've been there. If the watch detects that you've spent over x amount of hours indoors in one day, or have spent over y amount of hours indoors continuously, the display on the watch will change to indicate your lack of time spent outdoors. The watch will show a similar change if you reach your target amount of hours spent outdoors. These values are adjustable by the user.
42. Feature for #41: Instead of just telling the user they've been inside for too long, the watch could recommend different activities to change its mood back to normal.

43. UberMeets - An on-demand event scheduler/ticket buyer. Add events to the app that can be pulled when other users decide to look for local events. Instead of requesting a ride to a particular location like in the normal Uber app, this app will take the user to the event they select. They'll be charged for the ride there. Kind of combines the impulse to purchase food like on UberEats, with the need to go somewhere like on Uber. Now users can browse for events (instead of food) and get their ride as well.
44. Feature for #43: If the user doesn't need a ride to the event, the app can still be used to purchase tickets (If necessary) or provide information. At the least, the user now knows where the event is, they could just go there themselves.
45. Feature for #43: The app could show how many other people have signed up for the same event.
46. Feature for #43: The user should be able to invite their friends to the event and make one group purchase.
47. Where'd You Walk? - An interface/system to be used by parks. Asks users to sign in when they arrive at the park and accesses the users GPS information. This access is automatically removed once the user leaves the park. While the user is walking around the park, their path is being anonymously tracked and the information is sent to the park. This gives the park information about how their visitors move around, the popularity of certain locations, and if there's a certain order people prefer. The user is rewarded with discounts throughout the park by showing that they are logged in.. If the park is public and doesn't have any attractions with a price, the user is rewarded with a gift card or other substitute reward, decided by the park.
48. Feature for #47: The discount is increased if the user is registered with a group, with the discount amount increasing based on the size of the group
49. Feed the Field - A soccer field, basketball court, or any other type of open area used for a sport, that the users/community must take care of as if it's a living thing. If no one has come to the field (No one has been playing), the website/app connected to the field will send out a notification to everyone in the community that the field is hungry. Sensors around the field will track activity, and the field will only feel "full" after a certain amount of interaction on the field (This won't be a large amount, we don't want to make it too difficult to feed the field).
50. Where the Truck - Pop-up food truck that pings users its location.
51. Climber Sight - AR glasses that show the user what rock to grab next.
52. Outdoor Only - Social media website that is only accessible when you are in remote outdoor settings.
53. Daily Walk - App that recommends walking trails for different scenarios (hiking, dog walking, etc.).

54. Feature for #53: App tracks difficulty of trails you hike and adapts its recommendations based on your preferences/progress
55. Hidden Treasure - Community treasure hunts where hints are given on a website/app.
56. Steam Friends Plus - Steam rewards system for steam friends to meet each other in person.
57. V-Pet - Virtual pet that requires you to take it outside for it to stay healthy.
58. Pass Me! - Game where user gains teammates based on how many people they pass in public that also play the game
59. Feature for #58: Gaining teammates could be similar to gaining party members in an rpg. Users should be able to customize their avatars with different “classes” (Shooter, brawler, mage, healer, etc).
60. Feature for #58: If two users who have passed each other are playing the game at the same time, they should be notified, and offered to play in a co-op mode of the game.
61. Shoe Game - Shoe that unlocks new patterns based on step counts
62. Shoe Love - Shoe that changes patterns based on reviews from past dates
63. Where Am I? - Game where users post pictures of themselves in a location outdoors, other users are challenged to guess the location or go there themselves
64. GPgueSs - Directs the user to a random user-defined location where an event is happening
65. Spooky Speaker - Speaker that plays ominous noises when little movement is detected from the user
66. Feature for #65: Could also be paired-synced with the users LonelyLight
67. Shock Clock - Watch that detects physical activity, gives a slight shock if sedentary for too long
68. LoCoup - Coupon service for local businesses that incentivize people to go outside.
69. OxyClothes - Clothes that change color depending on exposure to fresh air (no fresh air = ugly colors)
70. XPRNC - App to display community-sponsored activities in your neighborhood
71. CAMP.org - A website where you input your personality traits and it suggests clubs to join.

After second critique:

72. Actually Date - A dating app that rewards you by actually going on dates. It shows your profile more often for other people to see and gives you good reviews.
73. Drive-In on Wheels - A truck that doubles as a drive-in theatre where people can watch movies and socialize.
74. Feature for #73: Could also be used as a transport system, users should be able to see where the truck is headed while they are inside and be able to request stops.
75. ScreenSaver - App that will uninstall other apps that surpass a certain usage time
76. Feature for #75: The app should also recommend other activities for the user, before taking the final step of uninstalling the apps.
77. Social Ping - An app where you can specify your want to socialize (looking for friends, looking for a relationship, etc). If a person nearby also has the same preferences, they will be notified.
78. Textivity - App that sends an embarrassing message to a random contact if no physical activity is detected for an extended period
79. Feature for #78: Could also send a message if the user seems to be active but hasn't left the house in x amount of days. (They could just be doing enough physical activity indoors to bypass the app)
80. WiFiCutter - System that cuts the users wifi for a short time if they are inactive for too long
81. Feature for #80: WiFiCutter could also be used to limit screen time at home and lock certain apps on your smartphone
82. MusicMatch - App to find those with similar music tastes around you
83. Feature for #82: Connection to Spotify and popular dating apps to better connect people based on what they actually listen to
84. Feature for #82: App can also be used to see upcoming concerts or meet and greets close to you.
85. Feature for #82: App can also be used to find people with similar hobbies or interests other than music
86. Lonely Light 2 - Light that changes brightness based on outdoor activity and relationship status.

87. Chatly - Anonymous location-based group chats
88. PictureThis - Tracking & picture-sharing app for national parks (like the stamp page of your passport for national parks but with images)
89. pARk - AR interaction for parks/trails; enhanced versions of the educational plaques you currently find at parks
90. Climbr - Heat map for popular climbing spots

After third critique:

91. Combine Pass Me!, Traveler Pack, CMPING, Park Coin, XPRNC - This combination of ideas has the potential to become an app that tells users about local events and rewards them for going to them.
92. Combine Drive-in On Wheels and Where the Truck - A truck that is a mobile drive-in theatre and also provides food.
93. Combine Feed the Field and Daily Walk - An app that sends updates to users about which fields or trails are not being used enough. Incentives users to take advantage of unused community resources.
94. Combine Actually Date and Shoe Love - A dating app that incorporates the customizable shoes related to the "Shoe Love" idea.
95. Combine Camp.org and Hello Neighbor - A website that recommends clubs and people near you based on your personality traits.
96. Combine "Pass Me!" and Actually Date - A dating app that incorporates the friend finding features associated with the "Pass Me!" app.
97. Combine Music Match and Actually Date - A dating app that incorporates users' love for music. Find dates with the same music taste.
98. Combine XPRNC and Hello Neighbor - An app that displays all community sponsored events in the area and can be used to see your neighbor's activities, send invites, and see who you know that's attending.
99. Combine LoCoup and Where the Truck - Coupons generated to spend at your local "Where the Truck", food truck.

After 4th critique:

100. CAMP App - A RPG game that lists nearby, outdoor activities and rewards users for attending them.

Appendix B - Ideation & Critique Images

