WildWise: Hi-fi Prototype

Jaycee Helmer, Robert Plummer, Irena Zheng, & Sairam Karthikeya Vajapeyayajulu Venkata

Table of Contents

1. Project Statement 3-5
    a. Project Goals 3
    c. Design Tenets 4-5
2. Lo-Fi Prototype 5-7
    a. Design Cheratte 5-6
    b. Moodboard 7
3. User Personas 7-9
4. Digital Narrative Prototype 9-11
    a. Scenario
5. Mid-Fi Prototypes 11
6. Usability Testing 11-13
7. Findings & Themes 13-14
    a. Mobile Phone
    b. Watch
8. Recommendations 14-16
9. Visual Design 17-18
    a. Branding and Style Guide 17
10. Hi-Fi Prototypes 18
11. Conclusion 19

1. Project Statement

a. Project Goals

The ultimate mission of WildWise is to empower outdoor enthusiasts, survivalists, and others by enhancing their outdoor experiences through safety and information, while supporting their adventures in the great outdoors.

The goals of WildWise are as follows:

2. Create a safe environment for the user: WildWise has numerous safety features such as being able to send your location to emergency contacts and the authorities, upload your medical information, and being able to call 911 with the push of a button.
3. Provide current, reliable information: WildWise provides users with real-time trail updates, weather updates, nearby danger updates, and their exact location via longitude and latitude coordinates.
4. Encourage engagement with other enthusiasts: WildWise allows users to report any potential hazards along the trail or spotted in the area, which is quickly shown on the trail map for other users in the same area.
5. Allow personalization of outdoor experiences: WildWise promotes personalization by empowering users to customize the exact hiking or camping experience they want, from the unique trail they hike to the specific wildlife they want to see along the way.
6. Create opportunities for partnerships and collaborations: WildWise would be helpful for all, from a novice outdoor enthusiast to a seasoned survivalist. WildWise's inclusivity makes it the perfect app to partner with National Parks, outdoor gear brands, and environment conservation groups to promote safety and exploration of the wilderness.

a. Design Tenets

1) User Safety First: Ensuring user safety is paramount. The application should facilitate quick, seamless access to crucial safety features and information.
2) Ease of Use: The application interface should be designed for intuitive navigation. This means clear instructions, larger buttons, and straightforward menus to ensure user comfort even in critical situations.
3) Efficient Information Access: Information regarding terrain, wildlife, or weather should be readily accessible and easy to understand, using visuals like maps or animal/plant illustrations where necessary.

4) Reliability in All Conditions: The application should function reliably even in remote areas with potentially limited connectivity. Essential features should be able to operate offline or store important data locally.

5) Real-time Updates: Users should receive real-time updates regarding weather, trail status, and wildlife sightings, providing the most recent and relevant information.

6) Promoting User Interactivity: Encourage user interaction by allowing users to report sightings, share locations, and contribute to the collective knowledge and safety of the community.

7) High Visibility Design: Given the potential for outdoor glare or dirty screens, high contrast and legibility should be prioritized in the design.

8) Seamless Experience Across Devices: The application should provide a consistent user experience across different devices (like watches and mobile phones) so that users can switch between them as needed.

9) Conservation Consciousness: The application should promote respect for the environment and wildlife through reminders or informational tips.

10) Personalized User Experience: Offer customization options to match individual needs or preferences, enhancing user engagement and satisfaction.

2. Lo-fi Prototype

a. Design Cheratte

Objective: The primary objective of our Design Charrette was to brainstorm and sketch initial concepts for WildWise, an application tailored for both watches and mobile phones that provides users with information on terrain, wildlife, and potential hazards in their area.

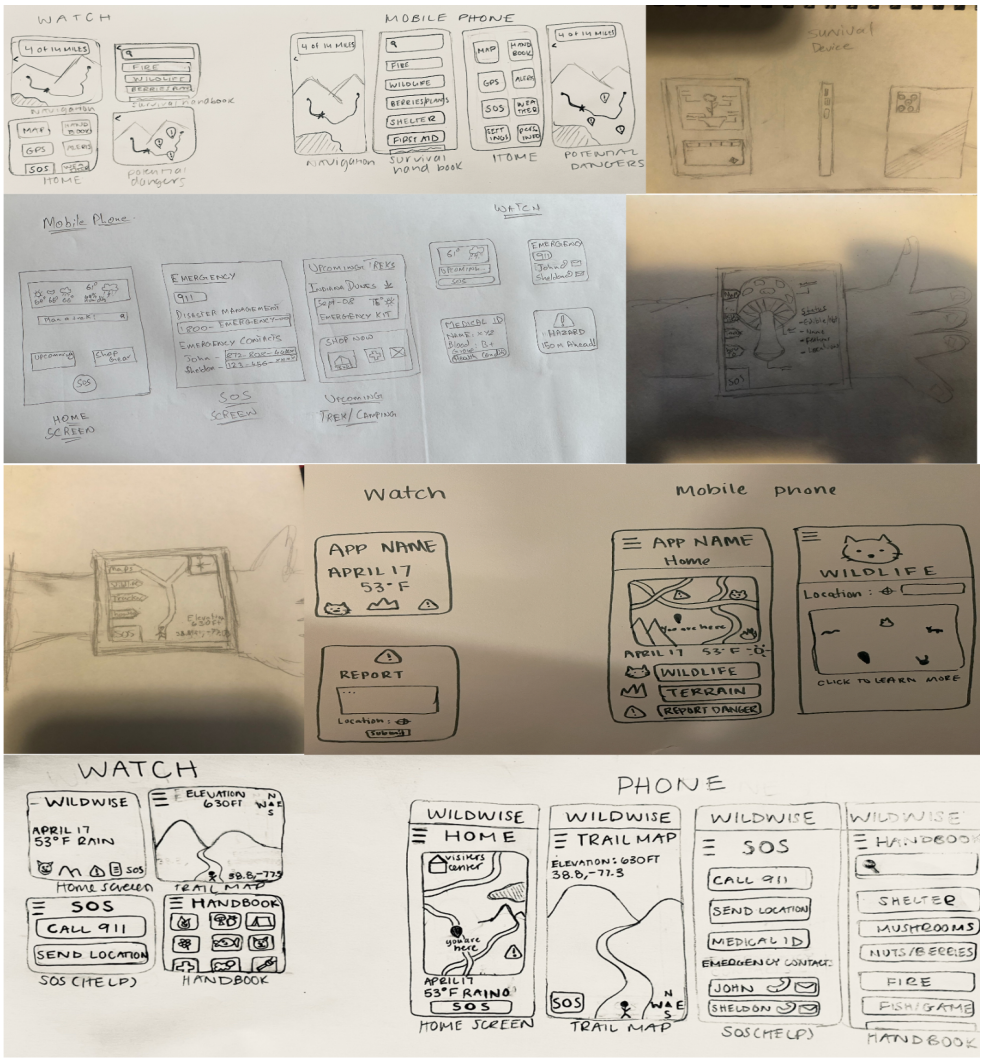
Participants: The brainstorming session included our team of dedicated designers: Jaycee Helmer, Robert Plummer, Irena Zheng, and Sairam Karthikeya Vajapeyayajulu Venkata.

Process: We kicked off our session with a group brainstorming activity to gather diverse ideas. This was followed by independent sketching by each designer, allowing for a variety of interpretations and solutions to emerge. After this, we engaged in a group discussion to refine our individual concepts, combining the best aspects of each into a cohesive design.

Key Ideas: Some prominent ideas that emerged from our session included real-time updates on wildlife sightings and weather conditions, GPS tracking and location sharing for enhanced safety, and a feature allowing users to contribute information to the WildWise community.

Outcome: We successfully synthesized our key ideas into a final group sketch. This sketch presented a clear visualization of our vision for WildWise, showcasing how it would provide valuable insights and safety measures to outdoor enthusiasts and survivalists.

Next Steps: The immediate plan following our Design Charrette is to develop digital wireframes and functional prototypes based on our final group sketch. User testing will follow to ensure that our design meets user needs effectively and to make necessary refinements.



b. Moodboard

Our group created a moodboard to begin creating the visual design of our application. We chose a “woodsy” color palette to represent how it is to be used for nature activities, examples of icons, and more.



3. User Personas

After the execution of the design charette and the creation of the moodboard, our group focused on our primary target audience of users. As WildWise is a hiking and camping app, we chose our primary target audience as outdoor enthusiasts, and our secondary target audience as survivalists. Then, we created user personas to further understand the needs, desires, and frustrations of our target audience.

a. Primary: Outdoor Enthusiast

For our primary user persona, we created Sarah: an outdoor enthusiast. She represents the users that will primarily use WildWise to camp, be

prepared, find new trails, and learn about the area. She hikes and camps as a leisure activity, but does not consider it a lifestyle.

Name: Sarah	Goals/Motivations	Frustrations	Sample Quote
	Hike and Camp as much as possible Learn about Nature Staying safe when hiking alone	Difficulty planning hikes Afraid to hike alone Has minimal knowledge about wildlife and terrain	"I love hiking and camping but I want to be as prepared as possible to ensure my safety"

Demographics	Narrative/Biography
Age: 28 **Education:** Bachelor's Degree **Family Status:** Single	Sarah is a hardworking professional who likes to spend her free time out in nature. She wants to spend her weekends hiking and camping as much as possible, but wants to know as much as she can about the wildlife and terrain around the hiking trails and sites where she will be camping. She is looking for a mobile app that has all of the information she needs to have a fun, safe hiking and camping experience.

b. Secondary: Survivalist

For our secondary user persona we created Jack: a survivalist. Jack is a seasoned hiker and camper and considers it to be a way of life. Jack represents the users that will primarily use WildWise to survive in the wilderness, be prepared for any danger, and share knowledge with others.

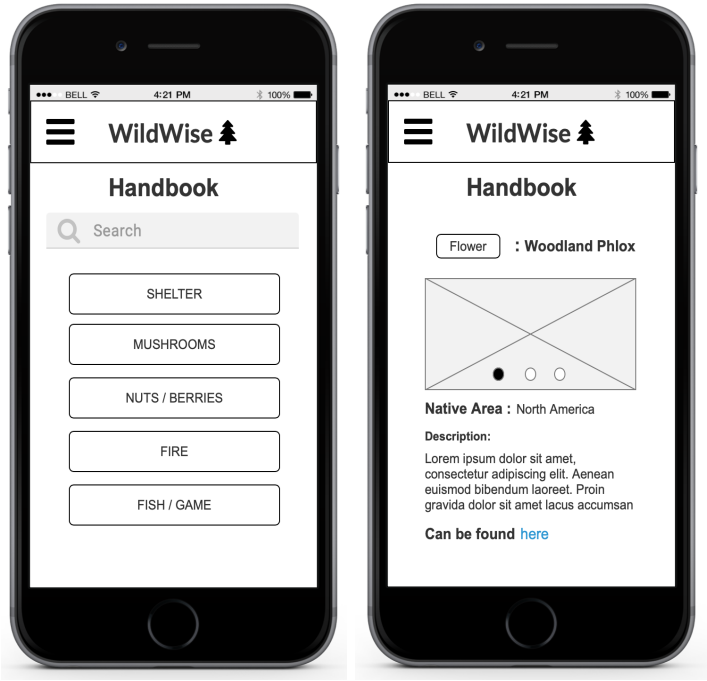
Name: Jack	Goals/Motivations	Frustrations	Sample Quote
	Learn how to survive in the wilderness Be prepared for any danger Teach his kids wilderness skills	Cannot find information on specific hiking and camping areas Difficulty finding ways he can share knowledge with his kids	“Survival skills are essential to learn in case of an emergency, and I want my family and I to be prepared for anything”

Demographics	Narrative/Biography
Age: 40 **Education:** High School Diploma **Family Status:** Married with two kids	Jack has always enjoyed learning survival skills and exploring the wilderness with his family. He has learned many useful survival tips over the years, but has had trouble finding information specific to certain mountains and trails. Additionally, he wants his family to learn the same skills in case of an emergency if they were to get separated. He wants a mobile application that each family member can learn from and have if an emergency arises.

4. Digital Narrative Prototype

Our group created a narrative digital prototype to demonstrate a possible user journey through our application, and to show how it could benefit possible users of WildWise.

In this narrative, we follow Sarah, a first-time solo hiker using WildWise to prepare and embark on her journey. After downloading the application upon a friend's recommendation, Sarah familiarizes herself with the region's flora and fauna through the app's Handbook. Notably, she learns about the Woodland Phlox, a flower found along her intended trail.



Before her hike, she uses the app to confirm her elevation and route on the Trail Map and ensure there are no nearby dangers. The real-time data provided by WildWise gives her the confidence to proceed.



Along the trail, she successfully spots the Woodland Phlox, validating the app's accuracy and usefulness. With WildWise's help, Sarah has a safe, enjoyable hiking experience, and feels motivated to plan her next outdoor adventure. The application effectively provides guidance and reassurance, proving its value as an indispensable tool for outdoor enthusiasts.

Based on our lo-fi prototype, we added interactivity, more pages, and finalized our mid-fi prototype. You can view the mid-fi prototypes for the mobile channel and the watch channel below.

5. Mid-Fi Prototypes

c. Mobile Phone Prototype Link

d. Smart Watch Link

6. Usability Testing

Our group conducted usability testing to determine any highlights or challenges that may affect the navigation and comprehension of the WildWise application. All testing was performed and recorded through Zoom and required that participants shared their screens with the observer. Testing was performed either on the smartwatch or mobile phone version of the application. After obtaining verbal consent to participate, participants were asked warm up questions to determine demographic information and previous experience with outdoor activities. Participants were then asked to perform a series of tasks through the application in conjunction with scenarios put forth by the observer. After the testing participants were asked wrap-up questions. Participants were asked questions relating to difficulty with the application, personal use, value to other users, and improvements they would like to see.

Participant	Age	Gender ID	Channel

Mary	56	Female	Mobile Phone
Amrita	57	Female	Smart Watch
Jacob	23	Male	Smart Watch
Agnes	34	Female	Mobile Phone
Richard	26	Male	Mobile Phone
Penelope	22	Female	Smart Watch

Name	**Age**	**Gender ID**	**Outdoor Experience**	**Testing Device**	**Channel**
Amrita	57	Female	Frequent Hiker	Mid-Fi Digital (Axure)	Smart Watch
Likes	• Accessibility of trail map • SOS button available on pages • Comprehension and availability of handbook				
Dislikes	• Weather not available on menu page • Unable to input health information • No explanation for yellow caution symbols on trail map				
Concerns	• No distance measurements on trail map • No login page to create account • Difference between human-related dangers and wildlife hazards				

Name	**Age**	**Gender ID**	**Outdoor Experience**	**Testing Device**	**Channel**

Richard	26	Male	Frequents National Parks	Mid-Fi Digital (Axure)	Mobile Phone
Likes	• "Straight forward application • SOS button with addition of emergency contacts • Clear reporting of wildlife sightings				
Dislikes	• SOS button missing on homepage				
Concerns	• No clear areas of available water or food • No locations for safe areas				

7. Findings & Themes

The main issues discovered across both channels focused on the trail map page, the missing login page and ability to have an account, the incident report page, and the menu on the smart watch. With the findings, we developed the following overarching themes:

- Trail map
    - Users were confused as to why they could not choose their own hike, and that there was not a page for choosing different hiking and camping options.
    - User was confused by the yellow triangles (caution symbols), and became frustrated when they tried to click on them, nothing happened.
    - There is not enough information provided. The following aspects were expected but missing: Distance of hike and how far the user has hiked, location of safe areas (e.g. ranger stations, campsites), and type of terrain (e.g. location of water sources).
- Missing login/account creation

    - User was confused as to why there was not a login page or a way to create an account.
    - Concern with being able to save personal information, data, trails, etc. if an account can't be made.
- Incident Report
    - Mobile Phone: Confused with differences between the categories listed.
    - Watch: Users wondered how they would input a danger if it did not fall under any of the categories listed.
    - Watch: Unable to type on Apple Watch and typing on a smaller screen is incredibly difficult.
- Menu (Smart Watch Channel)
    - Unable to close the menu after opening it. Menu stays open, obstructing the view of the rest of the screen.
    - Menu icons were confusing, users could not identify their purpose and disliked the lack of a weather icon.
    - Menu icons did not stand out against the page underneath. They overlapped and caused both the menu icons and the information on the page to be difficult to navigate and see.

After our group recorded our findings and developed themes, we produced recommendations for the next design iteration for our hi-fi prototype.

8. Recommendations

- Trail Map
    - Add a page to allow users to find trails near them, save their favorite trails, and customize their overall hiking experience.

    - Add the distance of the entire trail and the user's progress, location of safe areas and points of interest (e.g. ranger stations), and type of terrain (e.g. location of water sources) to the trail map page.
    - Allow the caution symbols to be clickable, and provide information of the reported danger or sighting when clicked.
- Missing login/account creation
    - We will create a login page.
    - We will allow the user to create an account, input personal information, and save information on trails, handbook pages, etc.
- Incident Report
    - The Human-Related Category will be removed to eliminate confusion.
    - We will change the text input on the smart watch channel to a categorical menu with different dangers listed. Additionally, we will add an "Other" category if the danger does not fall under one of the categories listed. We will also include a voice input option.
- Menu on Smart Watch
    - We will add interactivity to the menu that allows it to be opened and closed upon each click.
    - Our group will explore other menu icons and replace current icons with the most concise representation of each menu category.
    - We will add icon labels to each menu icon to further clarify their purpose.
    - We will add weather to the smart watch channel menu.
    - We will add a background to the menu once it pops up to eliminate visual strain and confusion. For example, a small screen behind the menu icons that makes it stand out against the rest of the screen and reduce the blending together of information.

With these recommendations for design, our group's focus was on solving the paint points and frustrations endured by the participants during the usability testing. However, before beginning the next iteration of our prototype, we created a style guide to ensure the look and feel of WildWise would be communicated across both channels.

9. Visual Design

a. Style Guide & Branding

Style Guide

LOGO

WildWise

WildWise

ALT. LOGOS

WildWise

WildWise

COLOR PALLETE

Hex #000000	Hex #FFFFFF	Hex #1E3F29	Hex #688770	Hex #B3B3B3
RGB 0 0 0	RGB 255 255 255	RGB 30 63 41	RGB 104 135 112	RGB 179 179 179

TYPOGRAPHY

Headline

BEBAS

REGULAR*

ABCDEFGHIJKLMNOPQRSTUV

WXYZ

Body copy

Source Sans Pro

Regular*

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj

Kk Ll Mm Nn Oo Pp Qq Rr Ss

Tt UuVv Ww Xx Yy Zz

ICONS



BUTTONS

Primary Button

Secondary Button

This style guide is inspired by our moodboard shown on page 8. Using the moodboard, our group also used the grayscale colors of black, white, and gray to fabricate a simple and minimalistic design. We also added two shades of green to represent nature and the wild, which is associated with the main purpose of WildWise. The logo of WildWise was created by using the font “Alt Haas Grotesk” and the imagery of a sun peaking over a mountain range, to communicate feelings of adventure and exploration.

For the typography, we chose the fonts Bebas Neue and Source Sans Pro as they have similarities in style, but are ultimately distinguishable from each other. The icons we created are the same from the mid-fi prototype, but with one of the shades of green. Lastly, we demonstrated what our primary and secondary buttons will look like on the channels. With the style guide and the recommendations for design, we created the usable and aesthetically pleasing hi-fi prototypes for both channels which can be viewed below.

10. Hi-Fi Prototypes

a. Mobile Channel

Link: https://tci5md.axshare.com

Log-in Information:

Email: Johnsmith@depaul.edu

Password: 12345

b. Watch Channel

Link: https://1i83hc.axshare.com

11. Conclusion

Our group started with a design charrette and moodboard for a potential application for a mobile phone and watch channel. By using the iterative design process, we created a narrative digital prototype, user personas, a mid-fi prototype, conducted user testing, and created a hi-fi prototype for WildWise. The iterative design process allowed us to find the strengths and weaknesses of both channels, modify it according to user's likes and dislikes discovered in the usability testing, and ultimately finish a polished, interactive mobile and smartwatch hi-prototype.

During this project our group learned many things. We learned how to function as a team and the significance of every stage of the user-centered and iterative design process. Lastly, we learned that "the user is not like me" through usability testing, and the importance of going through multiple iterations to push through our personal boundaries of what we thought we could do.