# PowderPal

## Final Prototype

CS 67: Human-Computer Interaction
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## Product Image



## Value Proposition/Tagline

Say goodbye to skiing solo.

## Final Interactive Prototype

### Links

Static Mockups:

https://www.figma.com/file/hGCLwU5ebb6vLSXq0C5ZMs/PowderPal-Hi-Fis?type=design&node-id=0%3A1&t=VMlz2cobq5FzPOvx-1
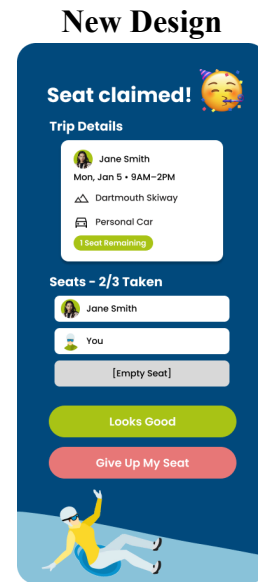
Interactive Prototype:

https://www.figma.com/proto/hGCLwU5ebb6vLSXq0C5ZMs/PowderPal-Hi-Fis?type=design&node-id=1-1559&scaling=scale-down&page-id=0%3A1&starting-point-node-id=1%3A1347

## Overview of Changes Made

**Aesthetic Design Choices:** Most of the feedback we received from the Heuristic Evaluation focused on minor design choices. We revised our designs to incorporate these changes by adding color contrast between claimed and unclaimed seats, removing button hover states, and adding additional vector art to differentiate similarly-designed pages. Below is one example of an aesthetic design change.
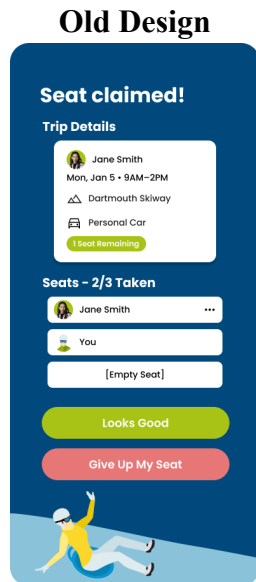
| Old Design | New Design |
|---|---|
|  |  |
| In the old design, the "Empty Seat" cards did not contrast with the filled seats. Additionally, the screen itself was almost identical to the previous screen in the flow. | We changed the fill of the "Empty Seat" cards to show contrast between active and disabled content and added the celebration icon to distinguish this screen from the previous screen. |

**Usability Issues:** A few prototyping issues were noted by our evaluators, so we prioritized those higher-severity issues that were easy to fix. For example, we modified or added some of the button-to-page navigation to more closely align with the users' expectations. Additionally, we resolved a higher-severity issue that caused a button to be obscured by text on the profile page. Below is an example of how we improved the usability of the app.
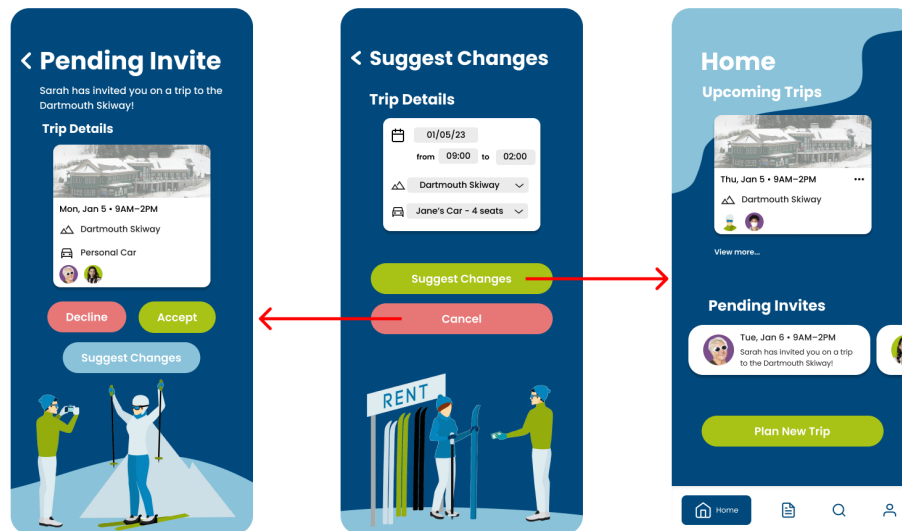


We modified our prototype so that button clicks intuitively navigate the user to pages that make sense in the context of the user journey. Previously, clicking cancel from the Suggest Changes page navigated the user back home, which confused our heuristic evaluators.

**Additional Functionality:** We added some additional functionality to the app in order to improve the user experience. Firstly, we added a completion bar to the onboarding flow to show the system status to the user as they move through the onboarding process. Secondly, we added an additional settings screen that provides help and documentation to the user and allows them to sign out of the app.
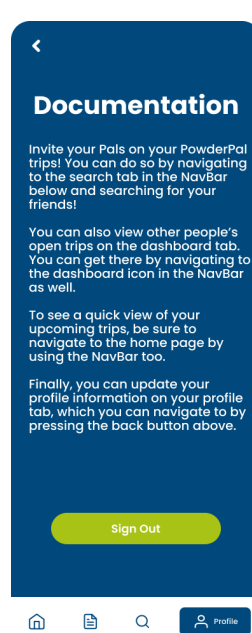


We added a screen that contains helpful documentation about the app. Users can access this screen from the app settings, and it allows them to learn more about the app and sign out if they wish.

## Justification of Changes Made and Not Made

In order to identify and prioritize which changes to implement, each group member reviewed one heuristic evaluation and noted each heuristic violation in a shared document. As a team, we then combined similar items and discussed all suggestions. Most of the changes we chose to implement were low-severity aesthetic changes that did not directly impact the usability of the app. These small items such as changing the fill color of disabled content and removing confusing icons were easy to change in the designs and will contribute to an easier and more intuitive user experience.

There were several suggestions that we decided not to implement, either because we disagreed with the evaluator or the suggestion was outside the scope of our solution. For example, one evaluator suggested including the "settings" button on all screens rather than just on the profile page, but the team agreed that this was unnecessary as it is a standard practice to access app settings from one's profile across many apps. Another suggestion that we chose not to implement was to allow users to filter and order upcoming trips by skill level. Currently, our design sorts trips chronologically. We felt that this additional functionality would not significantly contribute to the user experience and would distract the user from the core functionality of the app.

# Partially Functional Prototype Links

Github Repository: https://github.com/Intro-to-HCI-Spring-2023/p5_v2-Group-2
Demo Video:
https://drive.google.com/file/d/1CAr6DAu8q5sLPmZZao7GilRfjWVu7TbD/view?usp=sharing

# Discussion

Our group learned so much throughout the user-centered design process. Perhaps the greatest takeaway was how to overcome idea fixation, as our group had envisioned a solution fairly early on in the process. By breaking down the project into the various stages of ideation, user research, and prototyping, we were able to consider the needs of our target users rather than jump to a solution that seemed to fit our own needs. We enjoyed receiving feedback from our target population during the lo-fi stage of the project, though we would have liked to test our prototype at the med-fi and hi-fi stages as well to validate the changes we made during each phase of the

project. We decided to implement our partially functional prototype in React Native, which posed several challenges. Firstly, our group members were working on both iOS and Android devices, which made it difficult to anticipate cross-operating system bugs. For example, the Android emulator pushed background images up when the user's keyboard was open, but the iOS emulator did not. Secondly, we implemented our flows in reverse order of their appearance in the user journey, so it was difficult to connect the two task flows together in one complete app. Nonetheless, our group learned from these challenges and developed an admirable minimally viable product.

Several trade-offs were made during each stage of prototyping. During lo-fi prototyping, we sacrificed aesthetics and interactivity in order to get a large quantity of user feedback quickly and efficiently. At this stage of the design process, we were looking to simply validate that our solution filled a key need identified during our user interviews. While the lo-fi prototypes did not offer a realistic experience, they allowed us to gather valuable user feedback on the overall flow and structure of the app. During med-fi prototyping, we focused on adding color and imagery to the app in order to establish "branding." The user journeys were more fleshed out, allowing our heuristic evaluators to interact fully with the app. However, some less critical functionality of the app was left out during med-fi prototyping, so we were not able to validate those aspects of the product. Tradeoffs with hi-fi prototyping involved a significant time investment in exchange for a realistic representation of the app, but with limited scope. Because we had a limited amount of time to complete our working prototype, we had to select two task flows which contribute to the core functionality of the app. Therefore, most of the interactivity that is possible with the med-fi prototype is not available in the functional hi-fi prototype.