

Hermes – Your Smart Travel Companion

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System Concept Summary

Navigation Assistance System

Enhances road trips through suggestion of stops (attractions, parks, restaurants, etc.)

Share and compete with your friends

Travel effortlessly in large groups with synchronized navigation through Caravan mode

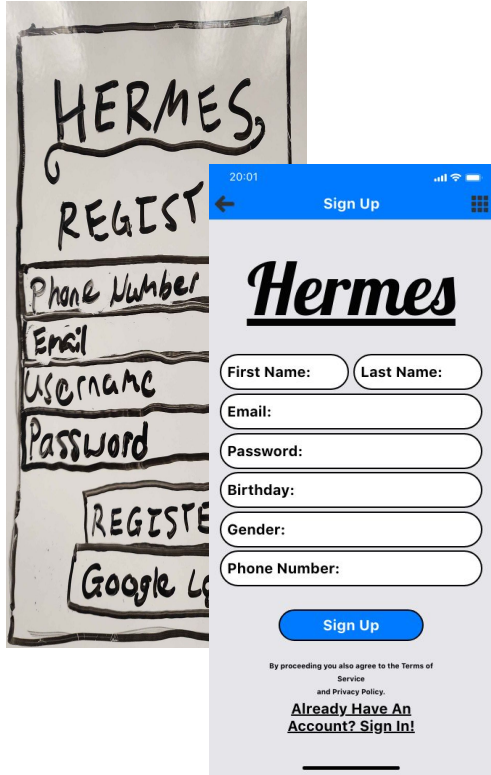
Accessibility support and extensive customization options

Promote your business to Hermes app users

Interactive Design Requirements

Accessibility	Colorblind Mode, font size, theme, and audio settings.
Interface Customization	Familiar layout, dark mode, and themes/voice customization.
Account Management	Verification required, and private profile info.
Safety	Crash detection, audio alerts, and hands-free voice commands.
Social & Sharing	Find your friends, share trips, and compare stats.
Travel Preferences	Traffic alerts, alternate routes, set preferences, and customize routes
App Updates & Feedback	Updates based on user feedback.

Design Evolution



Several design iterations focusing on improvements from user feedback.

Proto.io was used to build an interactive prototype, which helped refine layouts and introduce colors and icons to improve usability and learnability.

Design Evolution

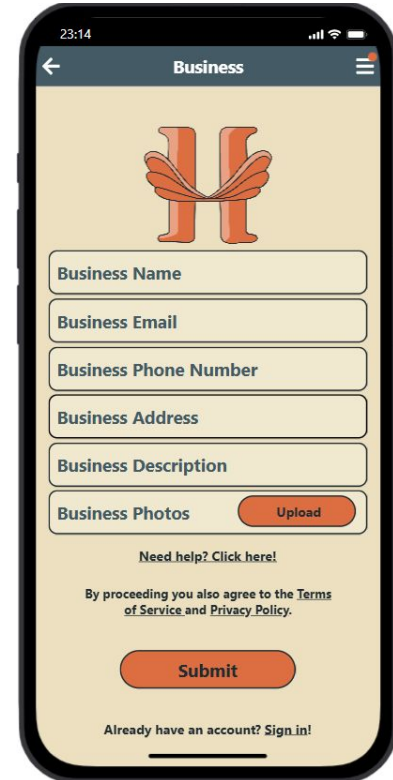
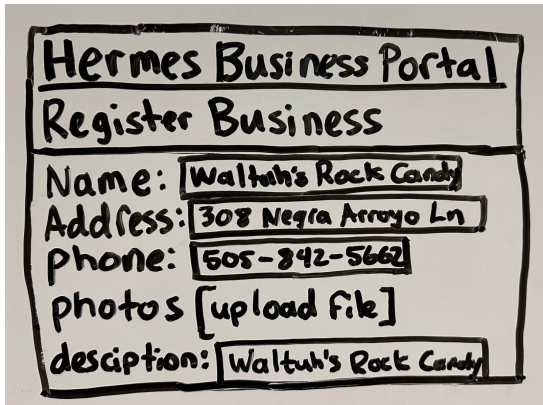
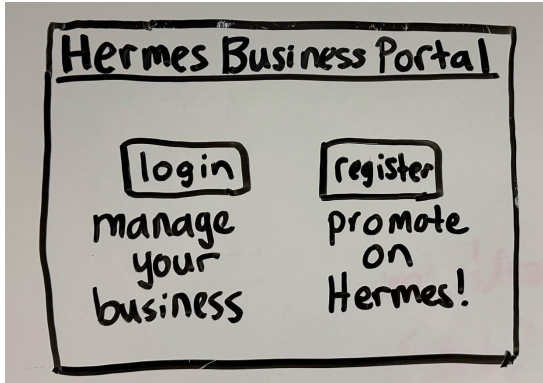


We followed design guidelines for consistency and accessibility, and used familiar metaphors like known icons to make the interface intuitive.

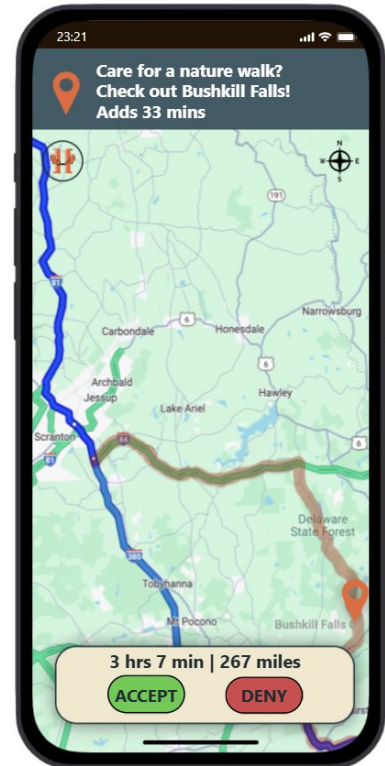
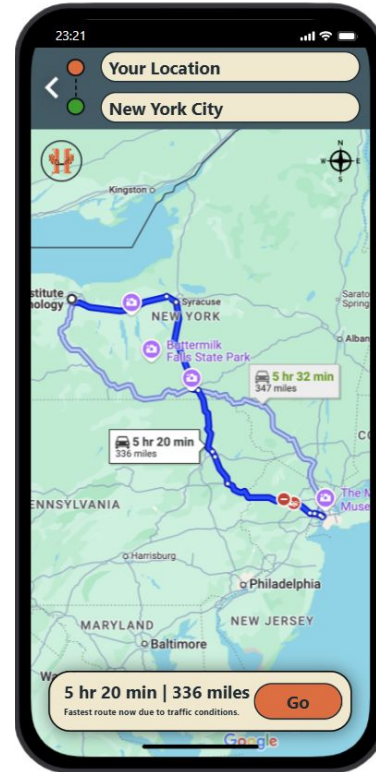
Final design emphasizes clarity, usability, and refined affordances.

Buttons and menus are consistent and easy to navigate, text is readable, colors are accessible, settings are customizable, and features have clear purpose.

Design Evolution



Design Evolution



Live Demo

proto.io

Evaluation and Reporting

User Role	UX Goal	UX Measure	Measuring Instrument	UX Metric	Baseline Level	Target Level	Observed Results
Traveler	Account Creation	User's performance level	User's ability to create an account	Time it takes to create an account	10 mins	5 mins	1 min 24 secs (83.63 secs) on average. In consensus, no major errors occurred, and all users were generally happy. Target levels met.
Traveler	Generating a Route	User's learnability level	User's ability to generate a route	Time it takes to generate a route	2 mins	1 min	15.25 secs on average. In general, no major errors occurred, and most users were content. Target levels met.
Traveler	Modifying Personal Settings	User's learnability level	User's ability to modify their personal settings	Time it takes to modify a setting	2 mins	1 min	39.63 secs on average. In total, no major errors occurred, and a range of emotions were portrayed by users. Target levels met.
Business Owner	Registering a Business	User's performance level	User's ability to register their business	Time it takes to register a business	15 mins	10 mins	59.13 secs on average. Overall, no major errors occurred, and most users were confused at first. Target levels met.
Friend	Sending a Friend Request	User's performance ability	User's ability to send a friend request	Time it takes to send a friend request	2 mins	1 min	32.50 secs on average. In summary, no major errors occurred, and a range of emotions were portrayed by users. Target levels met.

Problems Identified:	Severity Ratings:	Usability Solutions:
The buttons are too small to access the settings page while driving.	3/10	We prioritize safety by discouraging altering settings while driving. We will add a settings icon to make it possible, but a warning will be given when pressed that says, "Are you a passenger?"
Users want more color theme options beyond light and dark mode.	2/10	Give users complete freedom to change the color of the app, but this could cause readability issues.
The color theme is too bland, and the dominant orange color is widely disliked.	5/10	The color theme will be refreshed to use more modern and appealing colors.
Notifications on the sidebar and friends pages would be useful. The current indicator is just a dot or a number, which is not informative enough.	3/10	Add a notification section on the sidebar page that displays the three most recent notifications, and also on the friends page for better visibility and awareness.
The back button/arrow is difficult to locate and behaves inconsistently.	8/10	Standardize the back button placement and behavior across all screens.
Users don't clearly understand the purpose of features like the Friends, Caravan, and Business pages.	8/10	Will provide an informative pop-up when a feature is first accessed. This info will also be accessible via a help icon if it is needed later.
Users have difficulty finding the home page due to the absence of a home button.	2/10	There already is a home button on the sidebar where the Hermes picture is, just click on it, but we can add a text/label below it that says "Home".
The sidebar page lacks visual indicators like icons, making navigation harder.	3/10	Add icons next to each item in the sidebar.
It's difficult to tell whether toggles in the settings page are on or off.	1/10	Change the background colors of the toggle switch to be positive/negative colors (green/red).

Evaluation and Reporting

Outliers

User 3 was on average the slowest and was usually frustrated.

User 7 was on average the fastest and believed completing these tasks were simple.

Reasons: Technological backgrounds and experiences with similar applications.

Data Correlations

Data correlations seemed all but non-existent within our testing, except for one. There seems to be a positive correlation between completing the “generating a route” task and the “sending a friend request” task.

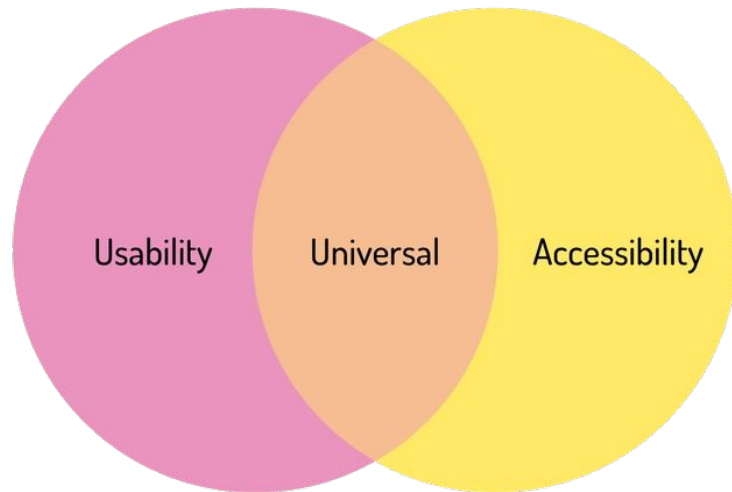
Issues and Solutions

Our problem list revealed that most of our issues stemmed from cosmetic design choices or in one instance, a failure to describe a feature. Our proposed solutions shown in the problem list above ensure to fix these issues and, in turn, meet these users’ needs.

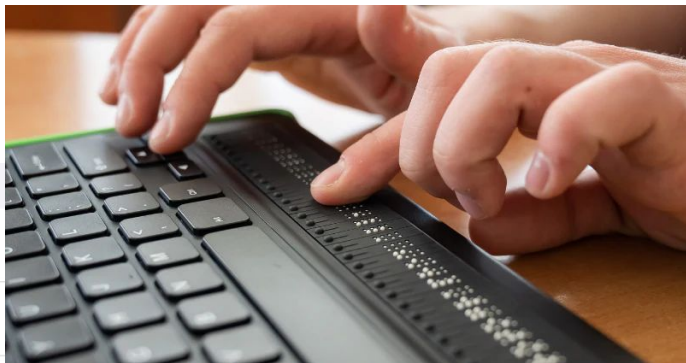
Universal Usability

Universal Usability is designing products and services that are usable by everyone, regardless of background, age, impairment, or ability.

Advances in technology, increased awareness of diverse user needs, and stronger accessibility standards have transformed the way designers approach usability.



Visual Universal Usability



VISION



VoiceOver



Zoom



Hover Text



Display & Text Size



Motion



Spoken Content



Audio Descriptions

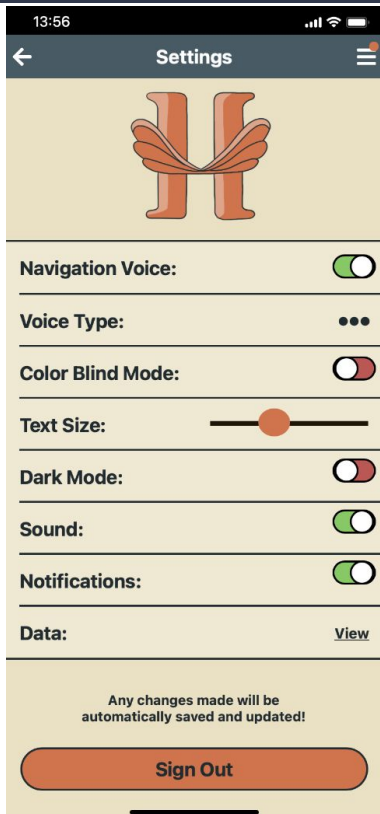
Colorblind, text size, zoom, motion, and text to speech come standard with consumer devices.

Applications and websites need to be designed to work well with native support.

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Hermes Visual Universal Usability



With Hermes, visual universal usability is achieved through extensive visual options:

- Colorblind mode
- Text size
- Dark mode
- Read out navigation directions
- Navigational Voice commands

Reflection

Our usability testing and overall vision for the Hermes Assistance Navigation System were successful, with positive feedback affirming that our UX goals were met. We were pleased with each design iteration and the final outcome.

However, there's still room for improvement, particularly in refining the notification features and leaderboard system. We also hoped to implement a full color-blind mode for better accessibility, but time and software constraints in Proto.io prevented it.

Thank You! - Any Questions?

