HCI-430 Final Report

Automotive Telematics - Application Prototype

November 8, 2016

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Mercedes-Benz

Pilot & Co-Pilot

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The Opportunity

In 2016, automobile telematic capabilities are growing rapidly in conjunction with advances in smartphones, internet and cellular network speeds, and GPS technology.

These advances create an opportunity for automobile companies to offer their customers features that combine convenience, safety, and fun. Our company partners with luxury auto manufacturers to integrate premium telematics with a user-friendly interface for the ultimate driving experience.

The benefits of an automotive application shared between owner and passengers include:

- Convenience
- Navigation
- Ease of use
- Safety
- Hands-free
- Driver undistracted
- Fun
- Shared passenger control
- Streaming entertainment
- Enjoy the ride together

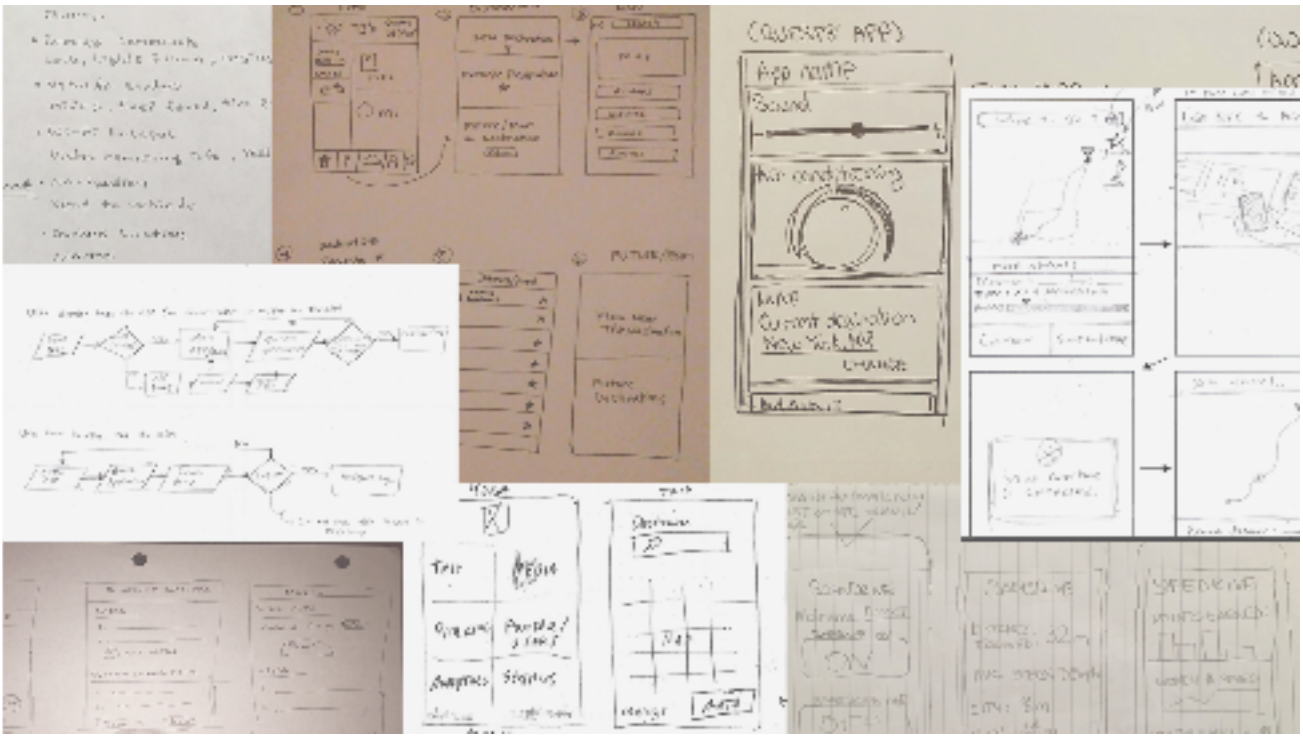
Our Road Warrior concept is a multi-platform automotive application designed to give car owners and their passengers safe and entertaining access to an in-car system.

The prototype design for Road Warrior focused on two distinct users – the owner (driver) of the vehicle and a guest (passenger) in the vehicle. With different needs and accessibility considerations for each user type, a slightly different design approach was applied for each group.

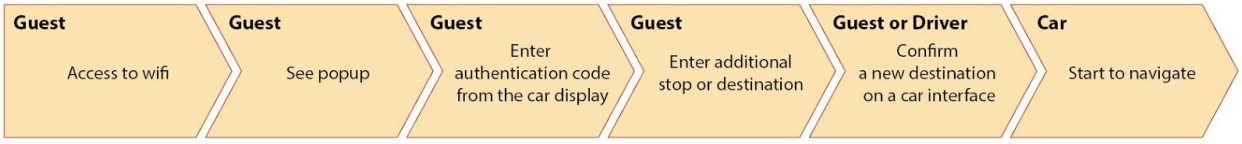
The following report will discuss the mid-fi prototype design for the application, the scenarios and test process for our usability testing, the pitch to sell the application to automotive manufactures, the resulting re-branding effort, and the high-fidelity prototype that resulted from the multiple testing rounds.

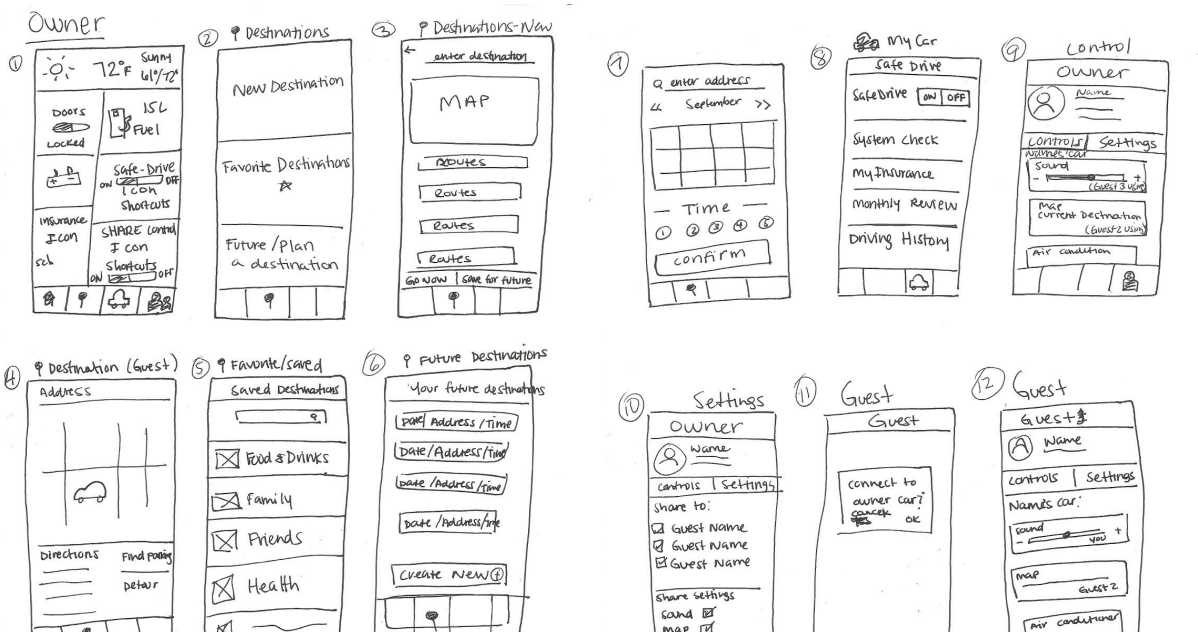
Sketches and Moodboard

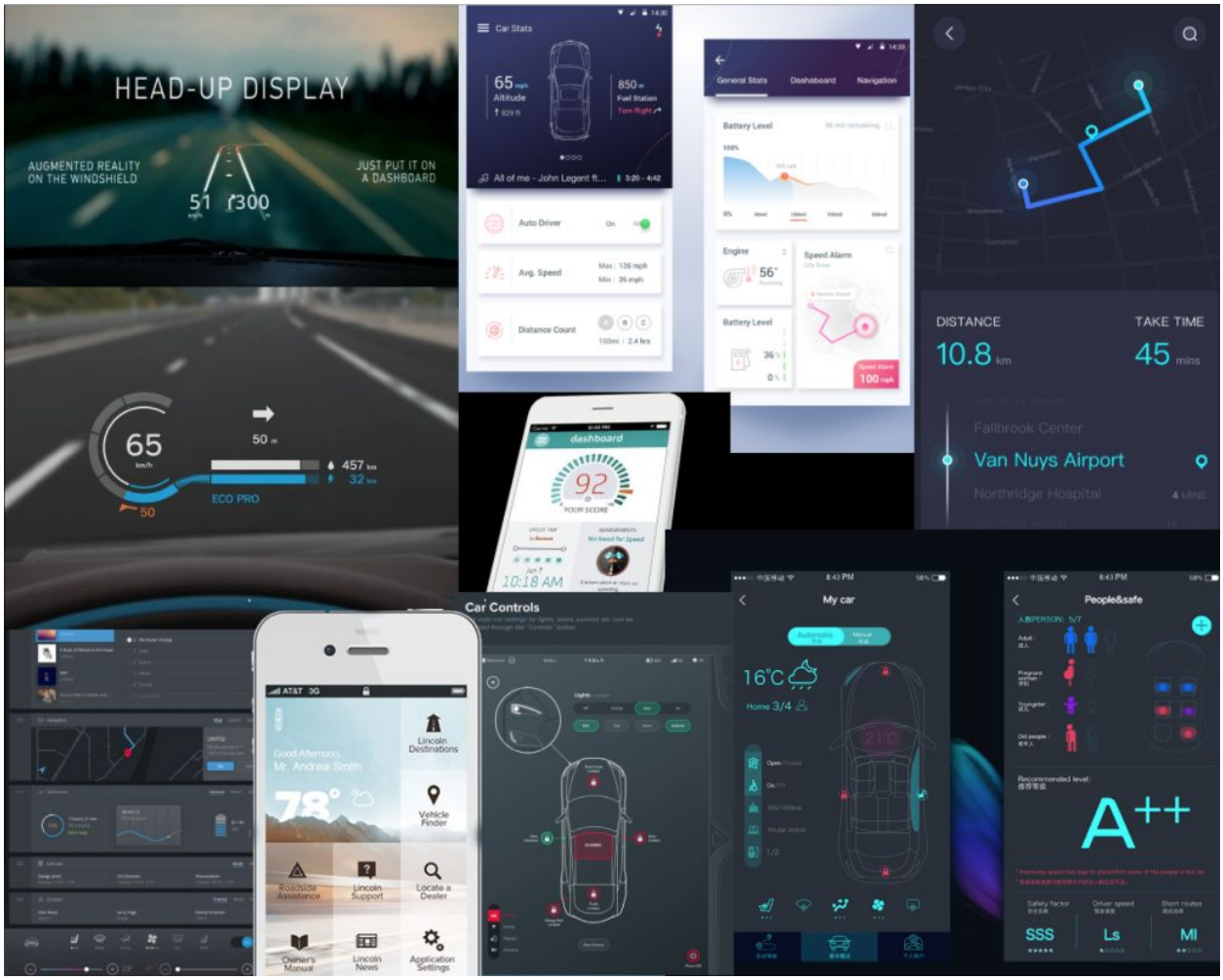
To begin the design process, the team created sketches and concepts individually, and worked iteratively to design a single sketch. A moodboard was built to show the overall design inspiration.



During this phase of ideation, the team sketched and discussed the features of the application. It became clear that a priority feature would be guest access to the application, and how they could best access in-car features like navigation and media. During this time we discussed the pros and cons of the guest accessing the app through a stand-alone application, Bluetooth, NFC, or WIFI. In the end, connecting through an in-car WIFI network won out, as it required the least amount of driver involvement, lowest barrier to simultaneous entry for multiple guests, and most network security.





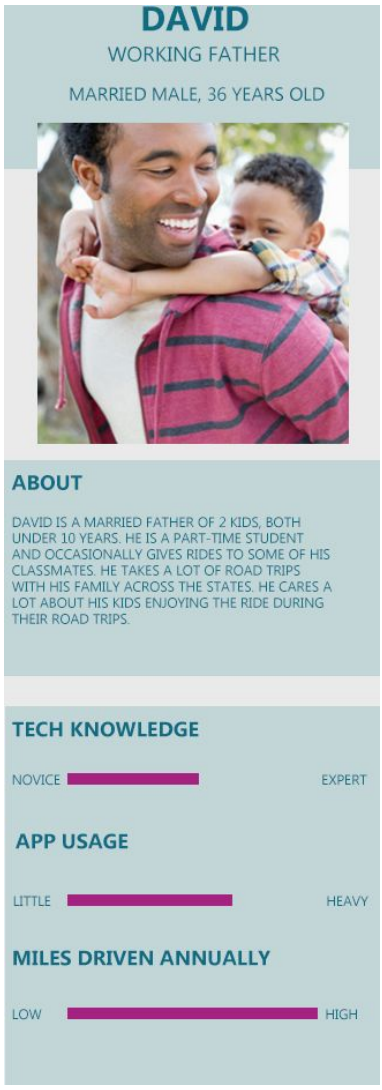


Link to moodboard: https://www.pinterest.com/hci430group2/automotive-ux/

Personas

Personas were developed to provide context and an audience for the design team.

David is our owner - someone who would be looking to provide a safe and entertaining driving experience for his passengers (typically his kids). Kim is guest, someone who might be carpooling alongside a Road Warrior owner, and could use the application to help re-direct the car navigation and in-car entertainment.

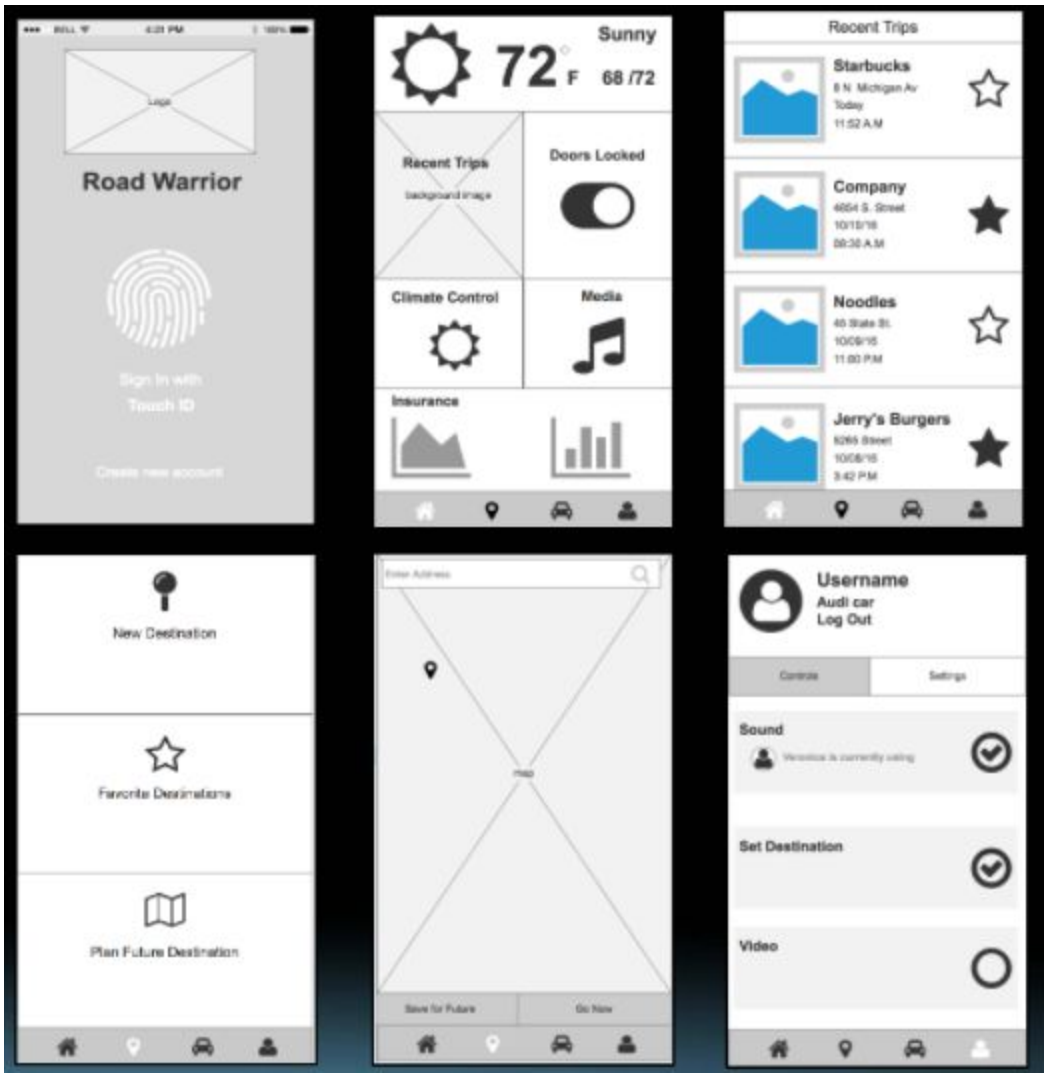




Mid fidelity prototype

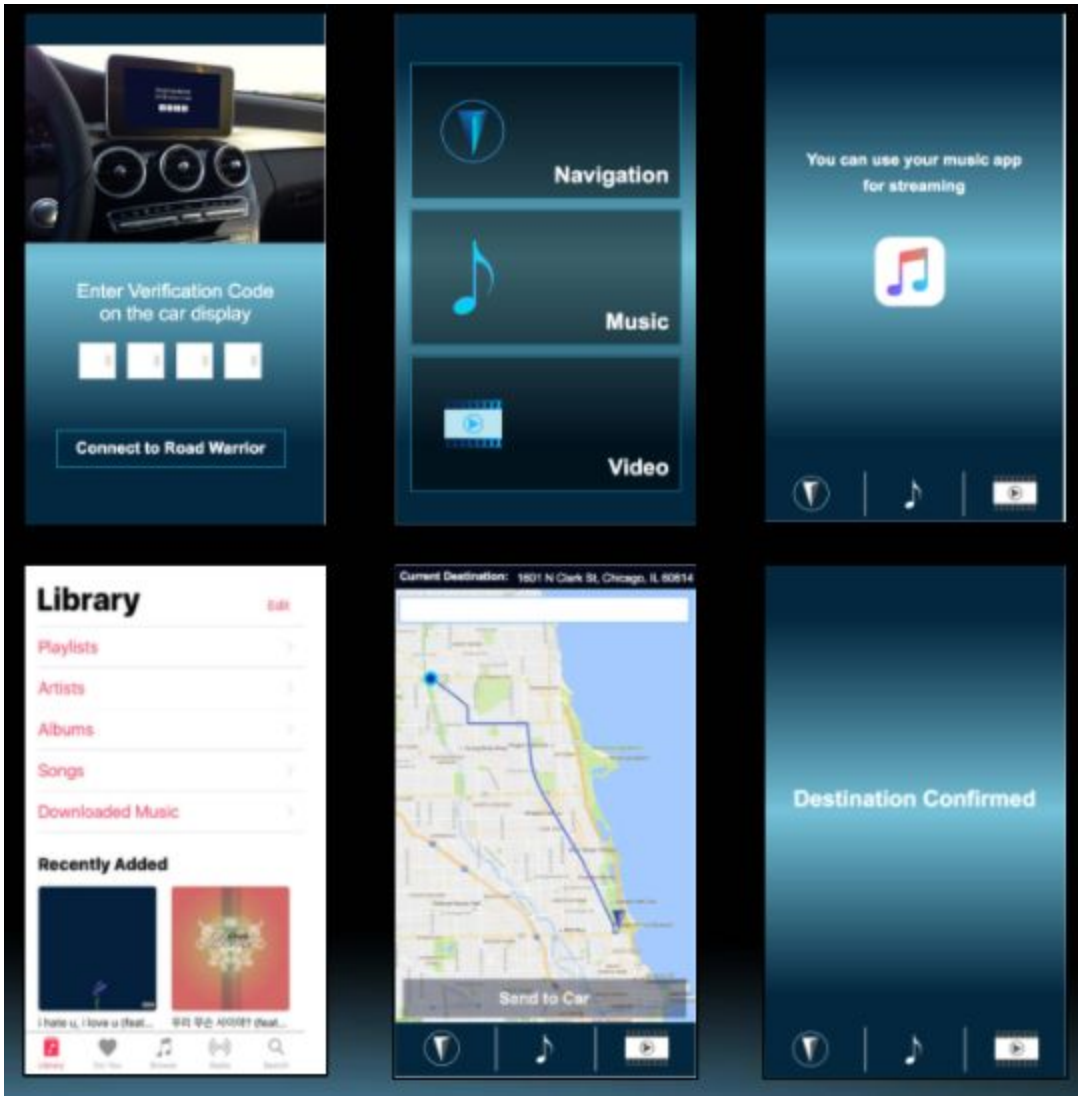
The ‘Owner’ prototype included a robust feature set, including weather, car functions (locks, insurance data, climate control, view recent trips), allowing the car owner complete access to their automotive experience from their smartphone. A mid-fi prototype was built using Axure software, focusing on ‘Owner’ scenario tasks.

Link to Owner prototype: http://e57edc.axshare.com



The ‘Guest’ prototype was designed to accommodate for the in-car passenger needs; mainly applying navigation and media to the in-car system, with guest access through in-car Wi-Fi connection. A mid-fi prototype was built in Axure for guest user scenarios.

Link to guest prototype: http://alc2ec.axshare.com/



Test Protocol for Mid-Fidelity Testing

For this usability test, participants were asked for their consent to participate in the usability study and to be recorded. Each participant was briefed on the aim of the study, on the goals of usability testing, and informed their participation was completely voluntary. The study had two test moderators, and four participants total. The participants were given scenarios for either the owner or the guest usability test. (Appendix A)

The prototype was then presented to the participants on a computer. The moderator asked for participants to follow the tasks within each scenario, taking notes on any thoughts or confusion the user had throughout the task (Appendix B).

Moderators encouraged users to discuss their thoughts and probe participants as necessary, without answering questions and directly ‘teaching’ them how it works. For example, if the participant asked “Is this the right button?” a moderator might respond with something like “What would you expect to happen if you clicked that?”

After the individual tasks were completed, our moderators would ask participants some debriefing questions:

- How was that for you overall?
- Was there anything particularly challenging, frustrating, confusing?
- Was there anything about the task that felt especially easy or enjoyable?
- Anything we could make better or more clear?

Owner Test Scenario and tasks

Scenario
Imagine that you just bought a new car with a fancy new electronic system.
You want to go on a trip with a friend in your new car. Your car has a companion app that allows you to give a passenger the ability to control some of the car’s functions.
Before your friend arrives, you want to set the initial navigation to Starbucks .

Task One
Without clicking or tapping anything, tell me what you see on the screen. What’s going on - what kind of things could you potentially do here?
Using this app, talk me through how you would find and [forward?assign?] Starbucks directions to the car’s GPS/navigation system.

Task Two
Let’s say that this is a destination that you plan to return to, possibly frequently. Show me how you would you save it to easily find later.

Task Three
Now I want you to imagine that your friend is on the way over. Before he/she arrives, you want to limit the car features that the guest can control [add features if needed to be specific - should mirror the happy path on the prototype]. Using the app, talk me through how you would accomplish this.

Guest Test Scenario and tasks

Scenario one
Imagine that you are going on a trip with a friend. He (or she) has a new car with a fancy new electronic system. In this system, you're able to have some control over things using an app on your smartphone. You're in the car, on the way to [somewhere cool :)] You had kind of an early start and didn't have time to have your morning coffee so you're a little groggy. You want to stop for coffee but are unfamiliar with the area. Your friend is too busy driving to search for a nearby coffee shop so tells you how to download the app and connect to his car, which you do.

Task one
Without clicking or tapping anything, tell me what you see on the screen. What's going on - what kind of things could you potentially do here?
You want to find a Starbucks. Talk me through how you would go about finding the address of a nearby Starbucks. [moderator have participant click as appropriate]
Now you want to [forward? assign?] the directions to the car's GPS screen so the driver can see them too. You also want to keep your original destination and add this detour to the journey. Is there a way to do that from what you can see here? Show me how you would accomplish this.

Scenario two
Ahhh - you have your coffee and feel much better now. But the trip still has quite a way to go until you get to your destination. You and your friend think some music might be a nice distraction. You have a great new band you want to share by streaming music from your phone to the car.

Task two
Imagine that you want to choose a playlist or song to play in the car. [team - modify this text if needed to match the prototype].Talk me through how you would use the RoadWarrior [or is it Ride Share?] app to add this song to the car's playlist and play this through the car's audio system.

Results for mid-fi prototype testing

This initial round of usability testing proved the application concept as a value-added automotive feature. In particular, the concept of sharing control between car owner and guest was well-received by testers.

Both "owner" and "guest" usability testing gave our test participants the positive impression that this application would be used and enjoyed in a real-world context. The testers gave favorable

comments toward the overall shared control functionality as well as the ability to add destinations along an existing route in GPS.

The test result validated our assumption that the concept of the shared control would benefit both owner and guest in terms of safety, entertainment, and flexible control. The two usability testers completed the tasks successfully for both “Owner” and “Guest”, respectively. However, the testing results identified usability issues in various areas; proper feedback, distinctive iconography, the use of text label and description, and clear menu structure.

The test results also indicate some clear design and functionality areas to improve to make the application more intuitive and clear to users.

The design team has examined the current prototype based on the pain points and findings from the testing. For faster access to control settings, control features will be available with other Settings options at the same level for better discoverability. To remove any ambiguity of iconography, clear icon metaphor will be considered and text labels will be added. To provide the proper context of the required action, a descriptive text will be added to guide users in certain areas. When an action is made, visual or audio feedback will be prompted in the car.

The Pitch

With the update to our mid-fidelity prototype, the team moved to pitch Road Warrior to potential automakers. With several competing auto manufacturers interested in the Road Warrior prototype, one partner won the bid to include our product in their automobiles.



Style Guide

In building a style guide for our new partners at Mercedes Benz, the design team reviewed existing brand guidelines, as well as automotive screen interface designs to develop a high-end, luxury design that Mercedes Benz owners are expecting.

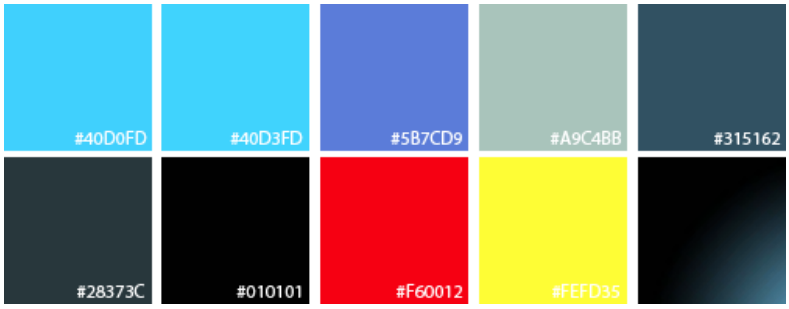
In effort to instill the Mercedes Benz brand, the name “Road Warrior” was removed and an entirely new, luxury approach was taken with the application. In renaming the product, the two versions for the application were re-named “Pilot” and “Co-Pilot”

BRAND VISION
Heightened quality and elevated satisfaction through effective and efficient design. Providing high grade solutions to enhance daily experiences.

TONE
- Simple and to the point
- Visually intuitive
- Clear communication standard

VISUALS & IMAGERY
- Cutting edge visuals
- Iconography that represents intuitive affordances

COLOR PALETTE



FONT
- Corporate S
- Corporate A BQ
- Sleek and innovative design

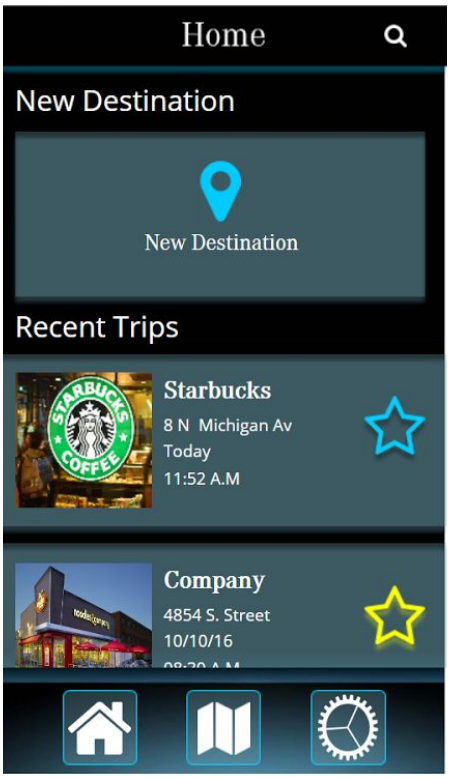
SPACING & LAYOUT
- Consistent spacing and alignment

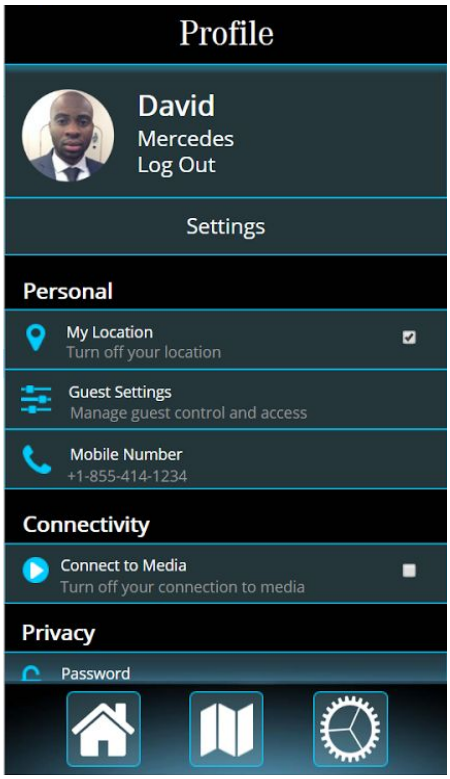
High Fidelity Prototype

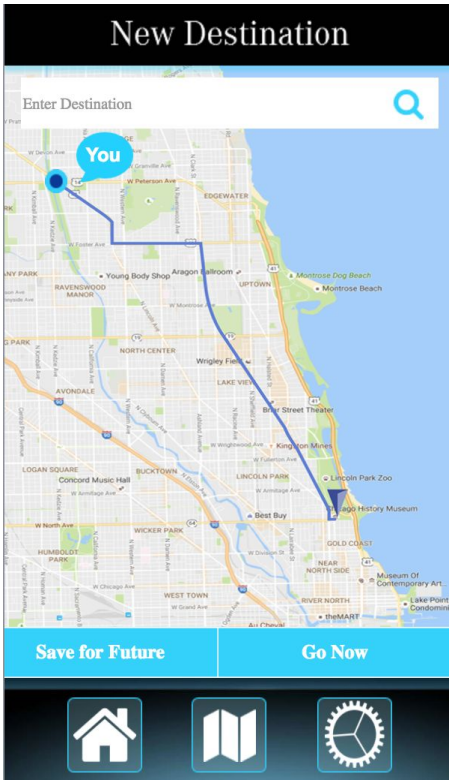
Based on the test results from the mid-fidelity testing, the team updated the application design to a simplified feature set, with the priority updates for navigation/destination and guest-access functionality for the application.

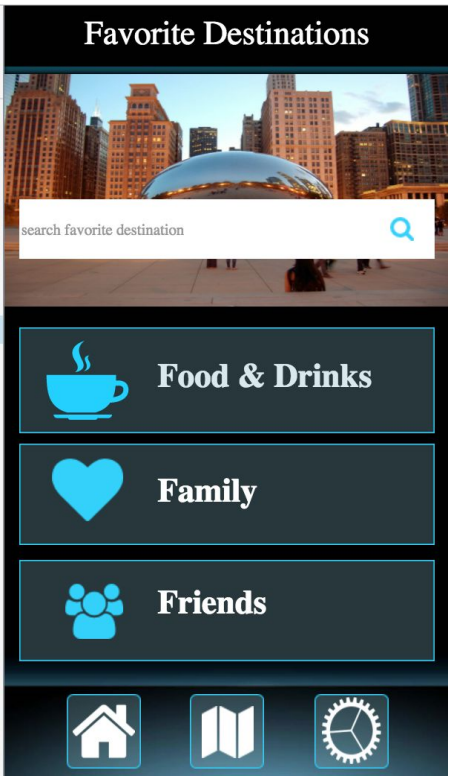
MERCEDES PILOT (OWNER APP)

For the high fidelity owner side prototype, the design team removed some of the added benefit features planned shown the mid-fi prototype, including insurance data, climate controls, door locks), and slimmed down the final product to the highest priority features for the application - the destination/navigation functionality, media player, and guest management settings, as well as streamlining the final product and applying Mercedes Benz brand styles.
Link to owner side prototype first version: http://kmxq53.axshare.com/
Link to owner side prototype final version: http://eoq4ck.axshare.com





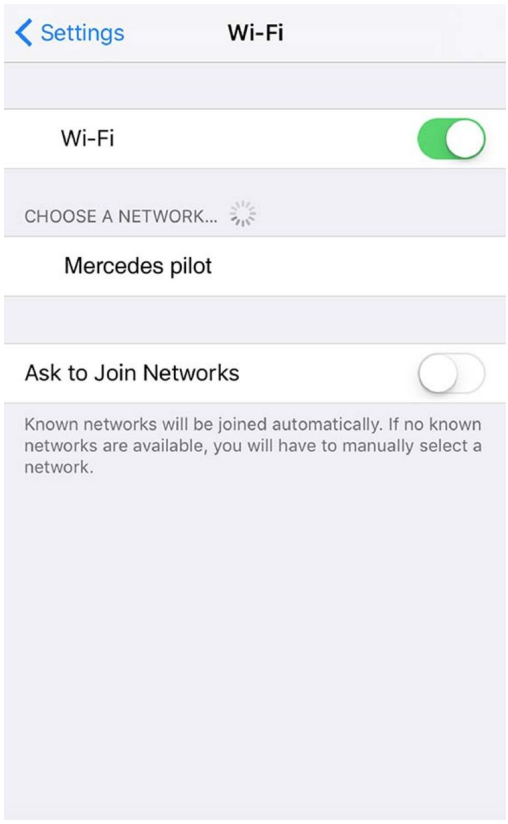


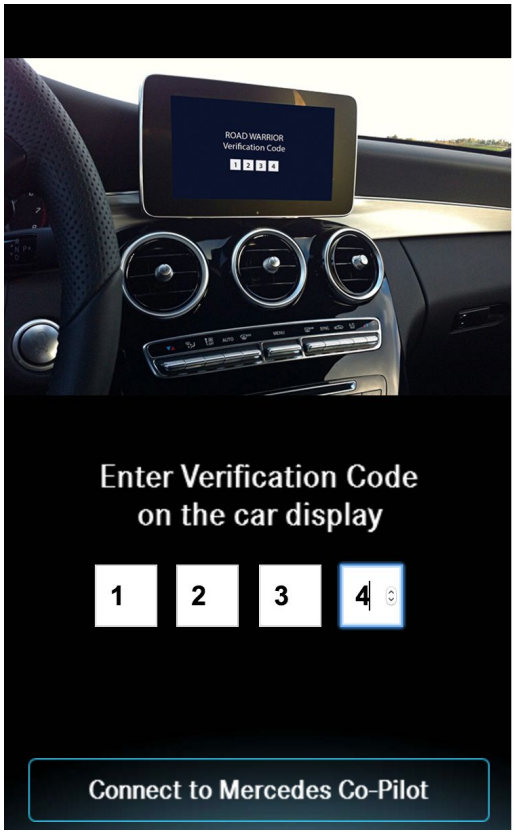


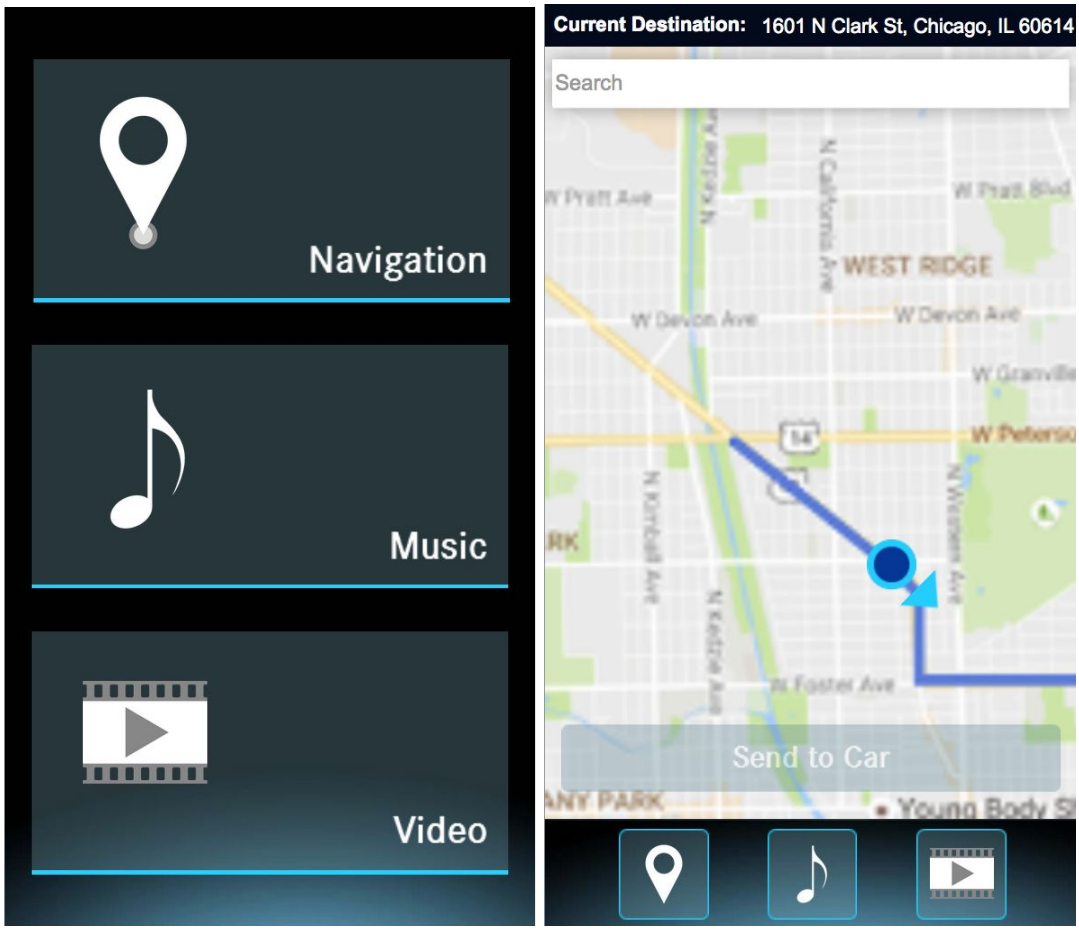
MERCEDES CO-PILOT (GUEST APP)

In looking at the guest side high fidelity prototype, a similar effort to streamline the application took place - focusing on providing the most clear user experience to a passenger in the Mercedes Benz. Again, the approach focused on ease of guest access by prototyping the Wifi-connection process, the navigation assistance process, and the media access.

Link to guest side prototype: http://8blw4k.axshare.com


Settings
Wi-Fi
Wi-Fi
CHOOSE A NETWORK...
Mercedes pilot
Ask to Join Networks
Known networks will be joined automatically. If no known networks are available, you will have to manually select a network.


ROAD WARRIOR
Verification Code
1 2 3 4
Enter Verification Code
on the car display
1
2
3
4
Connect to Mercedes Co-Pilot



Test Protocol for High Fidelity Prototype

The test protocol for phase two testing was similar to the initial, mid-fidelity prototype tests, with a stronger focus on the navigation and guest-access functionality of the high fidelity prototypes.

Updates to the test protocol for the high fidelity prototype included giving the user more context of the setting. For the owner, we clarified they were either in their home setting up the app for a trip, or in their car en route. For the guests, we gave them clearer context of sitting in the passenger seat, and provided applicable in-car screens for reference.

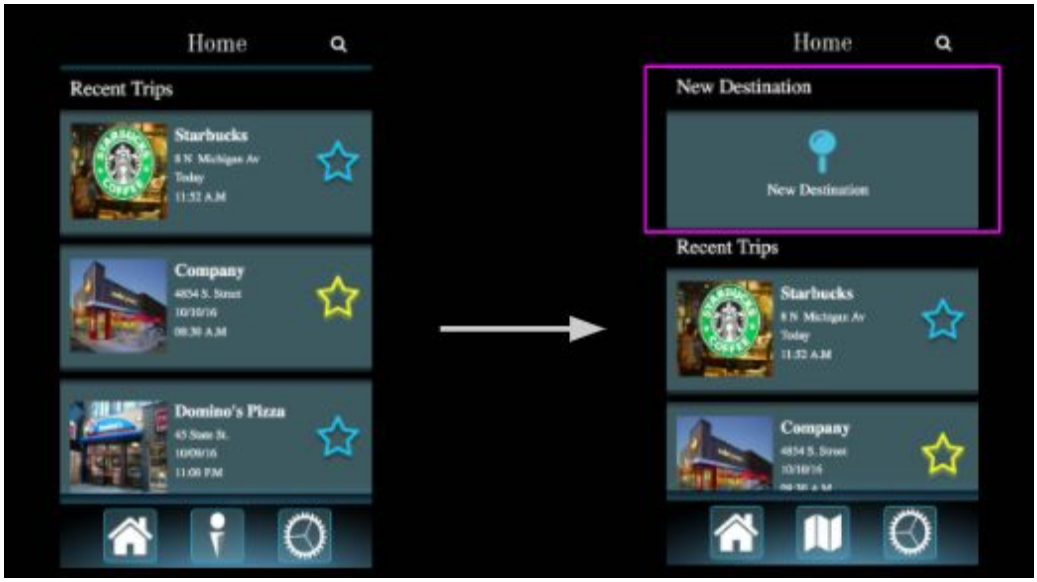
Additionally, some questions were asked that aimed to finalize the product design and appearance; the test also asked users about how the app looked and felt to them, and if they would recommend it to a friend.

High Fidelity Test Results and updates

The results of the high fidelity testing helped to uncover a couple more areas for improvement in the owner and guest applications. Some small adjustments were made as a result of the overall findings.

The three main takeaways for the Pilot (Owner) application:

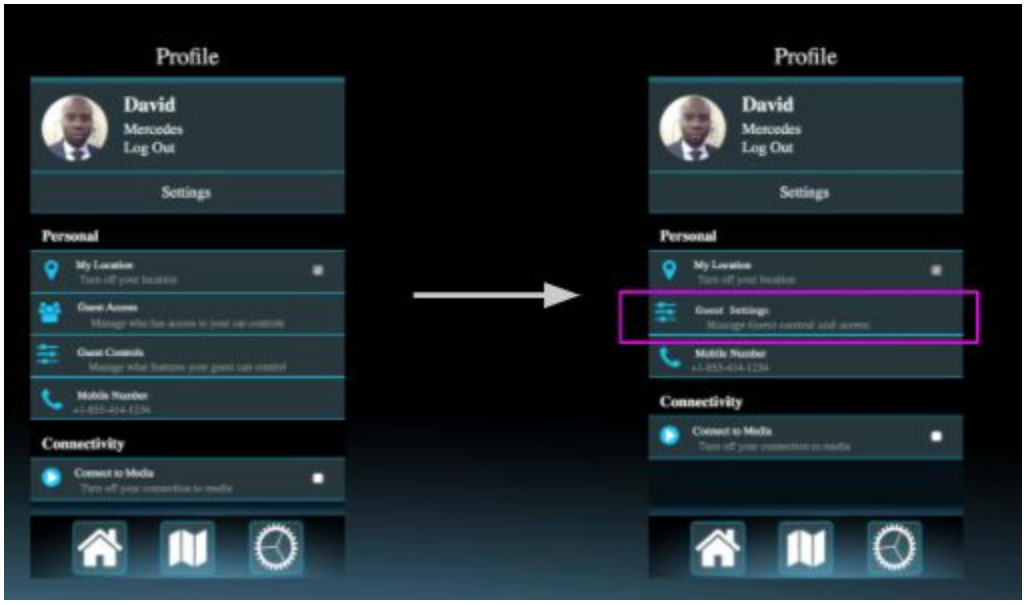
1. User should access to the map from the homescreen much faster. There was some difficulty for users accessing the navigation functionality, so we improved the app to make this feature higher level in the navigation homescreen.



2. Button label should be legible on any physical screen sizes. Users had trouble reading the text on the “save” and “go” buttons, so this was improved for better legibility.



3. Guest access and control structure can be combined for a better usability. Some of the guest settings were challenging for users to find, so the settings section was combined easier access.

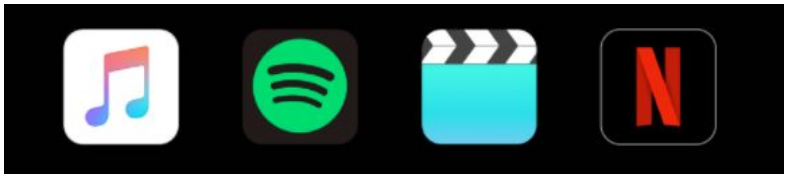


The three main takeaways for the Co-Pilot (Guest) application:

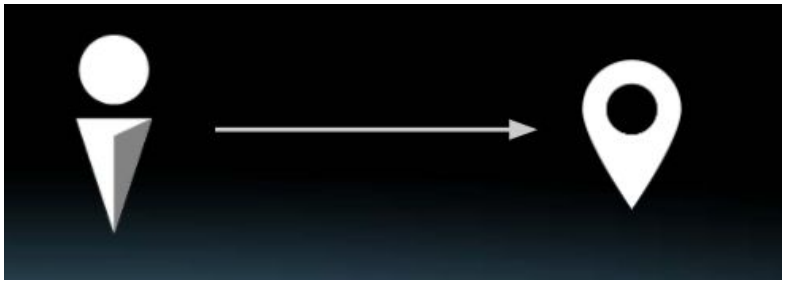
1. Wifi and code access were clear and smooth for a first time user. This was a positive validation for the application design.



2. Users are more comfortable with their preferred apps for streaming music or video. Rather than telling users “this application is not available” when an app was not installed on their device, we updated the application to display the apps available on the guest user’s smart phone.



3. Navigation icon metaphors can be reconsidered to be more clear. The original navigation icon looked to some users like an information icon. We updated the icon to a more universally accepted navigation design.



Conclusion

In designing an automotive application to be functional for car owners and their guests, our application proved successful through multiple rounds of usability testing. By ideating through building a design charette, sketching out concepts, building a mid fidelity prototype, and testing the prototype, we were able to design for and successfully sell the application to luxury automotive manufacturers. The new Mercedes Benz Pilot and Co-Pilot applications should continue to be tested and updated iteratively for continuous usability improvements.

Appendix

A. Mid Fi Test Results

Guest User Test:
Participant:
Martin, 29, Accountant
Has previously participated in a usability study.
Guest Task 1 https://youtu.be/-T2OYBZzERI
Task One Debrief:

At first user was a bit confused when asking how they would normally find a location to add, stating google or yelp. Found it clear to use 'Navigation' button to add location.

Stated he found the app to be very clear and straight forward with searching and adding locations.
Would not change anything, did not find any areas that were unclear.

Guest Task 2 https://youtu.be/nflne4Q8A-0

Task Two Debrief:
Found the app to be mostly clear for streaming music. Assumed the music went to the car but was unsure of it is a shared database.
Was unsure if playlists are loading from other streaming apps, such as Pandora, Google Play, and felt that would be nice.
Overall Debrief:
Make it more clear with regards to music streaming. Pleased with navigation. Overall, very positive reaction towards the app, thought it was great. Loved the idea of shared controls and thought it would be very useful.

Owner User Test:
Participant:

Andie, 32, Pharmacist

Has not previously participated in a usability study.

Owner Test Task 1 https://youtu.be/1sU1INISA1M

Task One Debrief:

Initially went to Recent Trips to find a location to enter. Could not figure out how to enter Starbucks from Recent Trips. Found navigation button to enter in 'New Destination'. Tried to click on the pop-up locations on map before sending to car. She stated she was unsure if the information was sent to the car because she could not see any sort of confirmation of the location. Tried to click on the 'Car' icon multiple times.

She thought what was listed on the main screen seemed pretty straightforward with weather, doors, climate control, insurance, and media. She found it confusing entering a location and that was +
8585\\\not that clear to her.
She did not intuitively know to click on the nav icon in the bottom to get to the enter location screen. She also was not sure how to know if the information was received by the car.
Owner Test Task 2 https://youtu.be/6cFfFuS9NkU
Task Two Debrief:

She felt this was very straightforward and clear. She stated also because she had just seen this screen so she knew exactly where to go.

Owner Test Task 3 https://youtu.be/_vFN_wSKfYs

Task Three Debrief:
She found this task very confusing. Initially thought it was clear that you would uncheck the icons to remove access, but was very confused on if that was actually occurring. Repeatedly kept trying to 'Clear Guest Access'. She did not know how to select the specific friend to change controls for. She assumed 'Veronica' was who she was trying to change the settings for, but was unclear how to do so. She did not know how to select which user. Assumed she would just uncheck 'Sound' or 'Set Destination' for Veronica.

At first thought it was really clear, to just uncheck which options. But then found it confusing if she was changing settings for another friend, and just assumed it was for the friend already in control. Would like it more clear to be able to select which friend and then change settings but did not know how to do so.

Guest User Test:
Participant:
Yoonsoo Ha, 26, Fashion Designer
Has not previously participated in a usability study.
Guest Task 1

Task One Debrief:

The participant was able to find and navigate to destination without much confusion.

Guest Task 2

Task Two Debrief:
The participant was able to figure out how to play music from the app but there was a bit of confusion here as well, mostly due to the limitation of the prototype.

- The iTunes button did not seem clickable in the beginning. The user had to try clicking on it to figure it out.

Overall Debrief:
Overall, the participants thought it was pretty straightforward and usable. The intermediate screen to music app could be revised to make it easier to understand what the user should do.

Owner User Test:
Participant:
Byunggaun Lee, 33, S/W Engineer

Has not previously participated in a usability study.

Owner Test Task 1
Task One Debrief:

The participant found the navigation with a bit of effort.

- There was a bit of confusion with the iconography in the bottom navigation. The user had to guess which would be for navigation because the car icon also seemed like it could be for navigation.
- There was confusion regarding whether the destination had been sent properly because the screen returned to the previous screen with “Go Now” and “Save for Future” options after clicking “OK” in “Send to Car” screen.

Owner Test Task 2
Task Two Debrief:

The participant went to “Navigation” icon to look for recent destinations. The participant was used to seeing recent destinations through search history in Google maps and so he assumed that would be the place to go for recent navigations. The home screen has “navigation” buttons as well the the bottom bar and so the menus may need to be unified into one place.
Owner Test Task 3 https://youtu.be/_vFN_wSKfYs

Task Three Debrief:
The participant found it confusing to find where the controls were.

- The bottom navigation iconography wasn't clear which one goes to settings.
- The participant expected the controls to be within settings and so he overlooked the Controls settings at first. After probing the participant a bit more, he said the "Controls" screen looked like the screen for the task, but he had to go to Settings first and compare so make the conclusion which was the correct screen.

Overall Debrief:
There was confusion regarding the iconography of the bottom navigation and the settings layout.

- It wasn't clear which icons did what and so the user had to do guessing.
    - Car icon vs. Location icon
    - Profile icon for settings?
- The participant found it difficult to figure out where things were within settings. The user expected the controls to be in the settings tab as well instead of being shown as the very first item when choosing settings.

B. High Fidelity Test protocol

SCENARIO ONE
You're in your house waiting for your friend who will travel in your new luxury car with a fancy new electronic system. Your car has a companion app that your friend can either download or use web application. A passenger can connect to the car Wi-Fi, and the car provide a token for approval. Then the passenger can control some of the car's functions such as Navigation, Music, and Video. Before your friend arrives, you want to set the initial navigation to Starbucks.

TASK ONE

1. Without clicking or tapping anything, tell me what you see on the screen. Can you describe anything that is catching your attention?
2. Now let's go ahead and enter the main page. What's going on - what kind of things could you potentially do here?
3. Using this app, talk me through how you would find the directions to the car's GPS/navigation system.

[after participant completes Task One:]
How was that for you overall?
Was there anything particularly challenging, frustrating, confusing?
Was there anything about the task that felt especially easy or enjoyable?
Anything we could make better or more clear?

TASK TWO

1. Let's say you want to return to Starbucks frequently. Show me how you would you save it to easily find later.

[after participant completes Task Two:]
How was that for you overall?
Was there anything particularly challenging, frustrating, confusing?
Was there anything about the task that felt especially easy or enjoyable?
Anything we could make better or more clear?

TASK THREE

1. Now I want you to imagine that your friend is on the way over. Before he/she arrives, you want to limit the car features that the guest can control Using the app, talk me through how you would accomplish this.
2. You also want to delete some of the guests who previously accessed and used the companion app. How would you remove the guest access from the app?

[after participant completes Task Three:]
How was that for you overall?
Was there anything particularly challenging, frustrating, confusing?
Was there anything about the task that felt especially easy or enjoyable?
Anything we could make better or more clear?

FINAL/DEBRIEF
Now think back overall about your experience with this app. Is there anything you would change, anything that was particularly good? Bad?
How would you describe this app to a friend? Would you recommend this app to a friend?
If you had a magic wand and anything was possible technologically, are there any changes you would make?
Do you have any other comments or questions for me?

Thank you for participating! Your feedback will be extremely helpful in making this app the best it can be.

Guest

SCENARIO ONE
Imagine that you are going on a trip with a friend in your friend's new luxury car. It has a fancy new electronic system, and the screen in the car is on. In this system, you're able to have some control over things by connecting to the car's app on your smartphone. The connection requires you to use the car's in-car Wifi. You're sitting on the passenger side in the car. You had kind of an early start and didn't have time to have your morning coffee so you're a little groggy. You want to stop for coffee but are unfamiliar with the area. Your friend is too busy driving to search

for a nearby starbucks so ask you to connect to his car, which you do. So let's take a look at the app:

[moderator - hand participant the laptop with home screen loaded. Explain that it's a limitation of the prototype and tell them to pretend they're using it via their smartphone]
TASK ONE
[Note to moderators: Throughout the test, probe as necessary without answering questions/telling them how it works/what to do. For example, if the participant asks "Is this the right button?" don't answer directly, but say something like "What would you expect to happen if you clicked that?"]

1. Let's start by going ahead and enter through the car's in-car wifi network and connect to the Pilot app.
2. (Once on the verification code step show the "incar1.jpg on a separate screen.)
3. (Once on homescreen) Now, without clicking or tapping anything, tell me what you see on the screen. Can you describe anything that is catching your attention?
4. What's going on - what kind of things could you potentially do here?
5. You want to find a Starbucks. Talk me through how you would go about finding the address of a nearby Starbucks. [moderator have participant click as appropriate]
6. Send the directions to the car's GPS screen so the driver can see them too. You also want to keep your original destination and add this detour to the journey. Is there a way to do that from what you can see here? Show me how you would accomplish this. (display incar2.jpg when the user selects "send to car")

[after participant completes Task One:]
How was that for you overall?
Was there anything particularly challenging,frustrating, confusing?
Was there anything about the task that felt especially easy or enjoyable?
Anything we could make better or more clear?

SCENARIO TWO
Ahhh - you have your coffee and feel much better now. But the trip still has quite a way to go until you get to your destination. You and your friend think some music might be a nice distraction. You have a great new band you want to share by streaming music from your phone to the car.

[moderator - reset prototype to appropriate starting screen]
TASK TWO

1. Imagine that you want to choose a playlist or song to play in the car. [.Talk me through how you would use the app to add this song to the car's playlist and play this through the car's audio system.

[after participant completes Task Two:]
How was that for you overall?
Was there anything particularly challenging, frustrating, confusing?
Was there anything about the task that felt especially easy or enjoyable?
Anything we could make better or more clear?
FINAL/DEBRIEF
Now think back overall about your experience with this app. Is there anything you would change, anything that was particularly good? Bad?
How would you describe this app to a friend? Would you recommend this app to a friend?
If you had a magic wand and anything was possible technologically, are there any changes you would make?
Do you have any other comments or questions for me?

Thank you for participating! Your feedback will be extremely helpful in making this app the best it can be.

C. Hi-Fi Prototype Results

Test - Owner

I used Mac touchpad without a mouse: Kept accidentally brining up Dictionary (It was my bad decision to run the test without a mouse). Tester was not familiar with Mac Touchpad.

Task 1

- Recent trips list had Starbucks already, and the tester kept trying the list.
- Navigation icon looks like information.
- “Enter Address” sounds limited to address only. “Destination” might be a broader term for both point of interest and address.
- Prototype brought up the result screen already even before the tester select a specific Starbucks location amongst many locations.

Task 2

- “Save for Future” button didn’t work to mark for frequent trip.
- “Go now” button shouldn’t be displayed after the confirmation screen. Tester was confused.
- Favorite options have “OK” button. Apple doesn’t usually have the button.

Task 3

- Tester tried “Guest access” for the task of Guest control.
- Tester wasn’t sure if David on Profile is the owner or someone else.
- Tester tried “Setting” button thinking there is something more if clicked.

- Tester wasn't sure how to handle clicking or swiping "Delete" button.
- Anne's personal opinion: X and Delete button are not clearly distinguishable due to the similarity. Maybe X is not needed as the tester pointed.

Overall tester said it is ok and looks premium.
However, some navigation was not intuitive enough for the tester such as Guest access vs. Guest control.

Test - Guest

To be tested.

Task 1

- Tester wasn't sure where to get the verification code, so I showed the image as if she looks at the car screen with verification code on.
- Tester didn't think the orange dots are Starbucks locations.
- Tester was unsure which end point is the current location.
- There is no car confirmation screen in the prototype, so I showed an image to give the tester context.
- Tester thought adding a stop was pretty easy and seamless.

Task 2

- This task was clear and easy to the tester.

Tester thought the app was pretty easy to use.
Tester mentioned that she wanted to have favorite function, but she changed her mind after explaining that the guest side is for a temporary use for guest.
Tester was curious about Video menu features.

Owner app:

Task 1
With task one the user had trouble with the favorites section on homepage.
Navigation icon - wasn't clear on which icon was the navigation icon.
Had trouble reading the blue 'go now' button -- moved closer to the screen to see the text.
User quote: "It took a lot of clicks to get to the map vs. using Google maps where it's a 2 step process"

Task 2
User clicked the star - save under food and drinks - click OK
User quote: “process is pretty easy.”

Task 3
Part 1 was clear.
Part 2 - not sure at first, then once she looked around the settings area, she found guest access area to delete users from access.

Owner app, key insights:

1. Favorites on the homescreen could potentially click directly to the map for navigation. This was expected by the user on task 1. We should make the map much faster to get to.
2. Make sure button text is legible at small size or increase font size
3. Settings/guest access sections, as well as the ‘favorites’ seem clear

Guest app:

Task 1
In the haste of the test, the direction in the script about add or replace was not voiced, but the user did not notice the “add” or “replace” functionality and simply clicked “add”. After the test, I explained the functionality of that section, and the user suggested “add to route” or “reroute final destination” to the language to make it more clear.

Comments:

- “That’s cool”
- “That was pretty easy, made sense. Didn’t have any problems with it”
- “The code made sense. I have bluetooth in my car but if someone wants to connect it’s not that simple”

Question:
Would they have to have something like “Do not use your navigation system while driving”. Would the app need a disclaimer?

Task 2
Notes:
User preferred Spotify to Apple music but the app wasn’t available and they became confused/frustrated. Language on the error for the music app was grammatically incorrect “cannot this app”
Quote: “Why can’t you use spotify?”
Otherwise straightforward.

Guest app, key insights:

1. Wifi and code access was clear and smooth for a first time user
2. Allow access to multiple music apps, or have the app scan the user's phone to see which apps might be available for entertainment. If an app is not available, update language to "this application is not available from your device" or a clear reason why.

Debrief:

- I wouldn't change much.
- Describe to a friend: This app makes it easy for passengers in the car to control the in-car entertainment and navigation from their phone and connect to a car
- I would recommend it.
- I would make spotify work.
- No other comments or questions.