Hi-Fi Prototype

Automotive Telematics Application

HCI 430

Jaemyoung An
Sara De La Cruz
Evelyn Flores
Shivali Mody
Wooho Park
Anne Suh
Kevin Zimmerman

Contents

1. The Opportunity
2. Sketch and Moodboard
3. Mid Fidelity Prototype
4. Test Plan and Report
5. The Pitch
6. Hi Fi Prototype
7. Style and Brand Guide

The Opportunity

Automobile telematic capabilities are growing rapidly in conjunction with:

- Advanced GPS
- In-car Wi-Fi
- More powerful smartphones
- High-speed cellular networks
- Broadband Internet



The Opportunity

“Road Warrior”

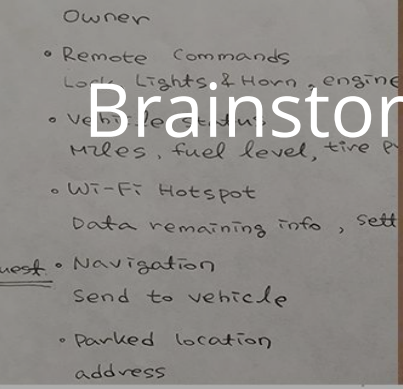
Convenience
- Navigation
- Ease of use

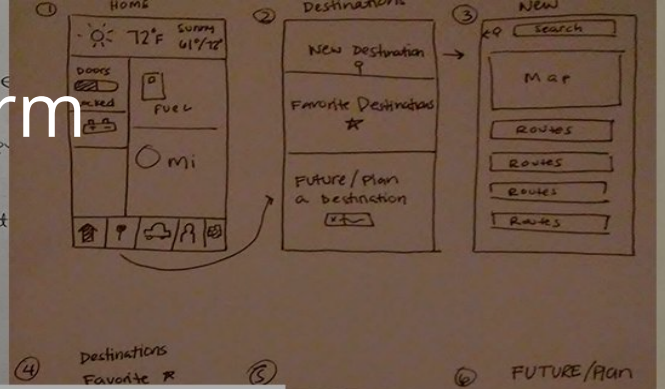
Safety
- Hands-free
- Driver undistracted

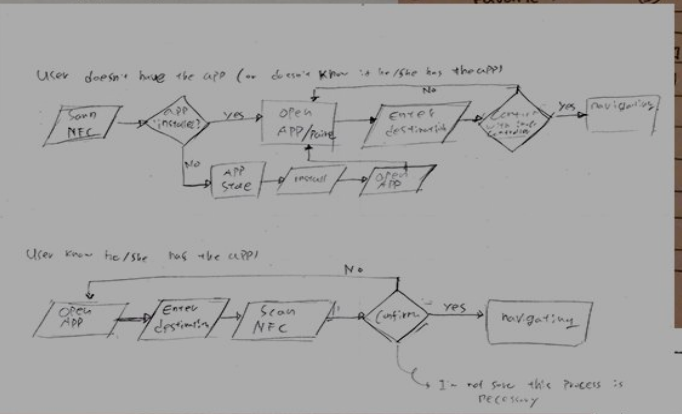
Fun
- Shared control
- Streaming entertainment
- Enjoy the ride together

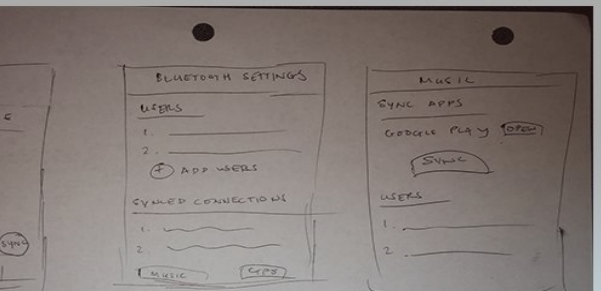


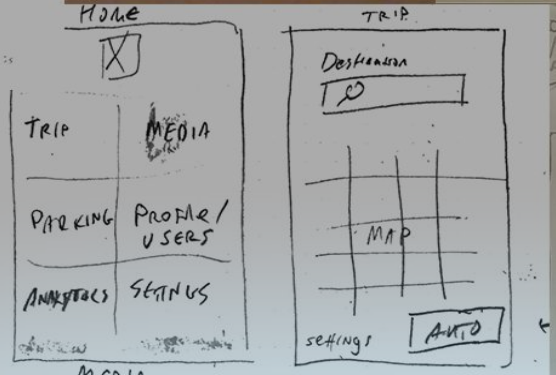
Brainstorm

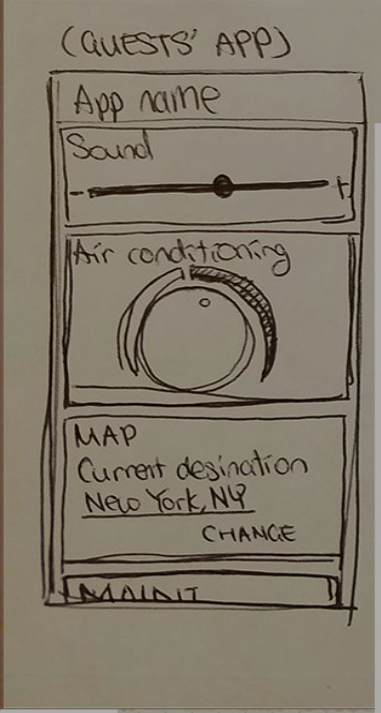

Owner
Remote Commands
Wi-Fi Hotspot
Data remaining info
Navigation
Send to vehicle
Parked location
address

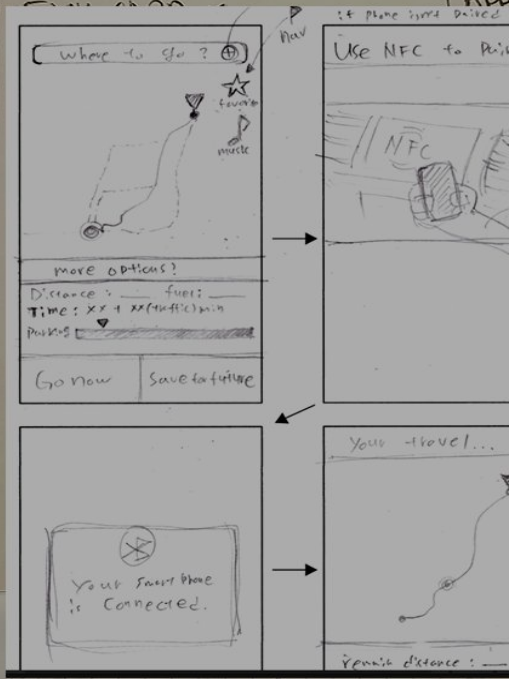

Home
72°F
Fuel
0 mi
Destination
New Destination
Favorite Destinations
Future / Plan a destination
New
Search
Map
Routes
Routes
Routes
Routes
Destinations
Favorite
Dining/Food
FUTURE/Plan
Plan New Trip/destination
Future Destinations

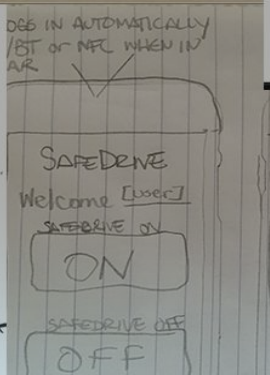

User doesn't have the APP (we don't know if he/she has the APP)
Scan NFC
APP installed?
yes
Open APP/Store
Enter destination
Confirm destination
yes
navigating
No
APP Store
installed
Open APP
User know he/she has the APP!
No
Open APP
Enter destination
Scan NFC
Confirm
yes
navigating
If not sure this process is necessary

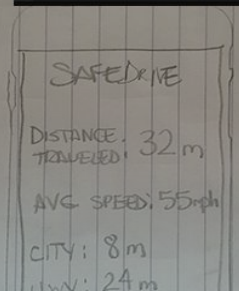

BLUETOOTH SETTINGS
USERS
APP USERS
SYNCED CONNECTIONS
MUSIC
SYNC APPS
GOOGLE PLAY
OPEN
SYNC
USERS
MUSIC
GPS

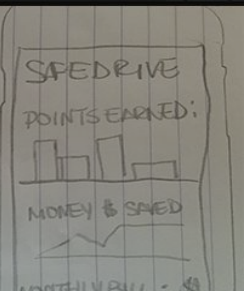

HOME
TRIP
MEDIA
PARKING
PROFILE / USERS
ANALYTICS
SETTINGS
TRIP
Destination
MAP
setting
AUTO


(GUESTS' APP)
App name
Sound
Air conditioning
MAP
Current desination
New York, NY
CHANGE

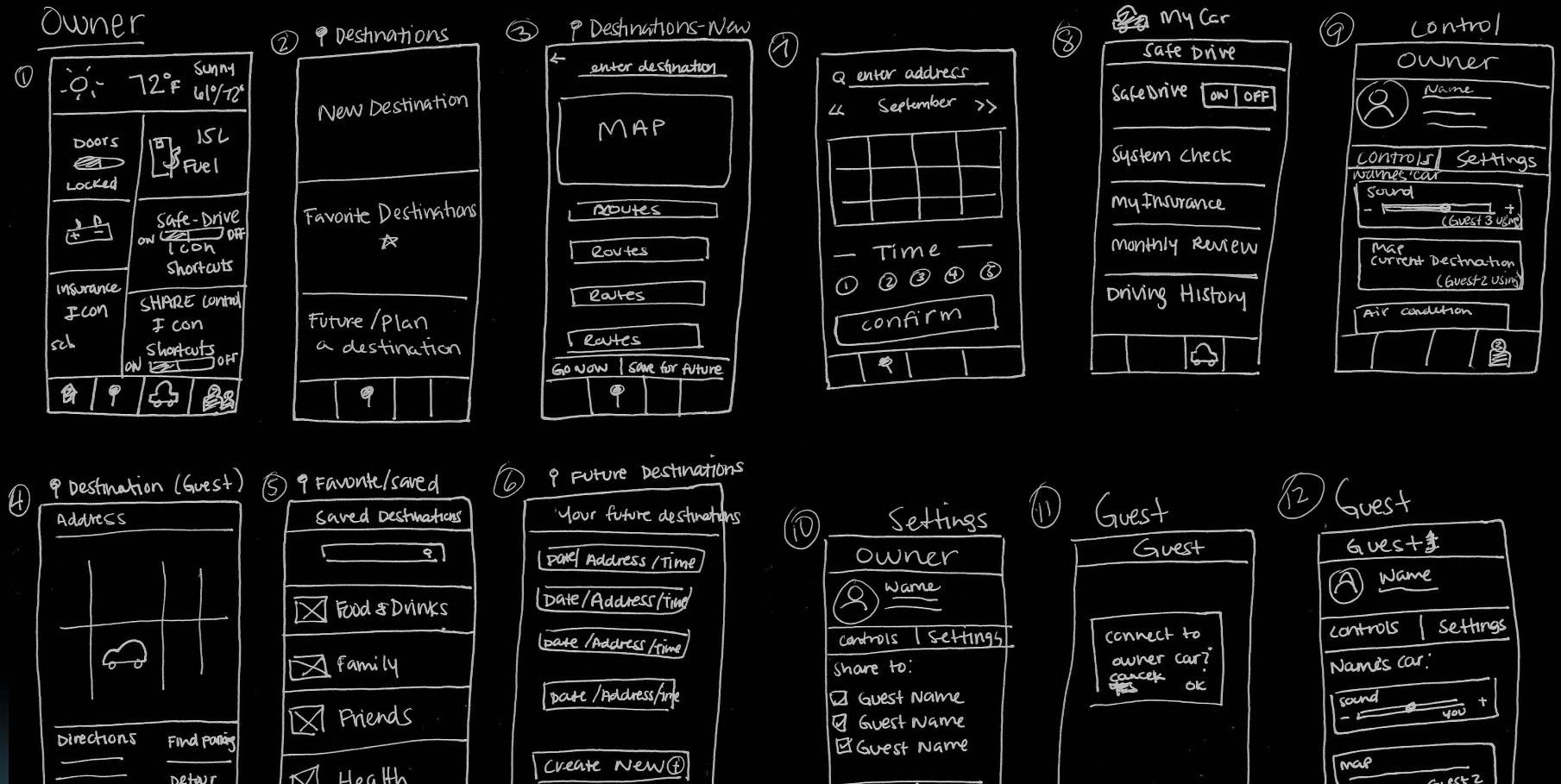

Where to go ?
Nav
Use NFC to
NFC
more options?
Distance : fuel:
Time : xx + xx(traffic) min
Parking
Go now
Save for future
Your smart phone is Connected.
Your travel...
Remain distance :


SAFEDRIVE
Welcome [user]
SAFEDRIVE ON
ON
SAFEDRIVE OFF
OFF


SAFEDRIVE
DISTANCE TRAVELED: 32 m
AVG SPEED: 55 mph
CITY: 8 m


SAFEDRIVE
POINTS EARNED:
MONEY $ SAVED

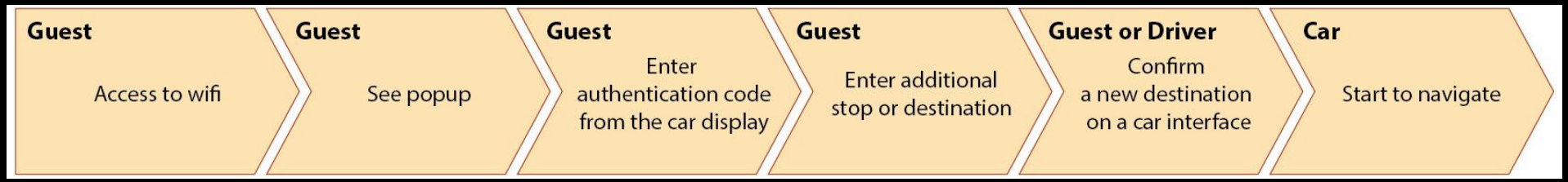
Sketches


Owner
1
72°F
Sunny
61°/72°
Doors
Locked
151
Fuel
Safe-Drive
ON
OFF
Icon
Shortcuts
Insurance
Icon
SHARE control
Icon
Shortcuts
ON
OFF
2
Destinations
New Destination
Favorite Destinations
Future / Plan a destination
3
Destinations-New
enter destination
MAP
Routes
Routes
Routes
Routes
Go now
Save for future
7
enter address
September
Time
1 2 3 4 5
confirm
8
My Car
Safe Drive
Safe Drive
ON
OFF
System Check
My Insurance
Monthly Review
Driving History
9
Control
Owner
Name
Controls
Settings
Name's car
Sound
(Guest 3 using)
Map
Current Destination
(Guest 2 using)
Air condition
4
Destination (Guest)
Address
Directions
Find Parking
5
Favorite/saved
Saved Destinations
Food & Drinks
Family
Friends
Health
6
Future Destinations
Your future destinations
Park/Address/Time
Date/Address/Time
Date/Address/Time
Date/Address/Time
Create New
10
Settings
Owner
Name
Controls
Settings
Share to:
Guest Name
Guest Name
Guest Name
11
Guest
Guest
connect to owner car?
cancel
ok
12
Guest
Guest
Name
controls
Settings
Name's car:
Sound
you
Map

Feature priority: guest access

Technology options for guest access to the in-car application.

- Near field communication chip (NFC)
- Stand-alone guest application
- In-car Wifi connection



Personas



David

Married, father of 2 kids. Takes frequent family trips. Moderately comfortable with technology. Lets kids use Road Warrior to stream movies during long rides.

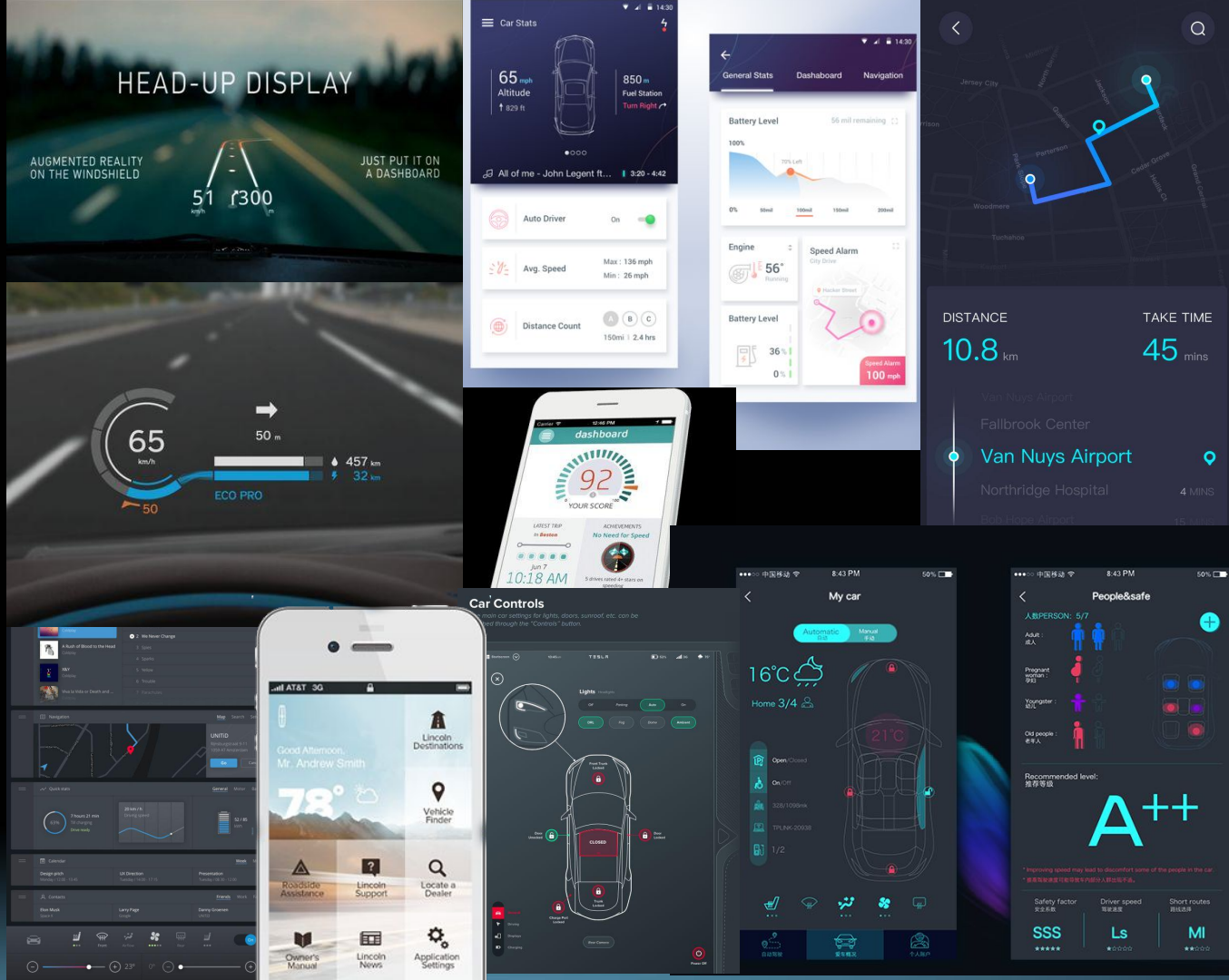


Kim

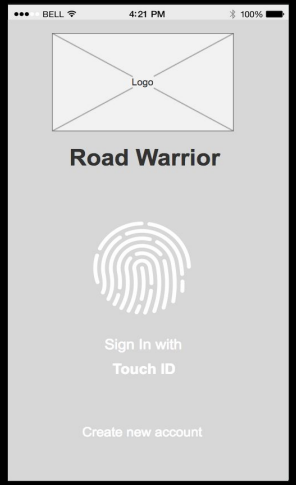
Single, graduate student. Carpools daily. Extremely comfortable with technology. Uses Road Warrior with friends to share podcasts and explore new restaurants.

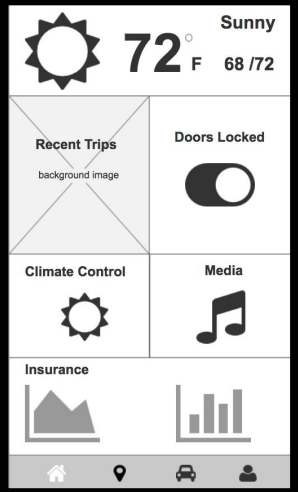
Moodboard

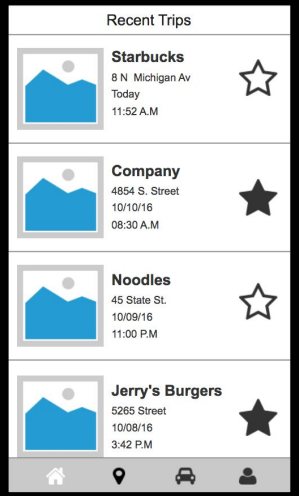
https://www.pinterest.com/hci430group2/automotive-ux/

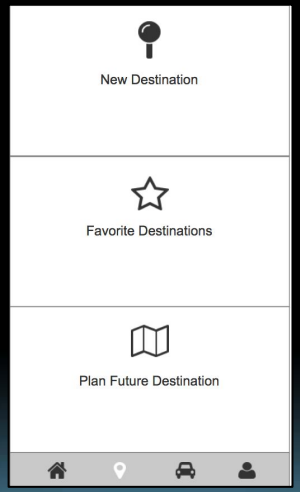


Mid-Fidelity Prototype - Owner

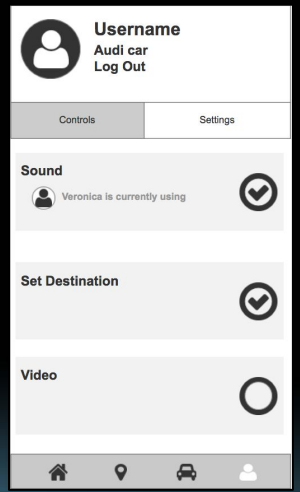






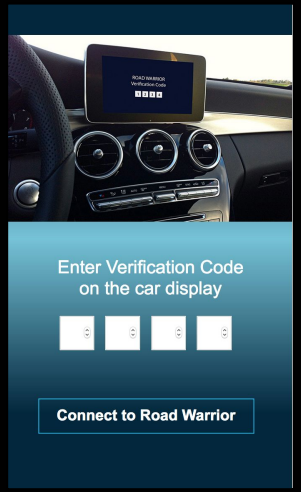


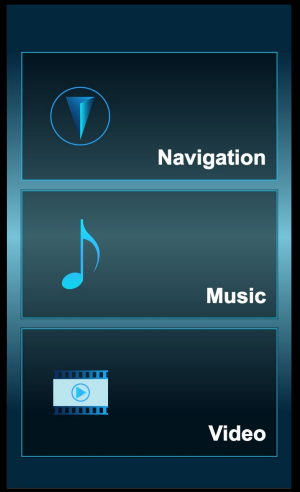


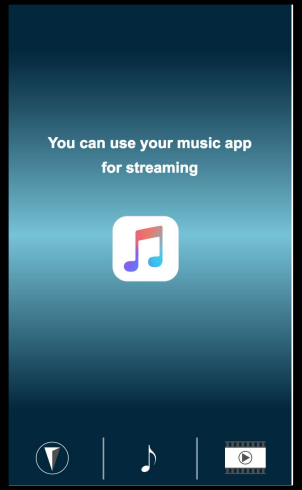


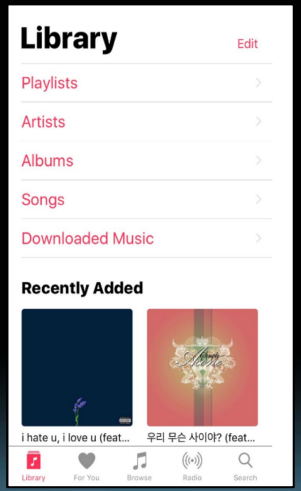
http://e57edc.axshare.com

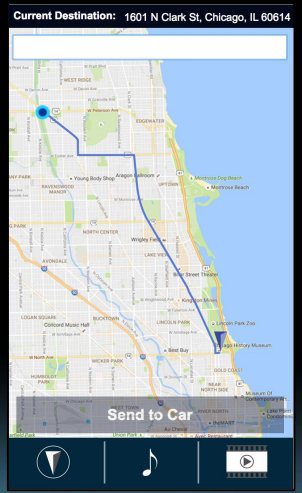
Mid-Fidelity Prototype - Guest

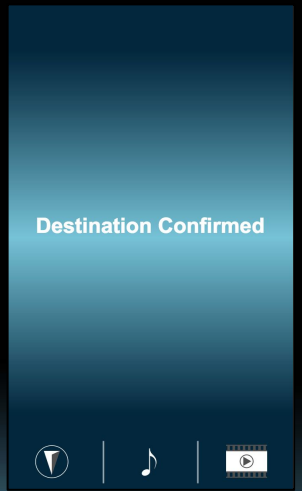












http://e57edc.axshare.com

Round 1 Test Plan

Owner application scenario

- Setting navigation
- Saving a destination
- Control guest accessibility

Guest application scenario

- Setting navigation
- Send destination to the car
- Set music playlist

Round 1 Test Report

Tasks were completed successfully for both “Owner” and “Guest”.

The testing results identified usability issues in various areas;

- Proper feedback - Visual or audio feedback needed
- Distinctive iconography
- The use of text label and description
- Clear menu structure - Better discoverability and faster access

The Pitch

To pitch our prototype application to potential automakers, the group developed the designs and prototypes for automotive manufacturer review.

With several competing auto manufacturers interested in the Road Warrior prototype, one partner won the bid to include our product in their automobiles.



Mercedes-Benz

The re-branding effort

To rebrand to Mercedes Benz, the team reviewed existing brand guidelines and automotive screen interface designs.

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”



Style and Brand Guide

BRAND VISION

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

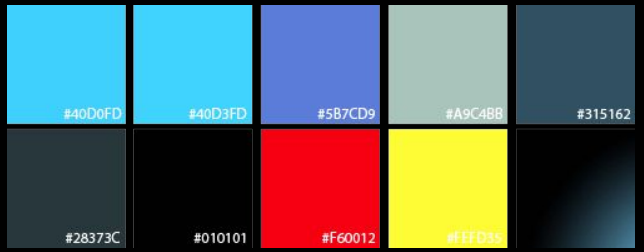
TONE

- 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

SPACING & LAYOUT

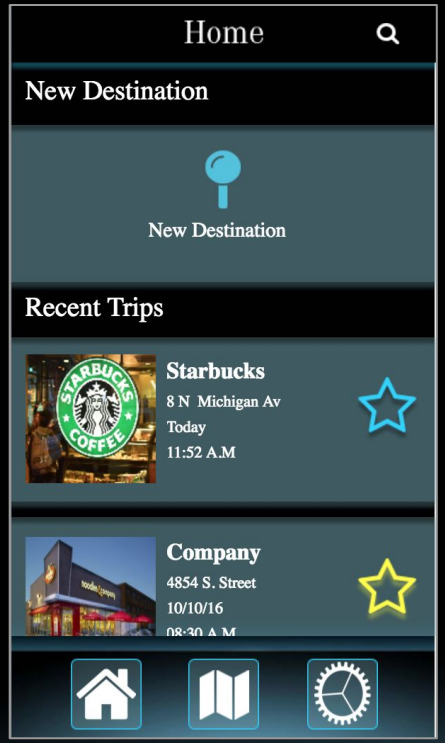
- Consistent spacing and alignment
- Sleek and innovative design

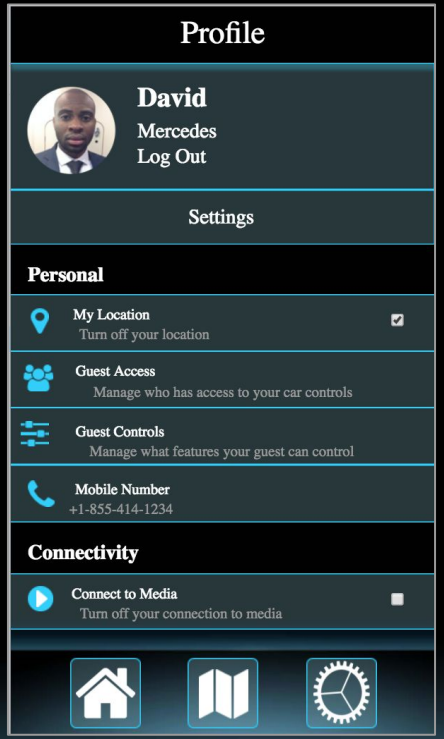
Hi-Fidelity Prototype - Pilot app

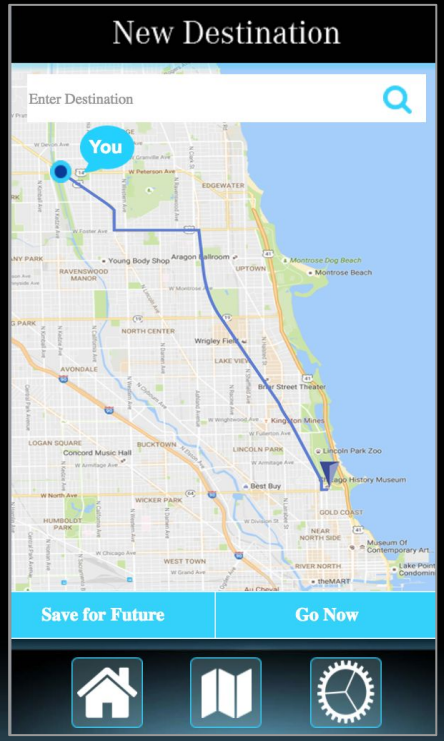
Slimmed down the final product to the highest priority features

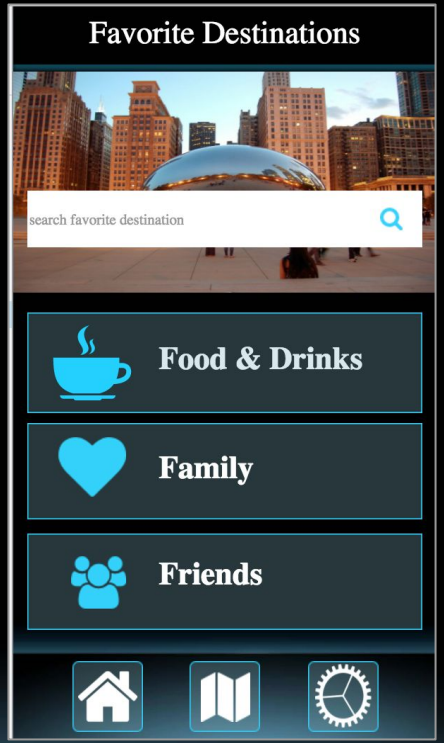
- the destination/navigation functionality
- the guest management settings
- streamlining the final product and applying Mercedes Benz brand styles.

Hi-Fidelity Prototype - Pilot app







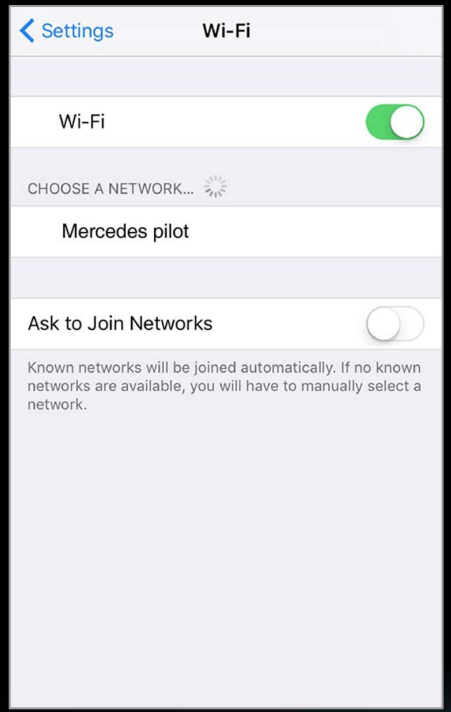


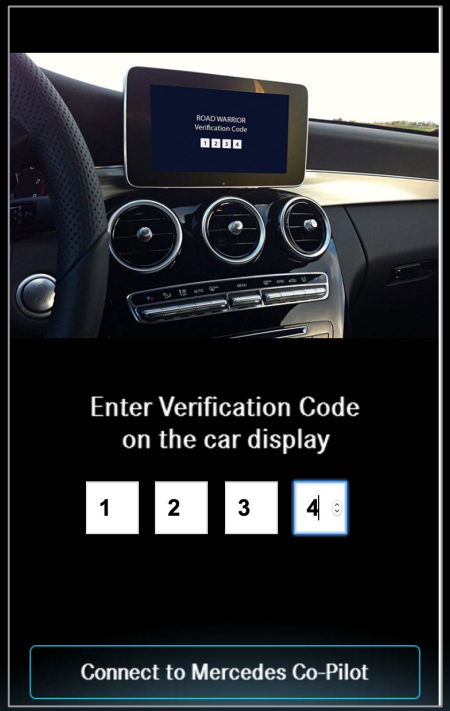
Hi-Fidelity Prototype: Co-pilot app

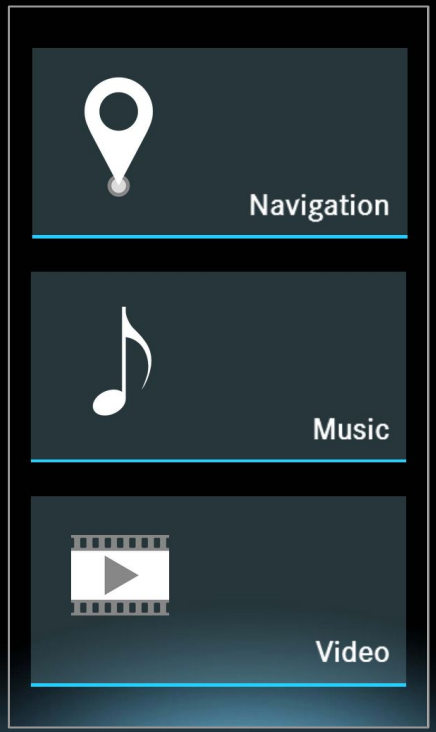
In looking at the guest side high fidelity prototype, a similar effort to streamline the application took place - focusing on providing the most clear user experience to a passenger in the Mercedes Benz.

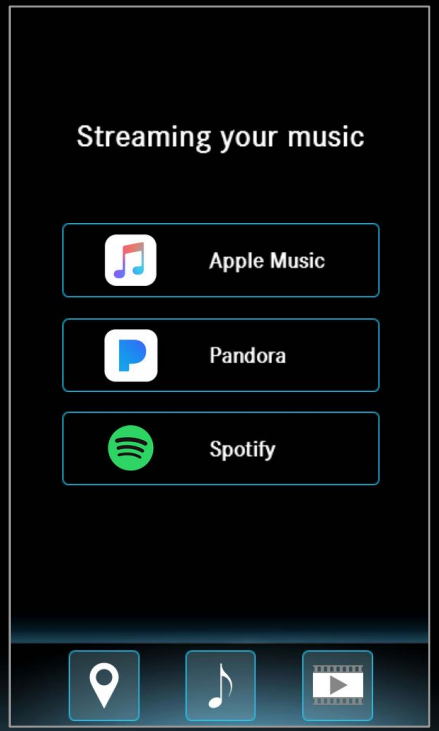
- ease of guest access by prototyping the wifi-connection process
- the navigation assistance process
- the media access for guests

Hi-Fidelity Prototype: Co-pilot app









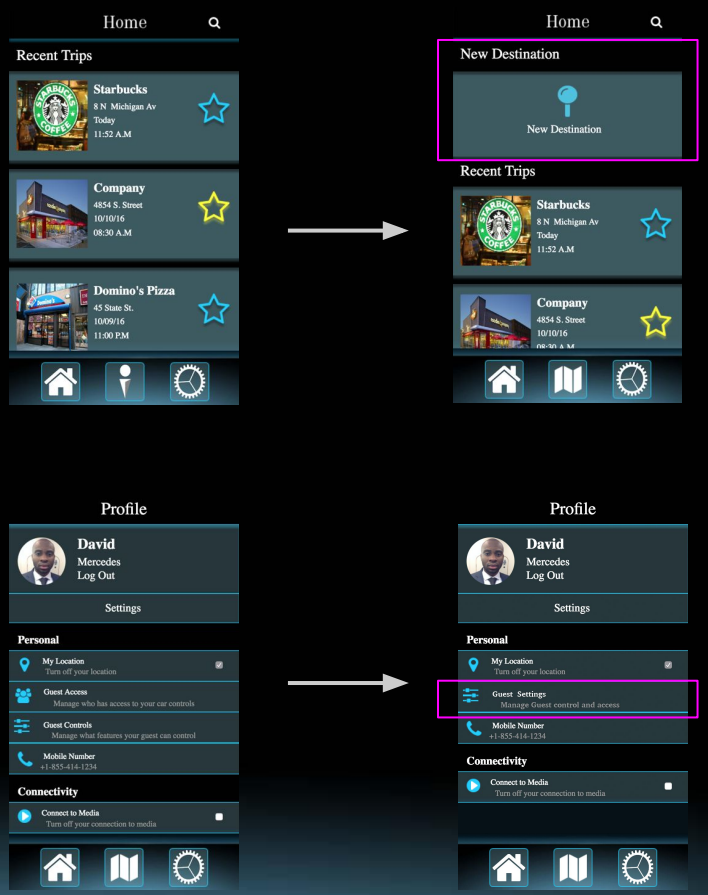
Round 2 Test Report

Owner app

1. User should access to the map from the homescreen much faster.

2. Button label should be legible on any physical screen sizes.

3. Guest access and control structure can be combined for a better usability.



Round 2 Test Report

Guest app

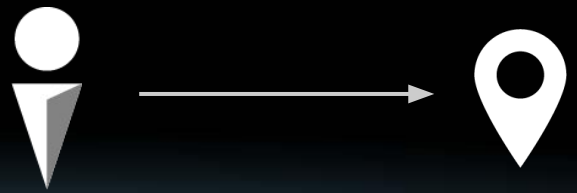
1. Wifi and code access were clear and smooth for a first time user.

2. Users are more comfortable to use their own preferred apps for streaming music or video.

3. Navigation icon metaphor can be reconsidered.







Thank you

