DASH

Jiarui Guo	usability testing, paper prototyping
Clarissa Song	paper prototyping, writing
Novin Changizi	writing, usability testing
Melissa Khuat	digital mockup, project manager

Problem

Distracting behaviors while driving:

Texting,
Calling,
Scenery,
Makeup,
Drinking,
Exhaustion...

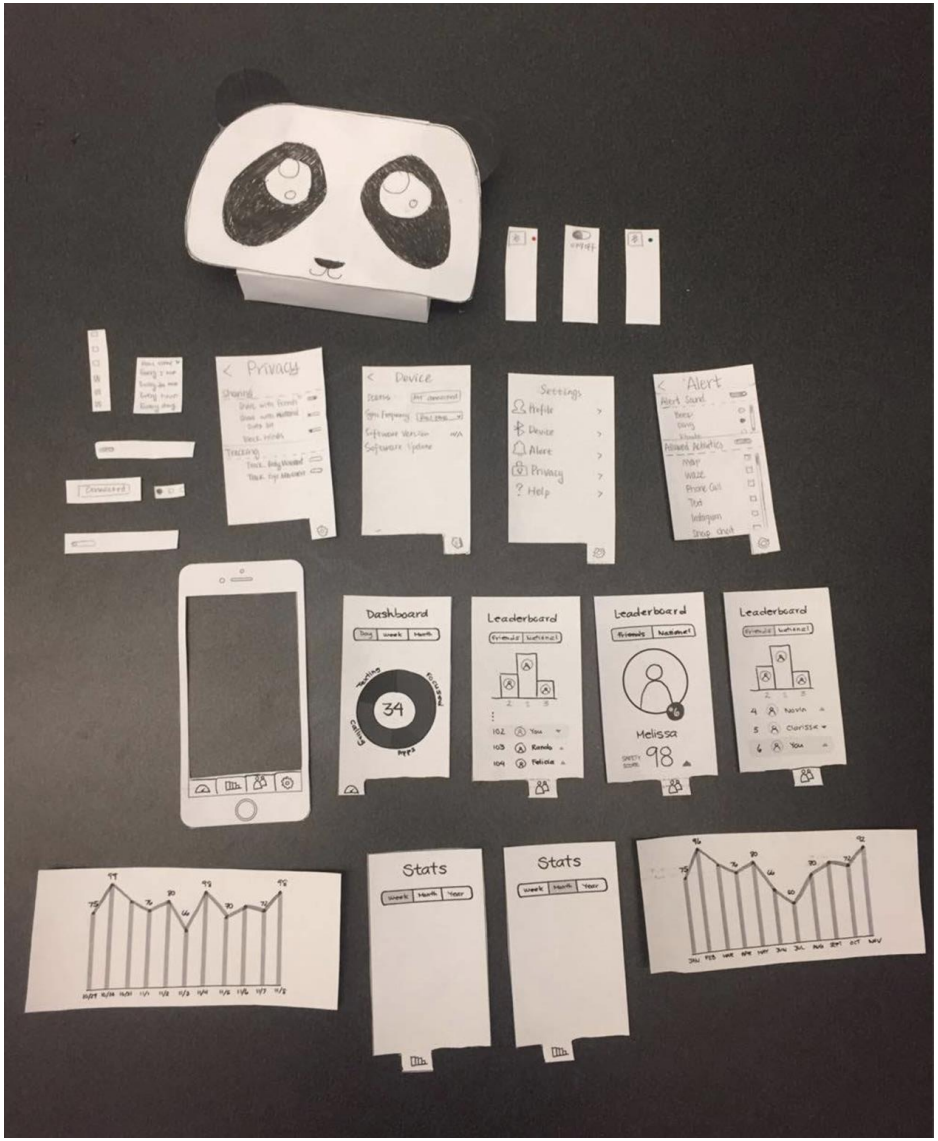
How bad can it be?

Each day in the United States, over ***1,161*** people are injured and over ***8*** people are killed in crashes that are reported to involve a distracted driver.

How many of you still engaged in distracting behaviors while driving after the previous presentation?

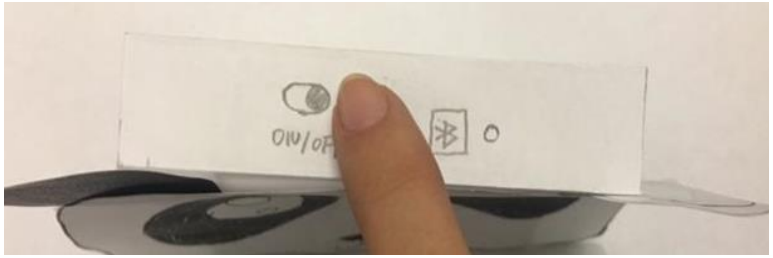
How can we encourage *and* reinforce safer driving habits?

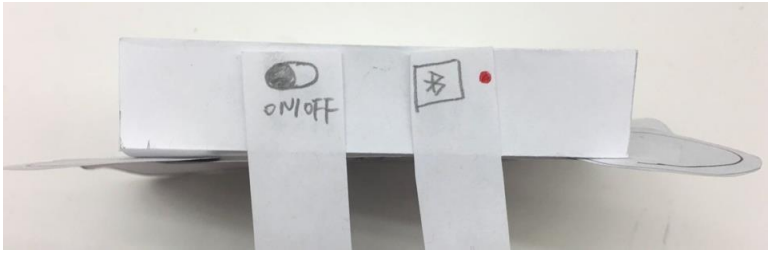
Initial Paper Prototype | OVERVIEW

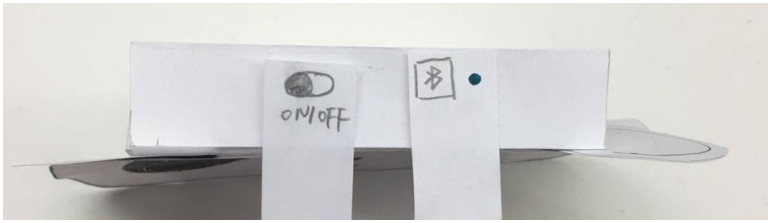


Initial Paper Prototype

TASK 1: PROCESSING & VISUALIZING DATA



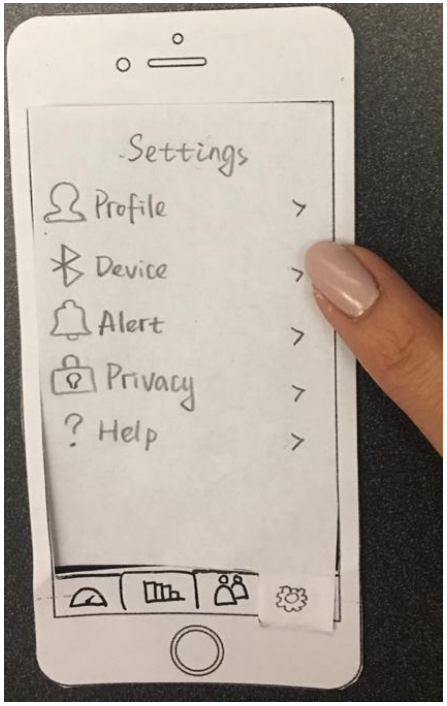




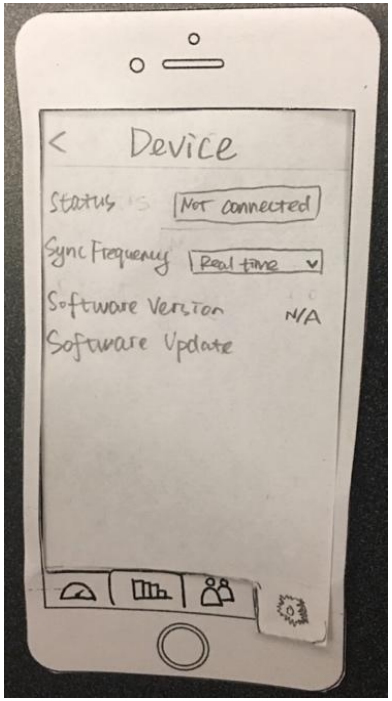
Turn on and connect device

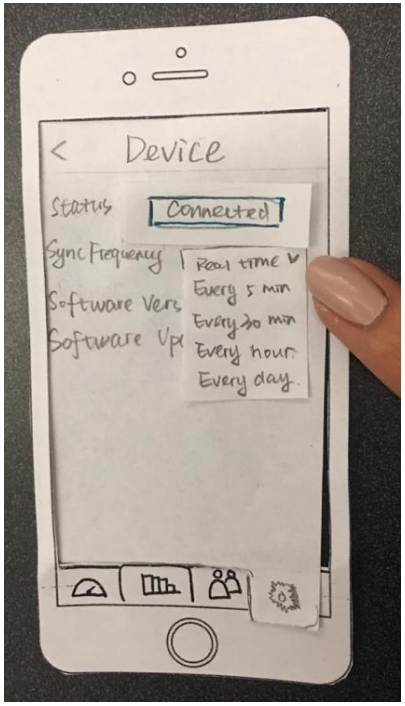
Initial Paper Prototype

TASK 1: PROCESSING & VISUALIZING DATA

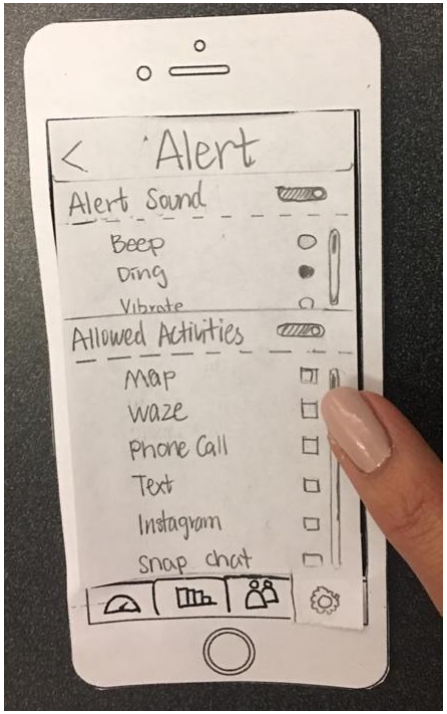


Settings





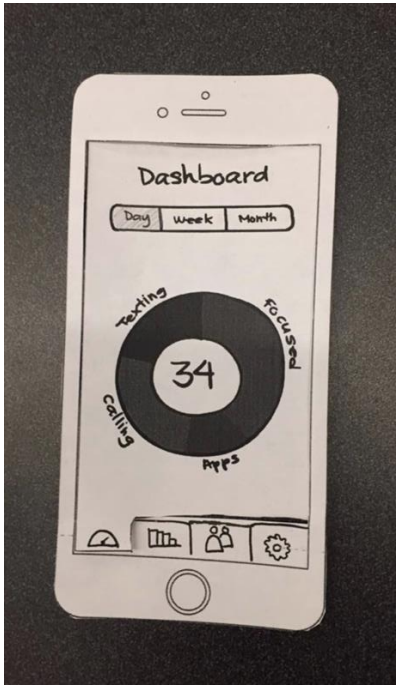
Device Settings



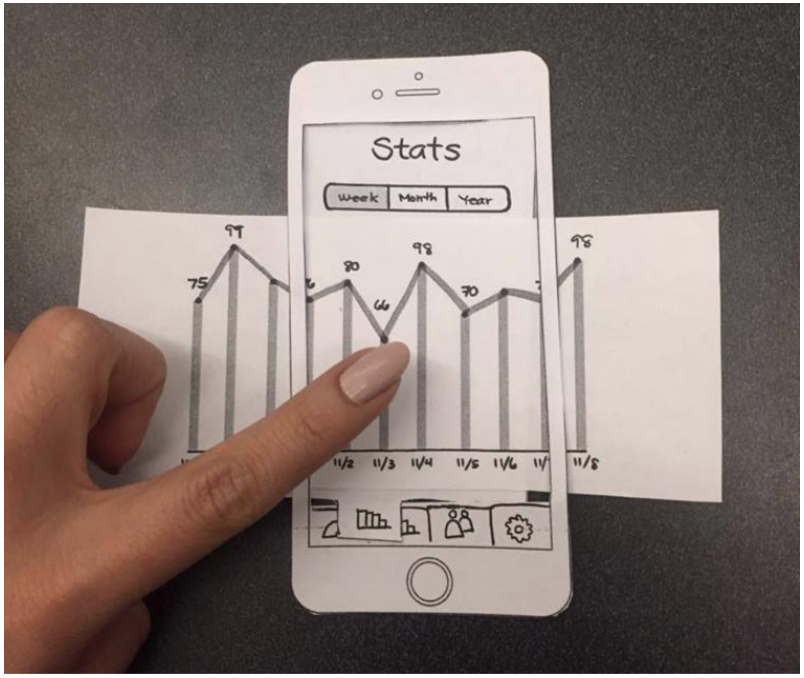
Alert Settings

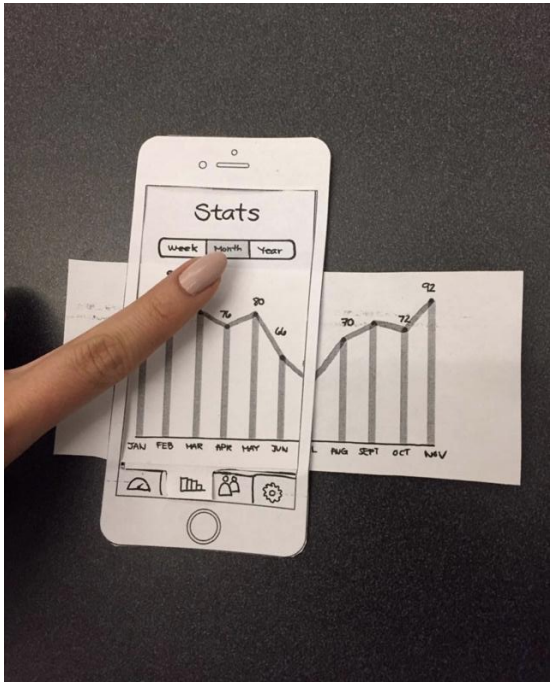
Initial Paper Prototype

TASK 1: PROCESSING & VISUALIZING DATA



Dashboard Summary

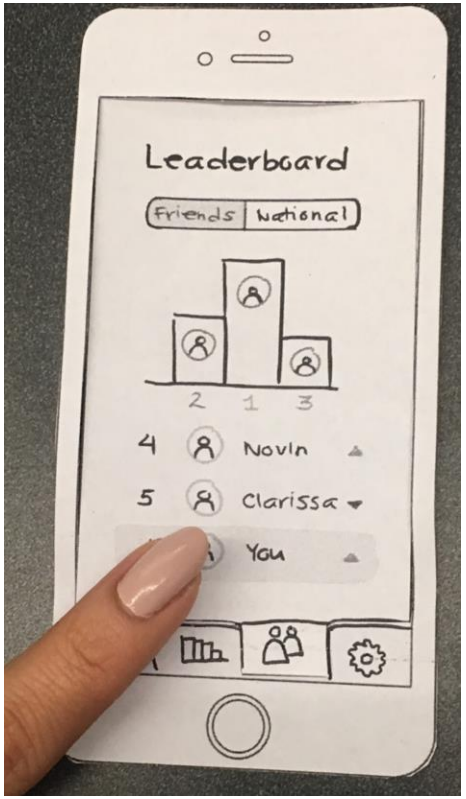




Stats view → Scrolling for more → Switch to month view

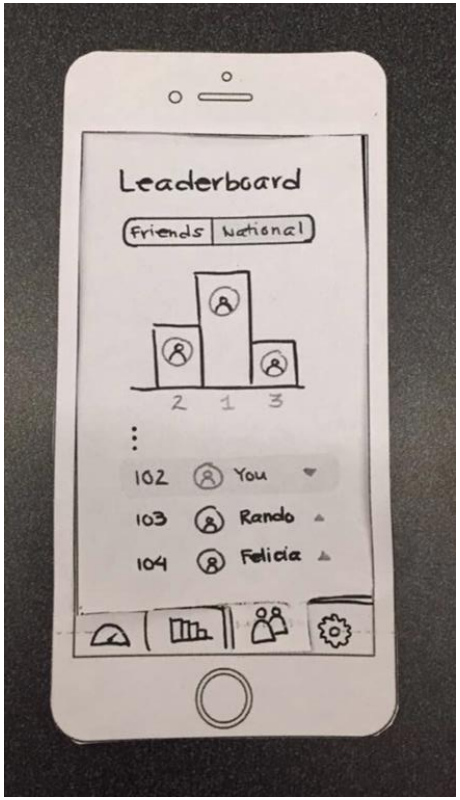
Initial Paper Prototype

TASK 2: Sharing & Comparing Driving Habits



Friend View of Leaderboard

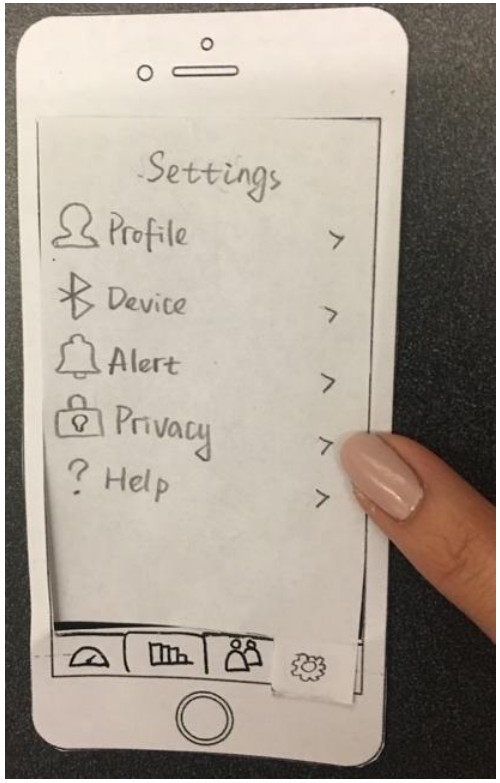
Individual Profile

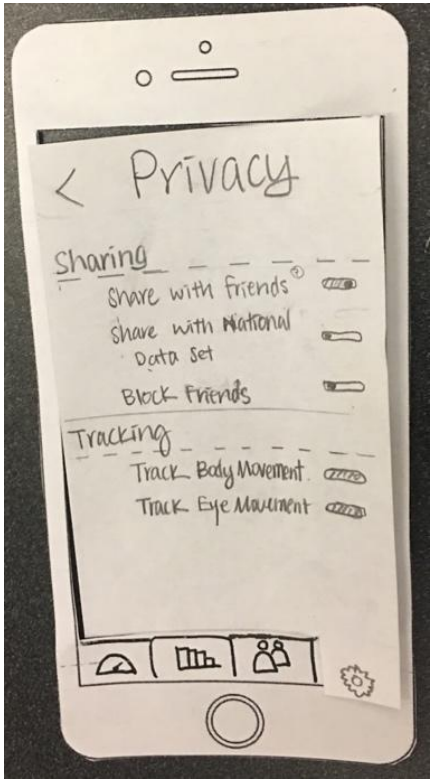


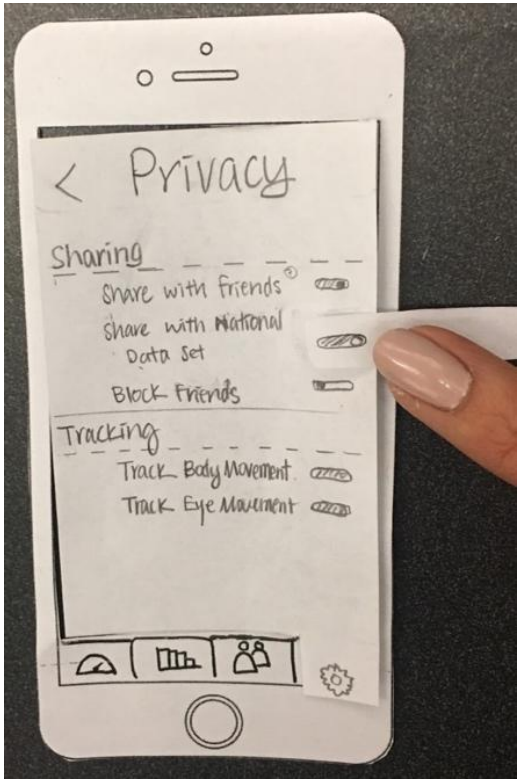
National View of Leaderboard

Initial Paper Prototype

TASK 2: Sharing & Comparing Driving Habits







Privacy Settings

Testing Process & Results

PARTICIPANTS & METHODS

Three participants

- Male and female
- First two males were inexperienced drivers
- Last was semi-experienced female driver (~5 years)

Two parts to the test:

- How user would use it for the first time: installation, pairing
- How user would use it after a while: stats, leaderboard

Testing Process & Results

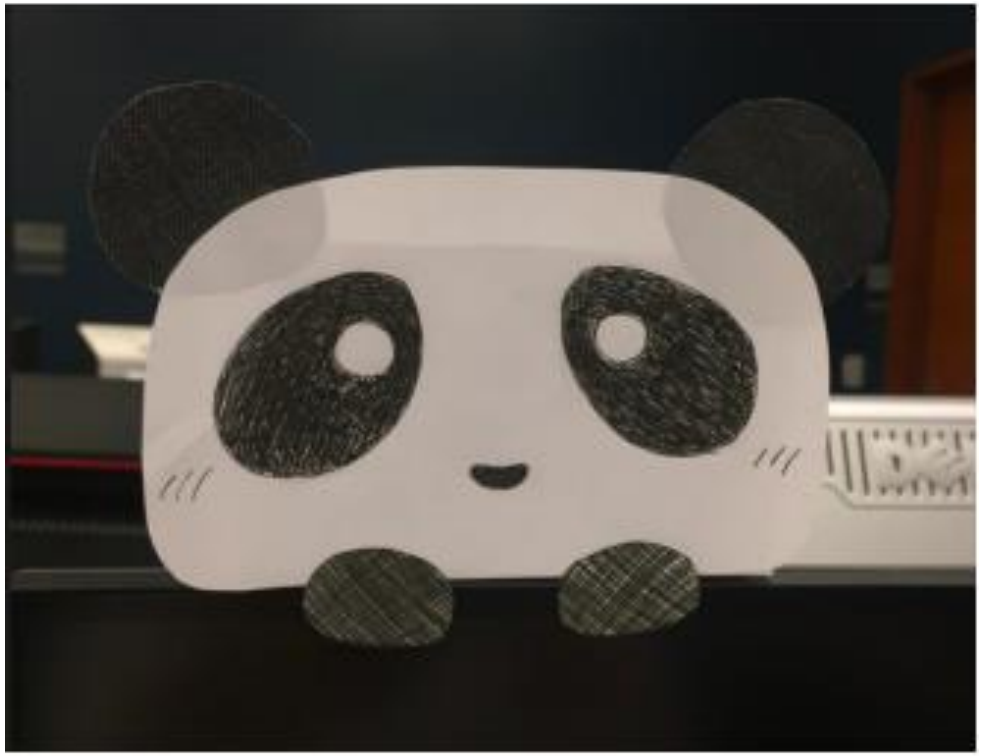
CRITICAL INCIDENTS

Issues addressed:

- No affordance for clipping panda
- Inconvenient button placement on panda
- No details on how to connect panda
- “Allowed activities” settings encouraged illegal activities
- No detail view for data on stats or dashboard
- Stats graphs did not afford clicking or scrolling
- No capability to add/remove friends

No Affordance for Clipping Panda

So we added clips to the bottom

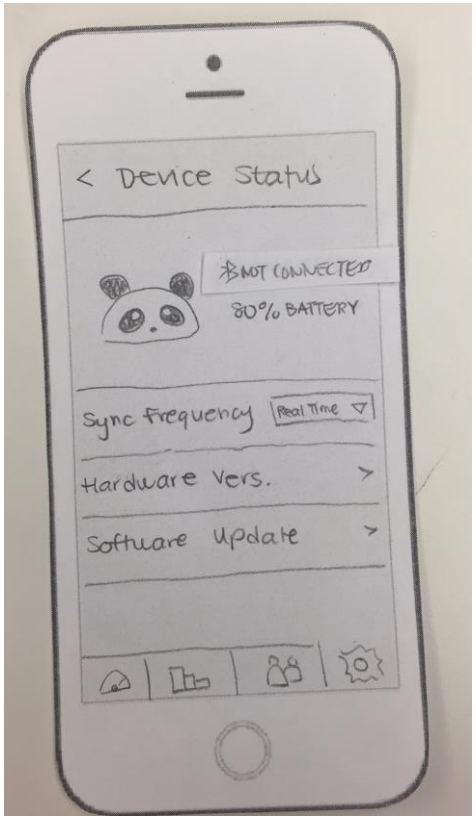


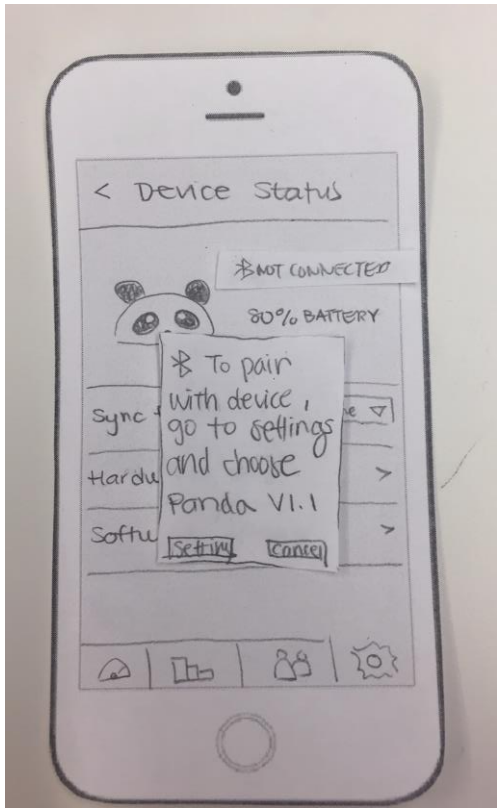
Inconvenient button placement on the panda

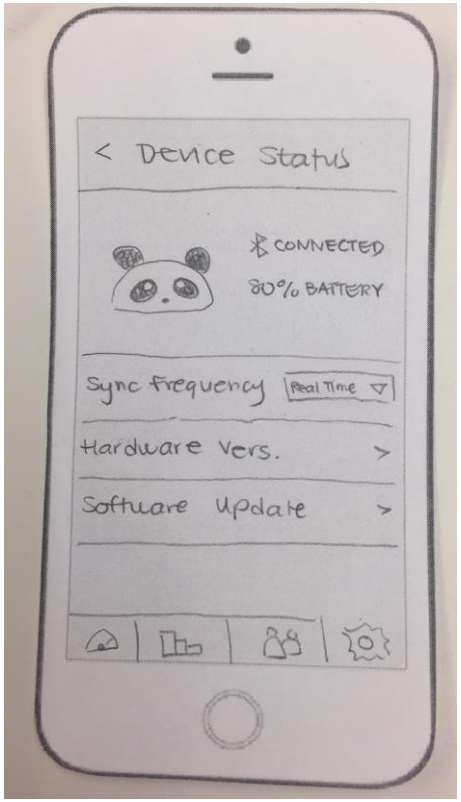
So we put the buttons on the left side

No details on how to connect panda

Se we added it to the settings

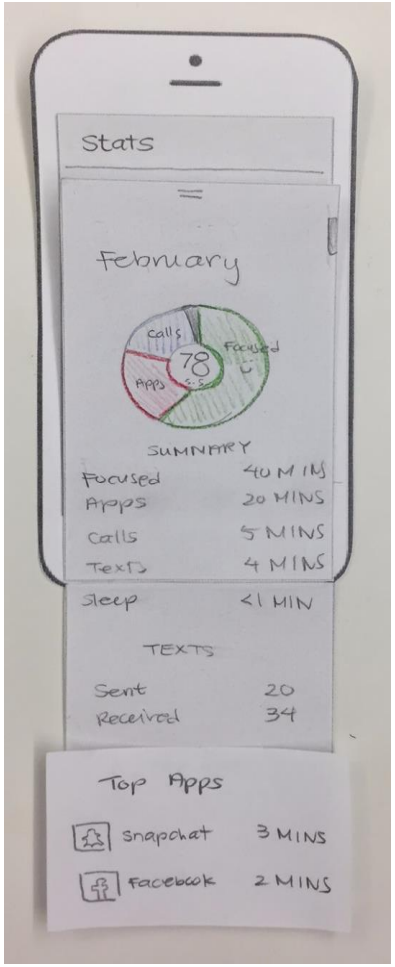






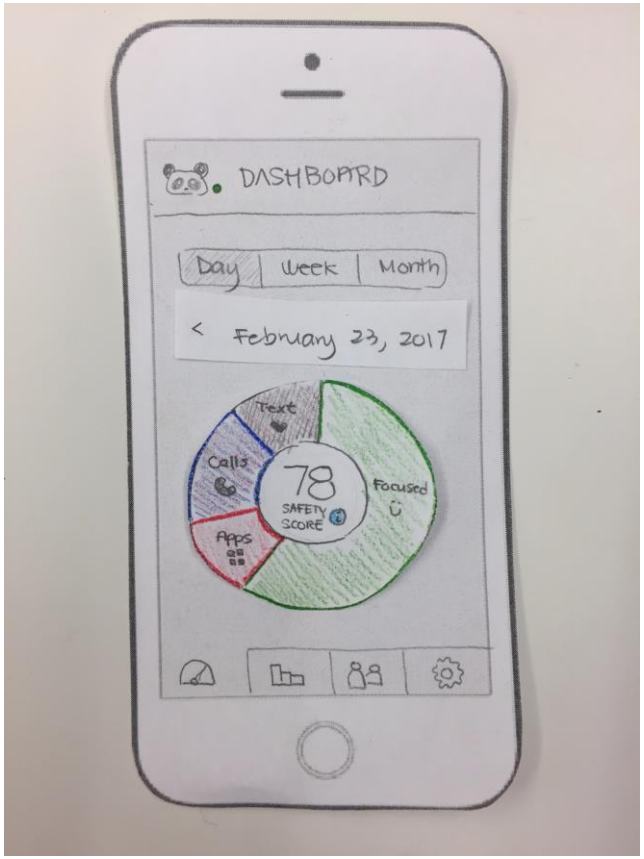
“Allowed activities” settings permitted illegal activities

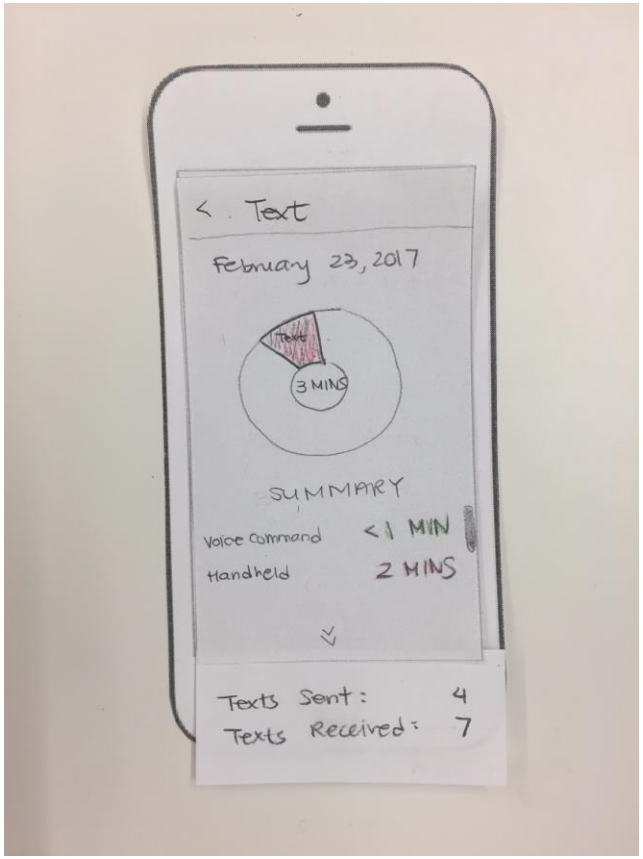
So we added detailed stats
“Top App”
about them instead



No detail view for data on stats or dashboard

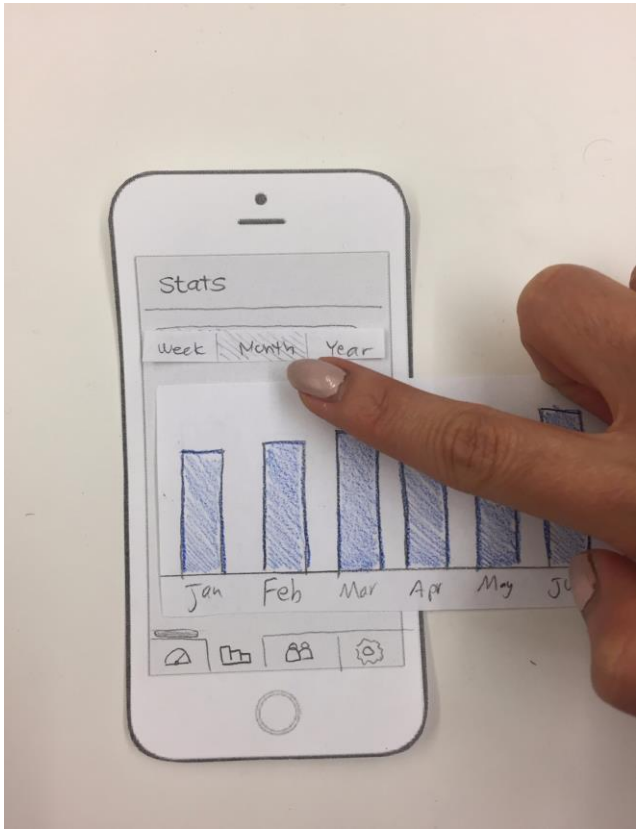
So we added a detail view





Stats graphs did not afford clicking or scrolling

So we made bars thicker and added a scrollbar

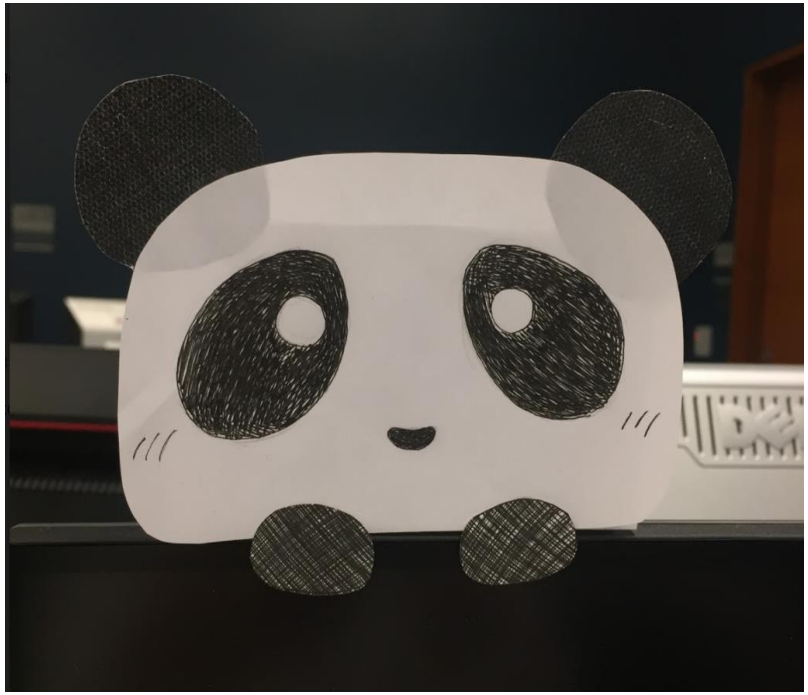


Final Paper Prototype

OVERVIEW

Final Paper Prototype

TASK 1: PROCESSING & VISUALIZING DATA

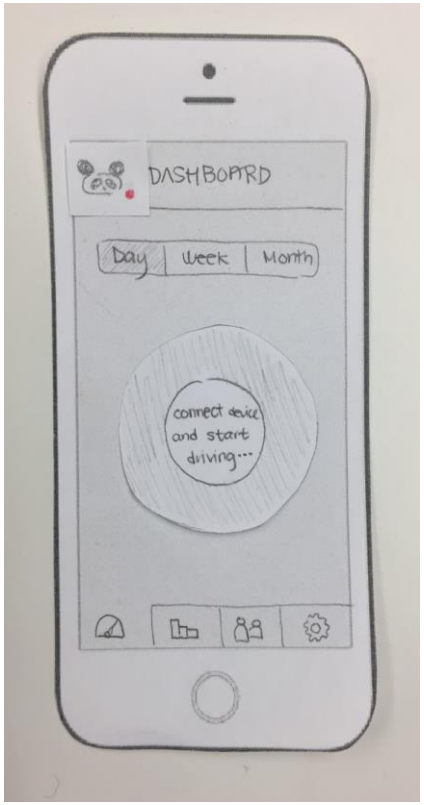


Clip on to Mirror
Buttons & Light on the left side

→

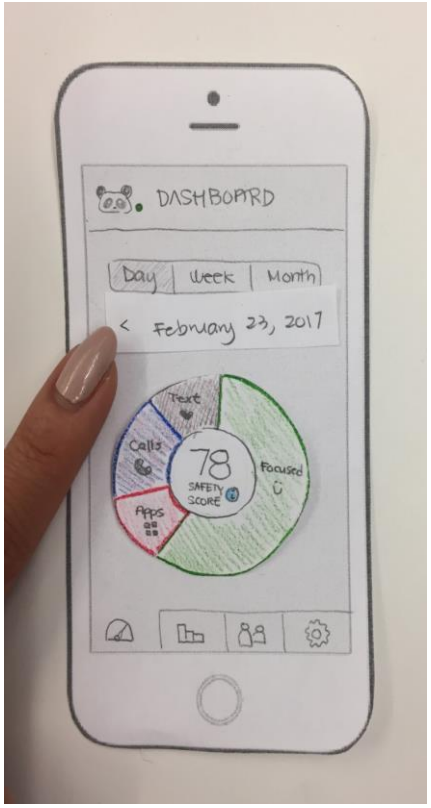
Final Paper Prototype

TASK 1: PROCESSING & VISUALIZING DATA



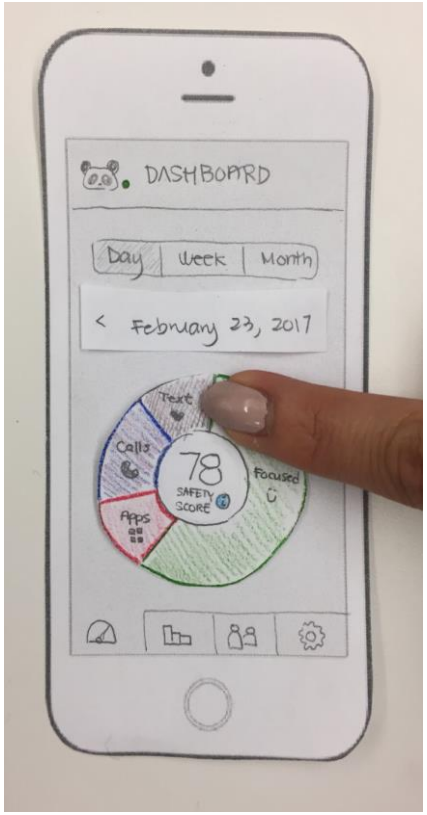
New User
Detailed View of Text

→



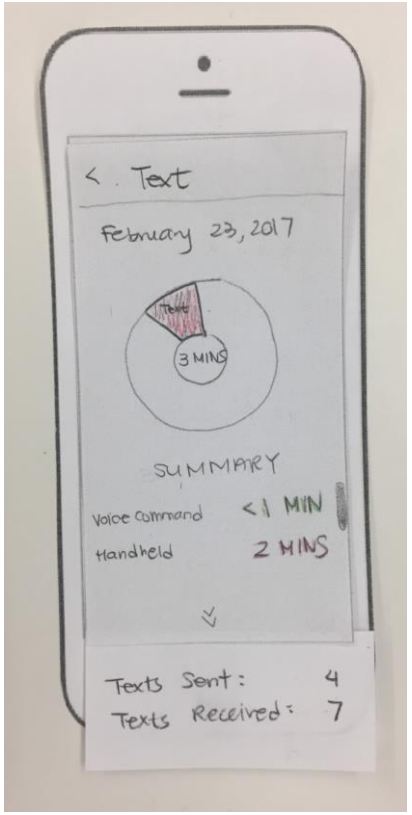
Dashboard

→



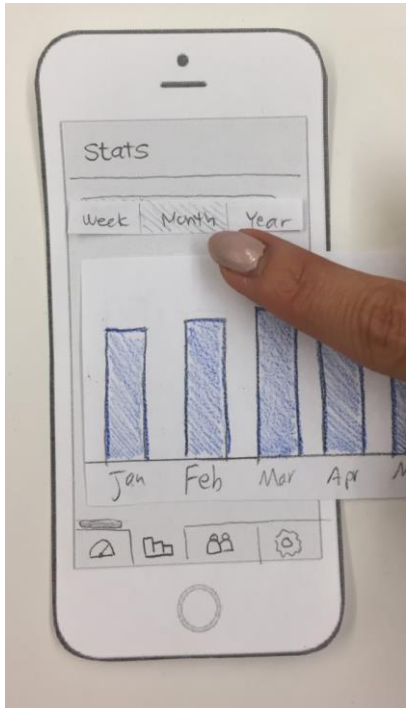
Click on Pie Chart

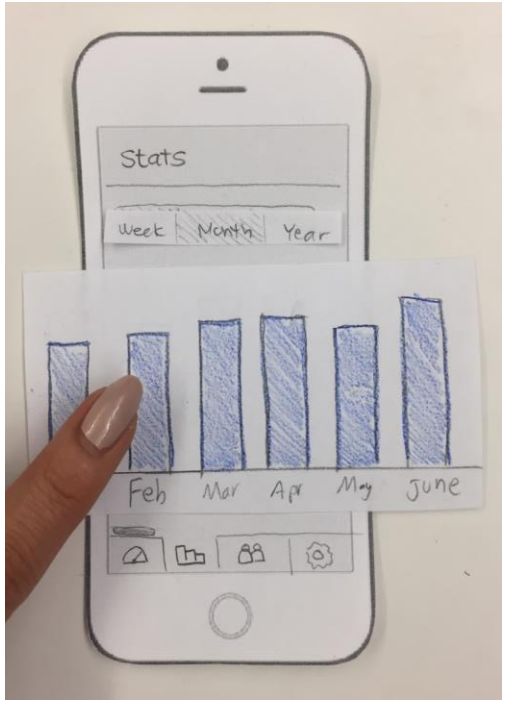
→

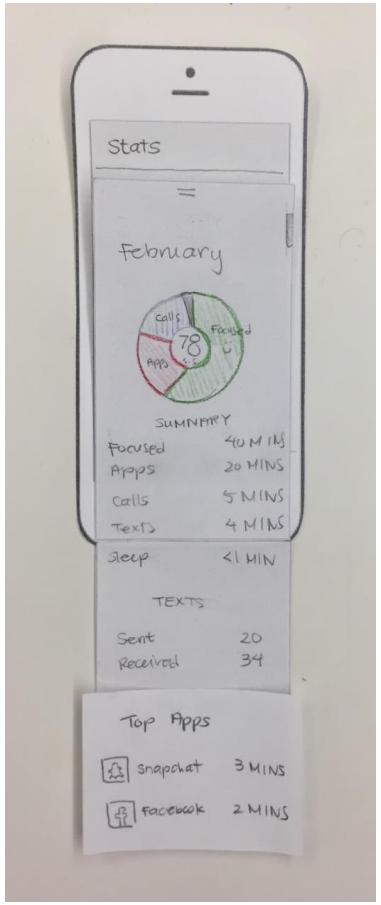


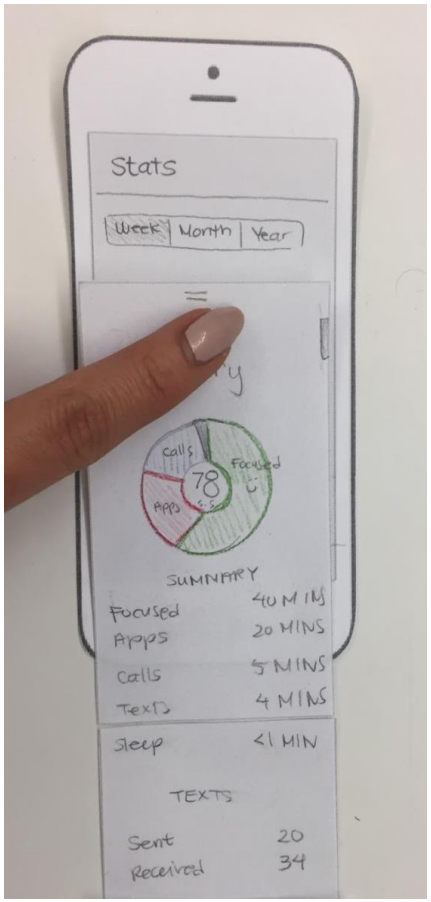
Final Paper Prototype

TASK 1: PROCESSING & VISUALIZING DATA





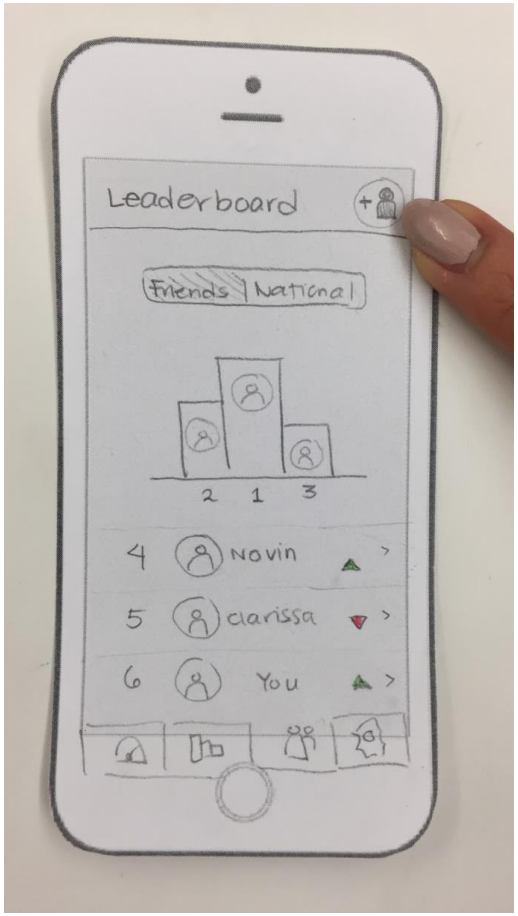




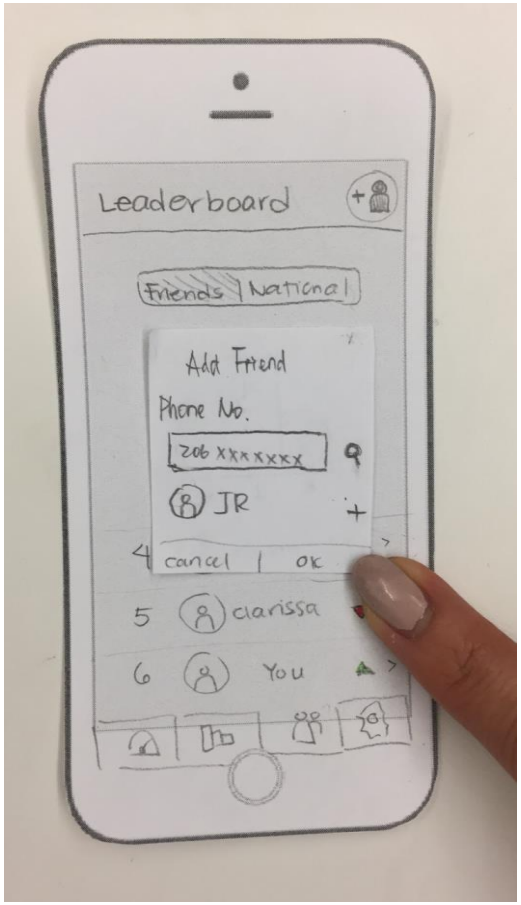
Monthly Stats Swipe Down → Click on Feb → Detailed View of Feb →

Final Paper Prototype

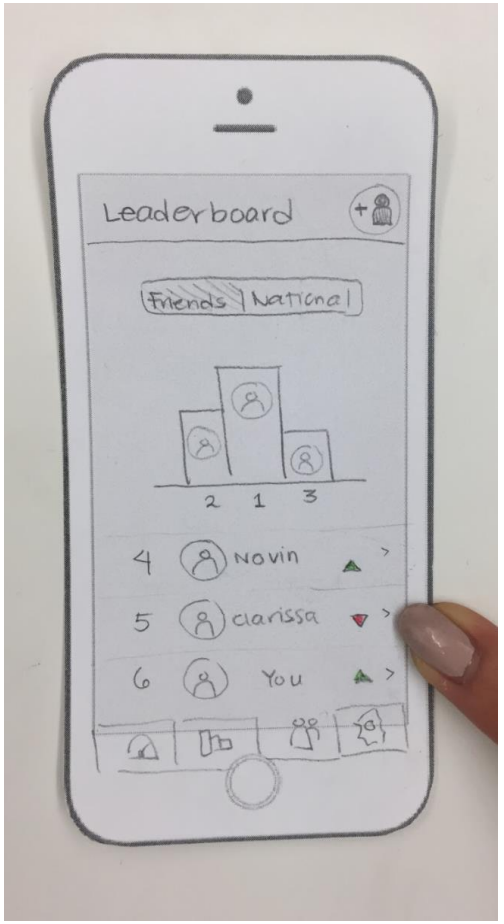
TASK 2: SHARING & COMPARING DRIVING HABITS



Add Friend



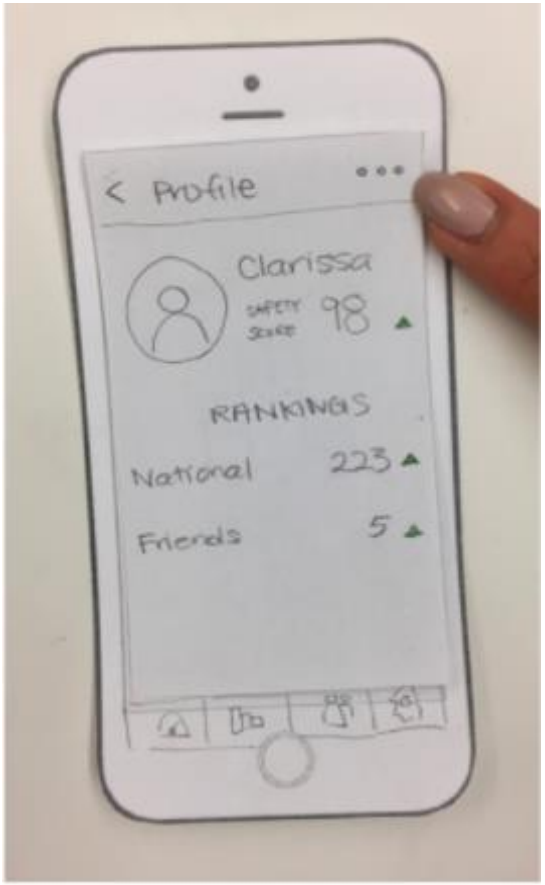
Friend → Find Friend



→ Checkout

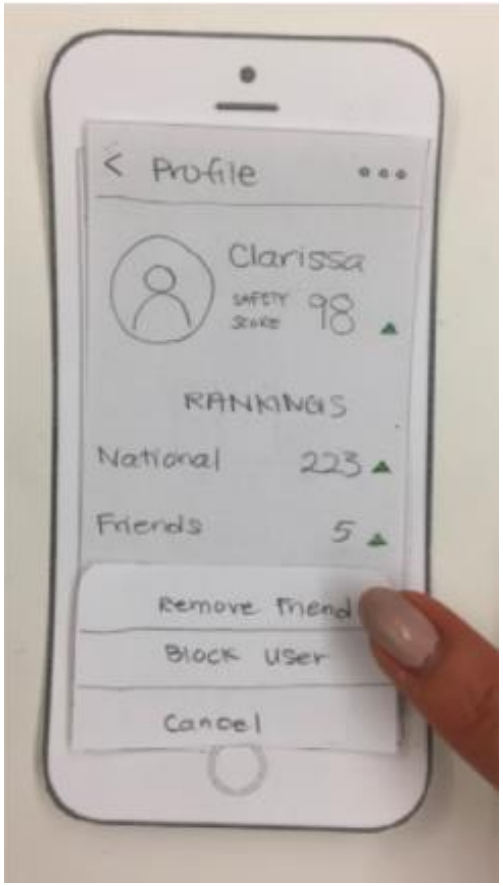
Final Paper Prototype

TASK 2: SHARING & COMPARING DRIVING HABITS



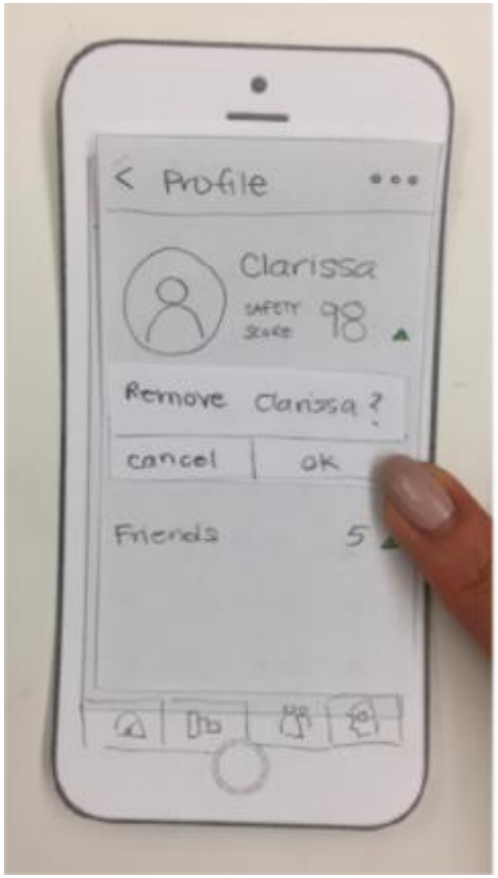
Option
Remove Friend

→



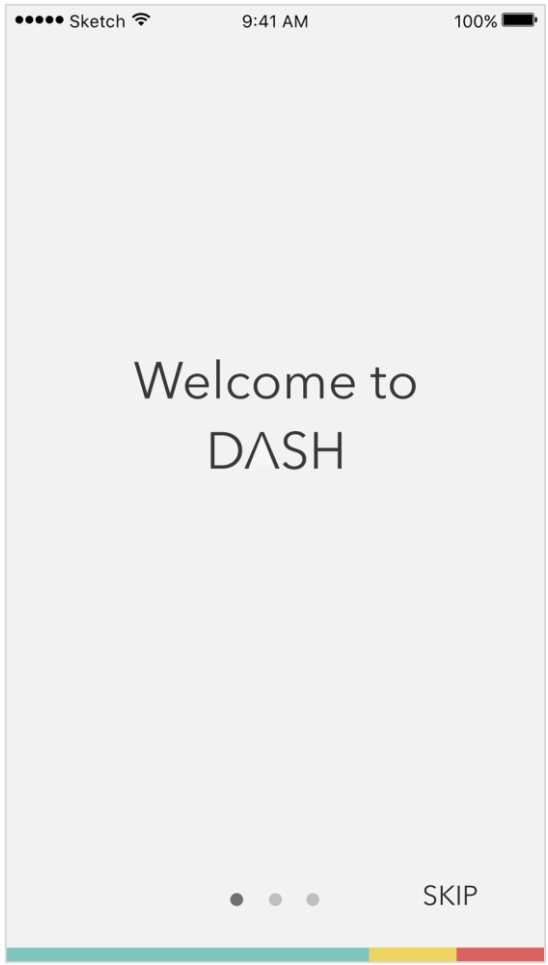
Pick Action

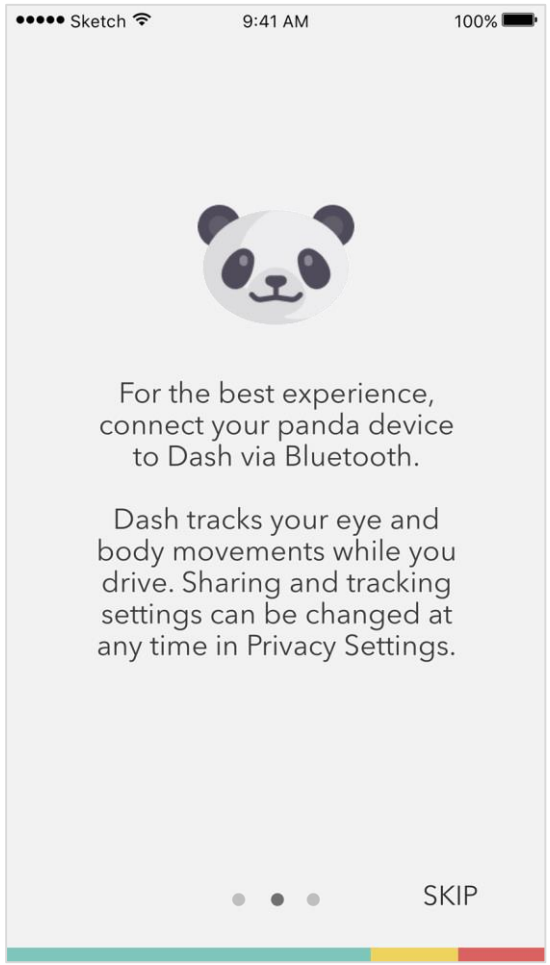
→

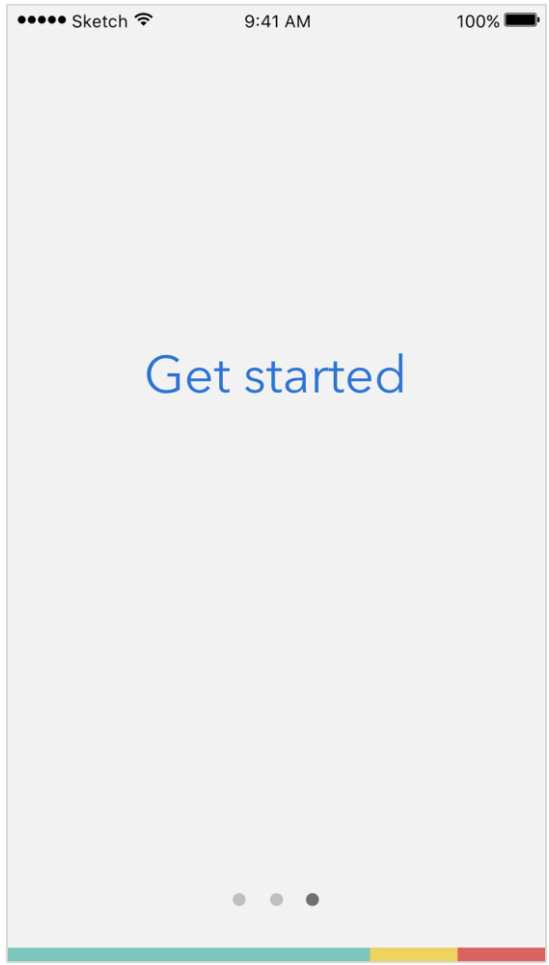


Digital Mockup

TUTORIAL

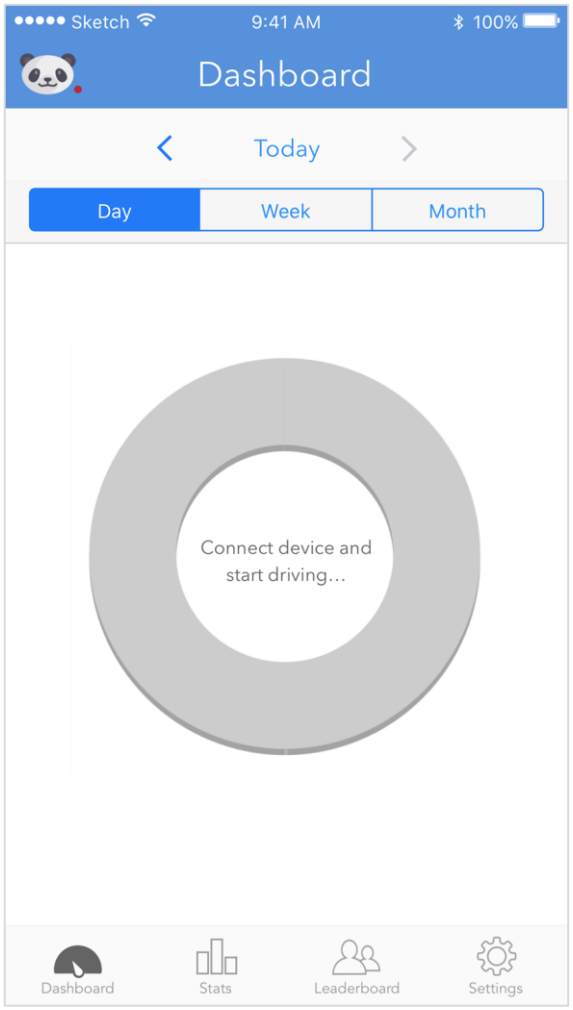


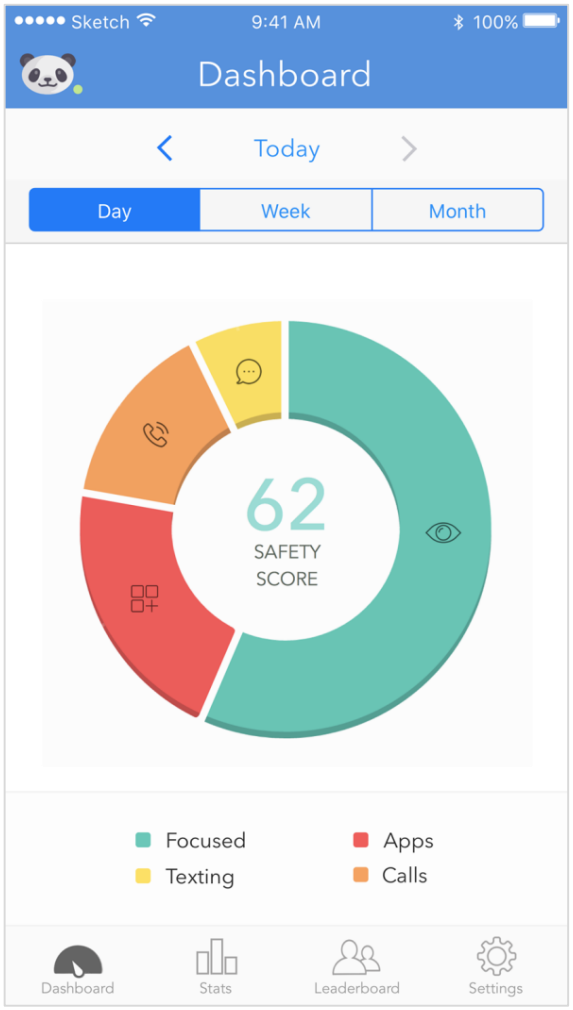




Digital Mockup

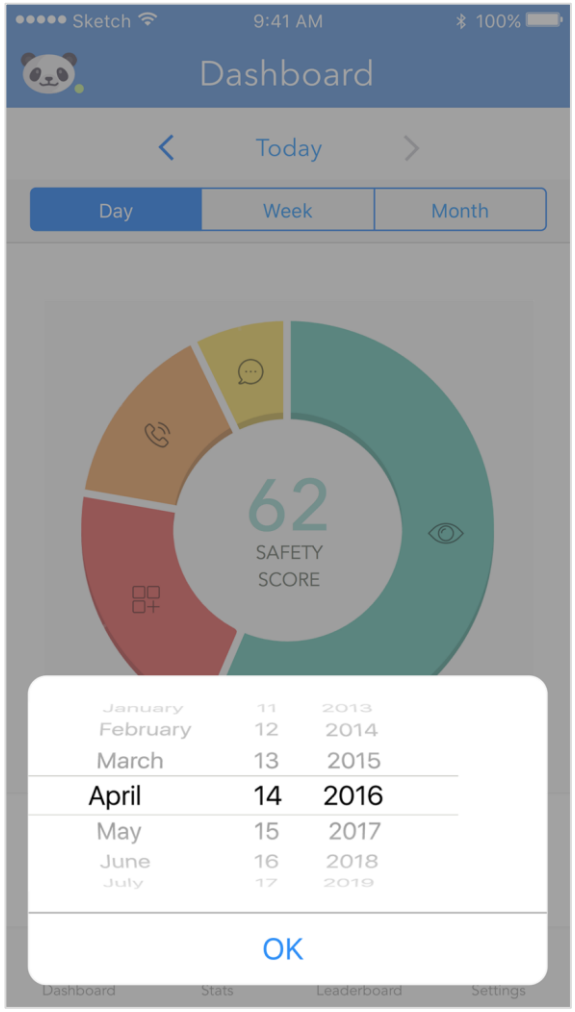
TASK 1: VISUALIZING & PROCESSING DRIVING DATA

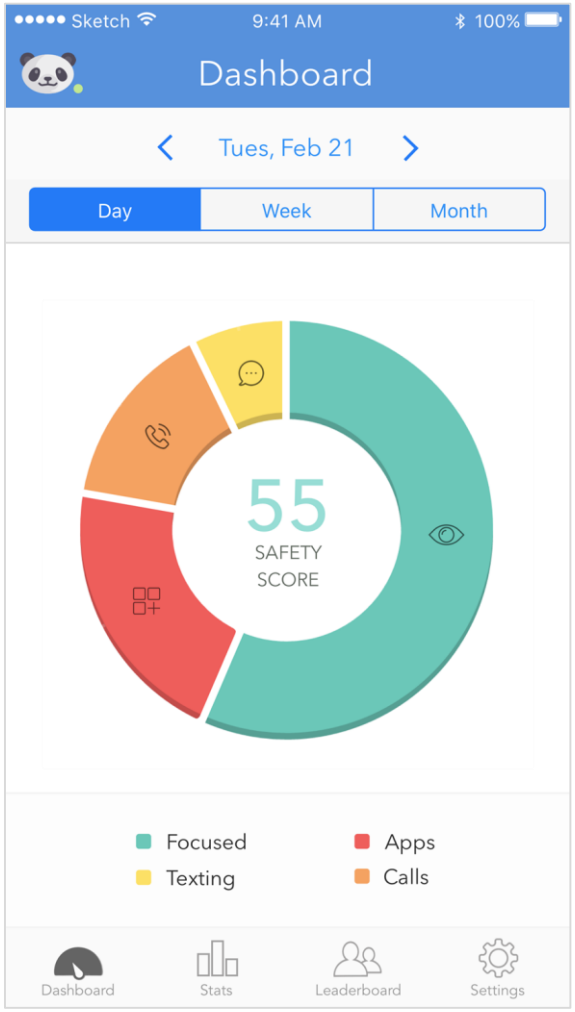




Digital Mockup

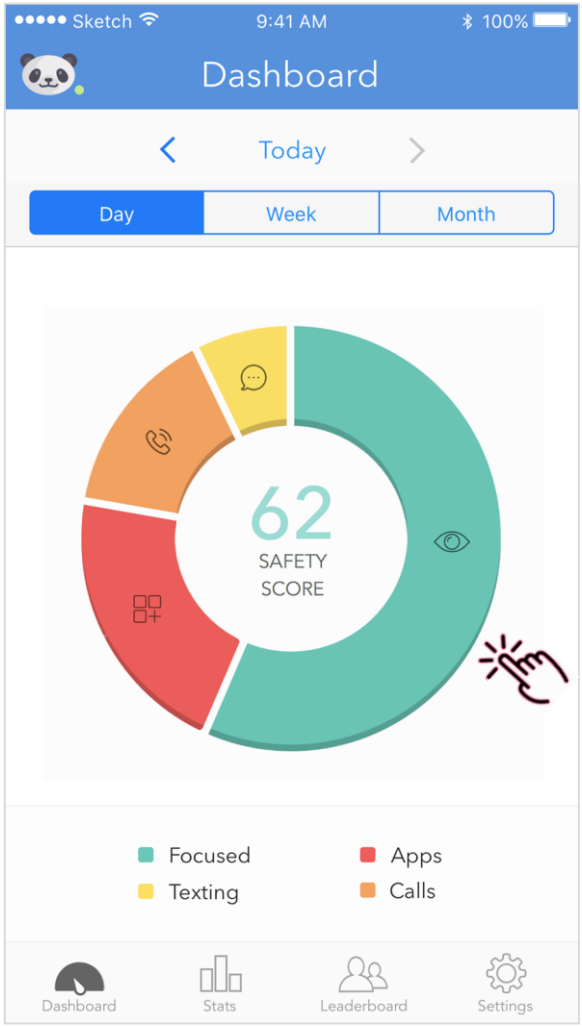
TASK 1: VISUALIZING & PROCESSING DRIVING DATA

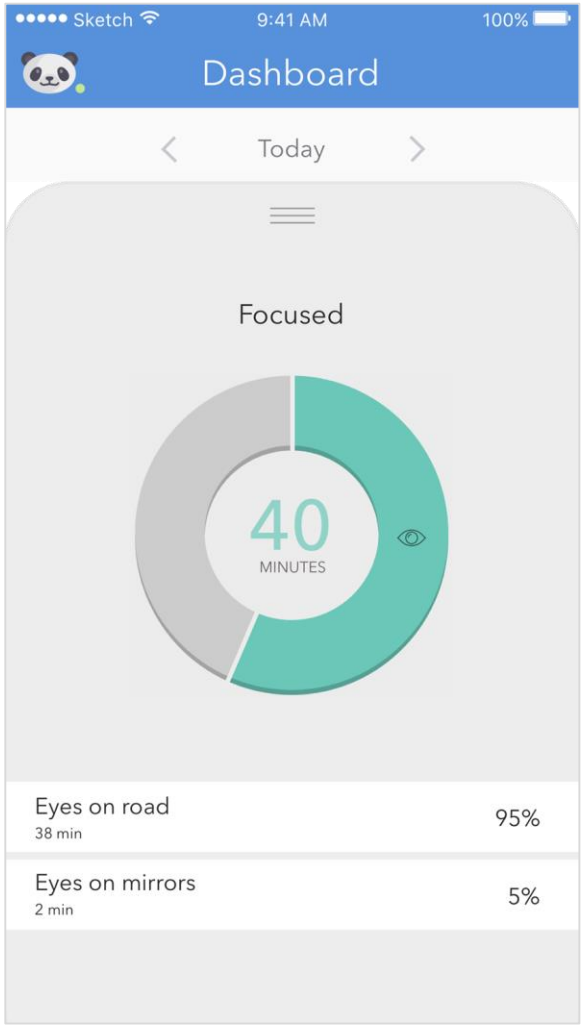


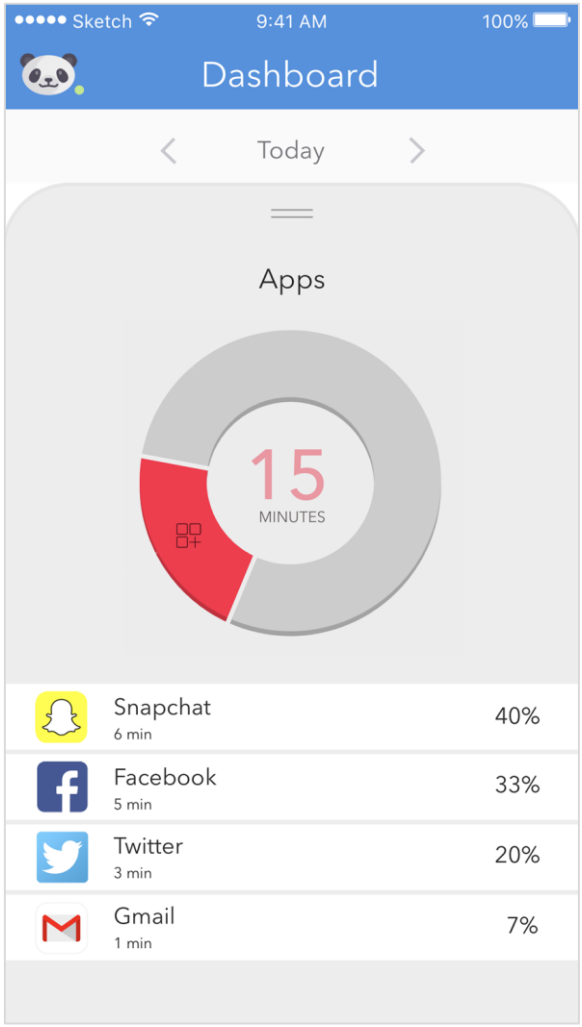


Digital Mockup

TASK 1: VISUALIZING & PROCESSING DRIVING DATA







Digital Mockup

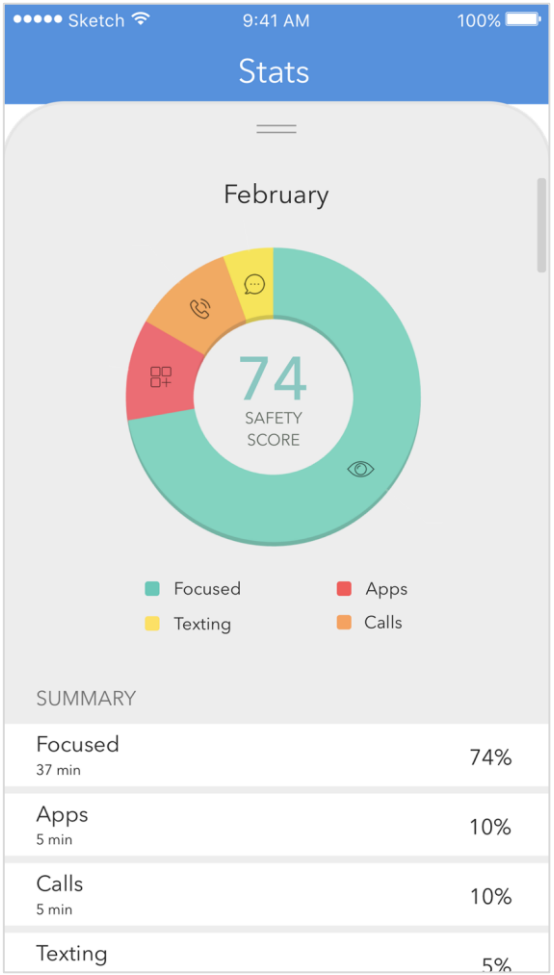
TASK 1: VISUALIZING & PROCESSING DRIVING DATA

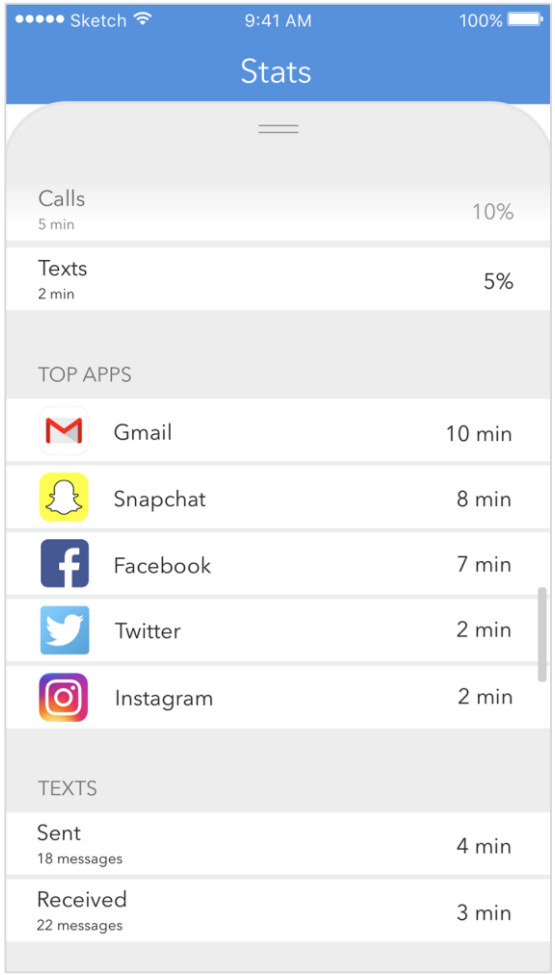
Digital Mockup

TASK 1: VISUALIZING & PROCESSING DRIVING DATA

Digital Mockup

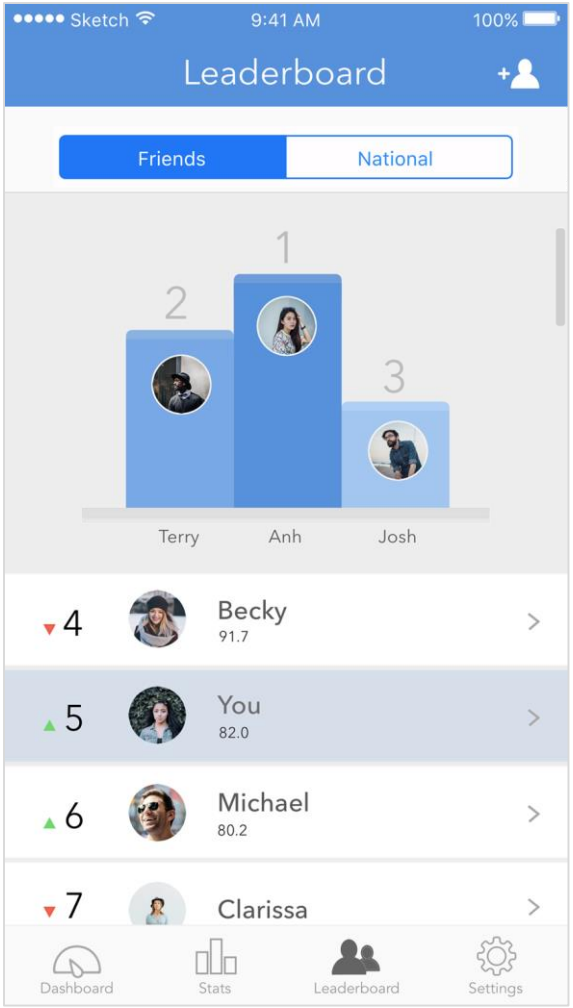
TASK 1: VISUALIZING & PROCESSING DRIVING DATA





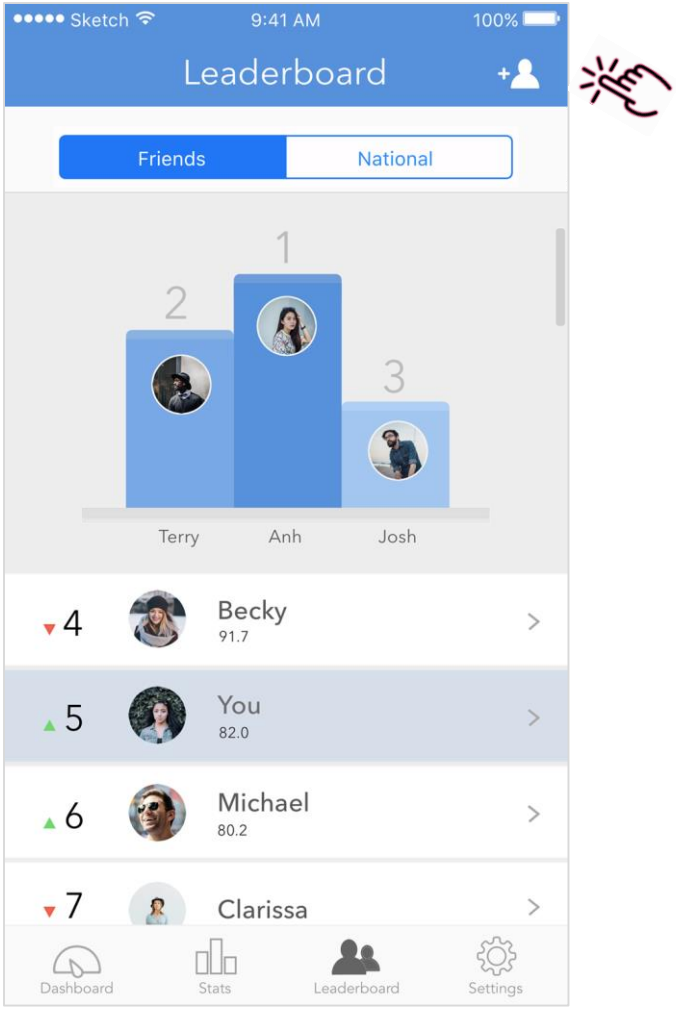
Digital Mockup

TASK 2: SHARING & COMPARING DRIVING HABITS



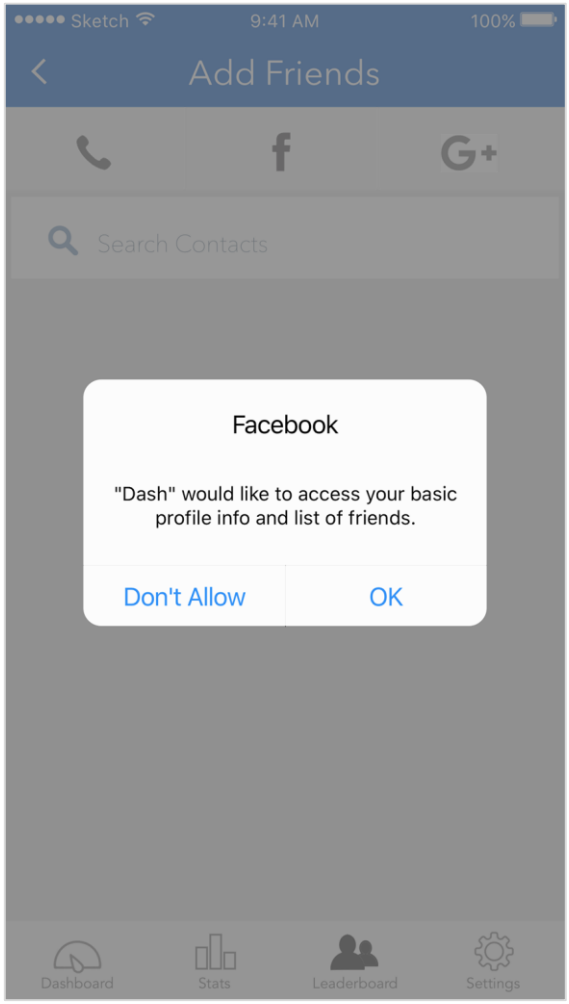
Digital Mockup

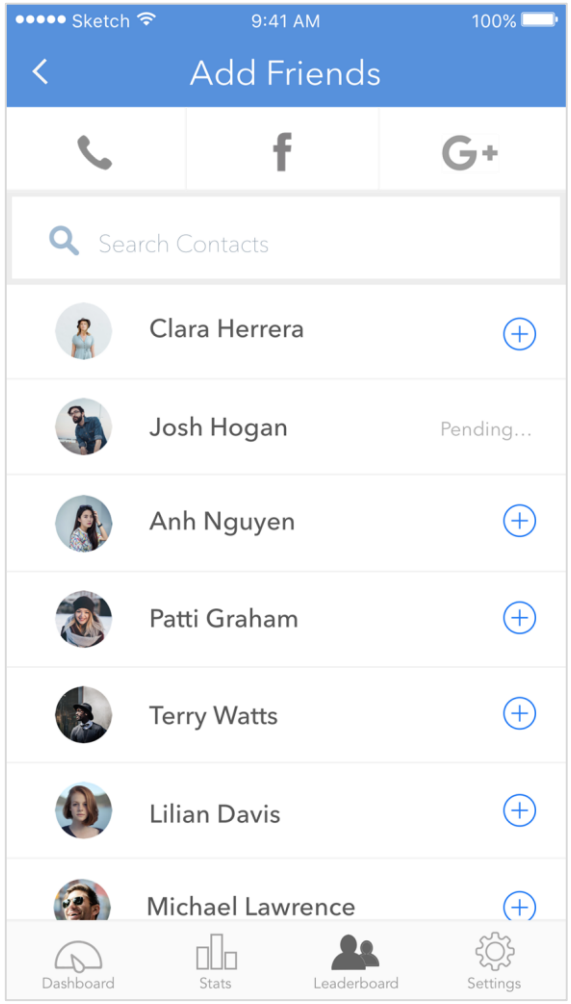
TASK 2: SHARING & COMPARING DRIVING HABITS

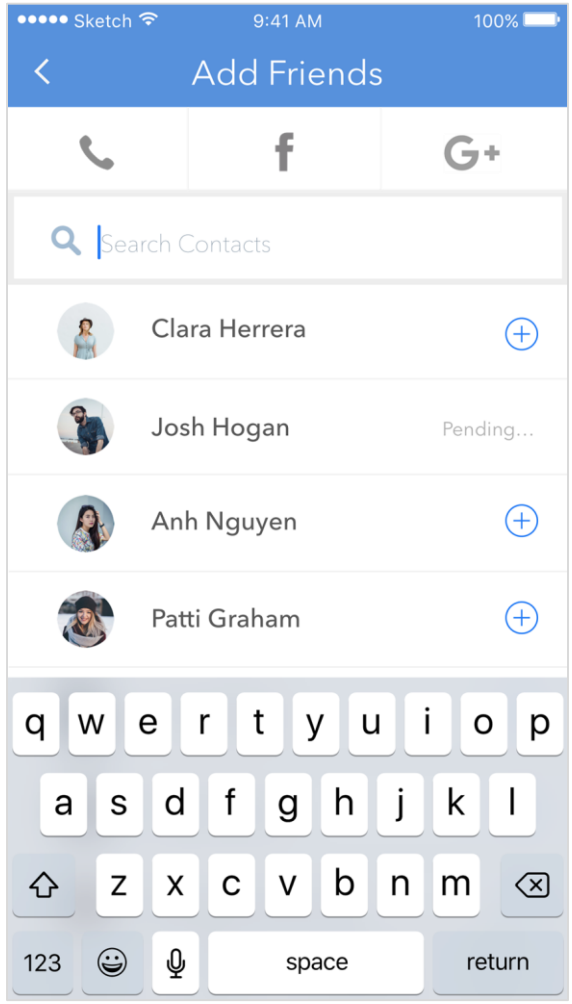


Digital Mockup

TASK 2: SHARING & COMPARING DRIVING HABITS

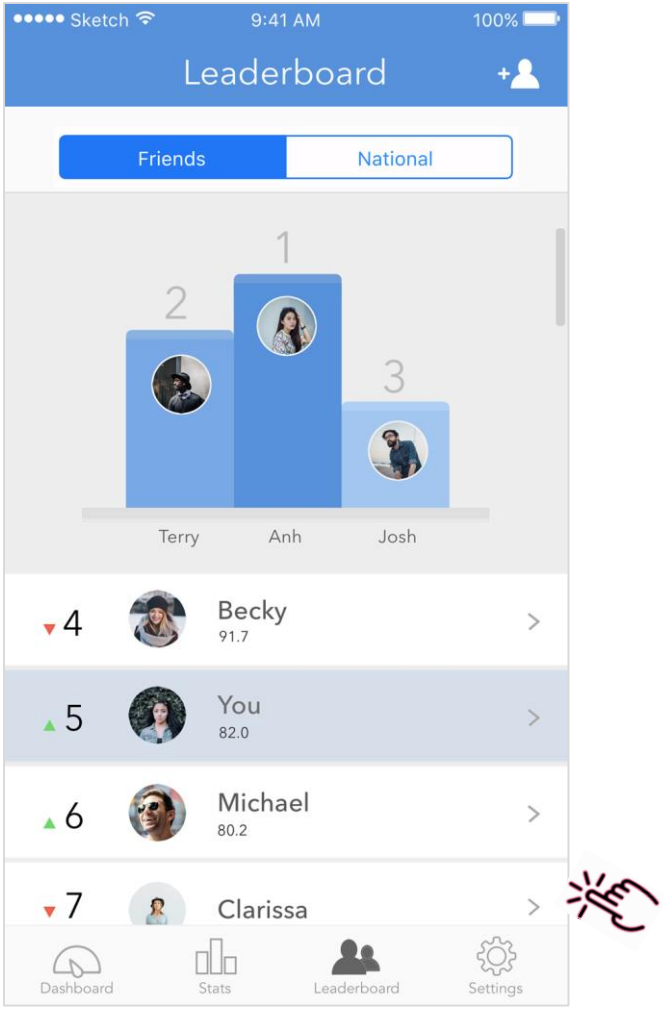






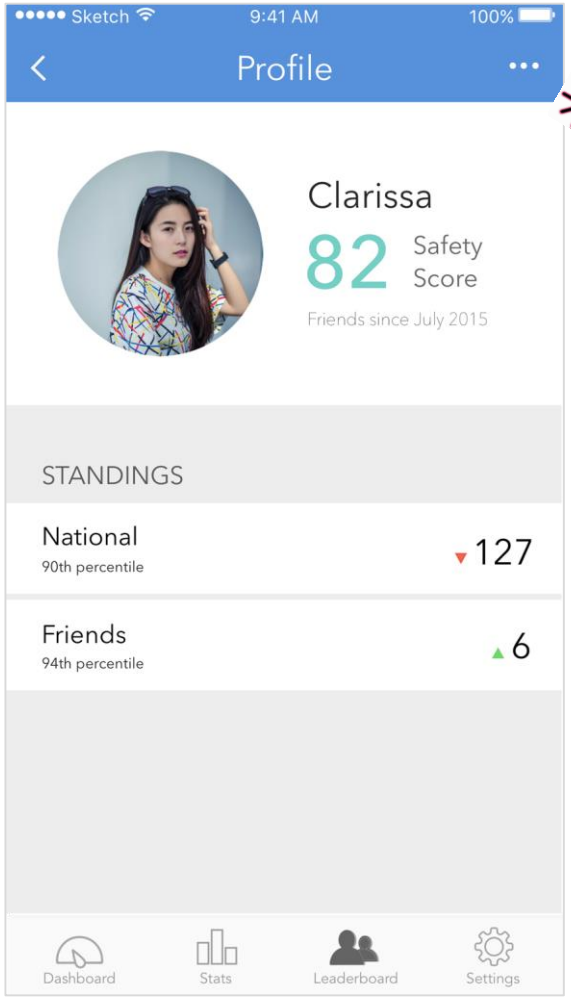
Digital Mockup

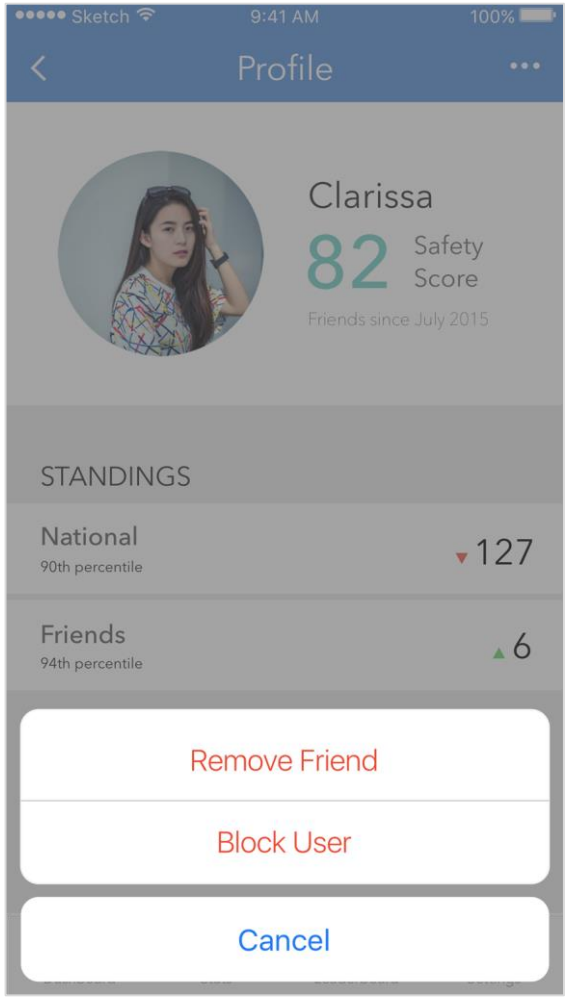
TASK 2: SHARING & COMPARING DRIVING HABITS



Digital Mockup

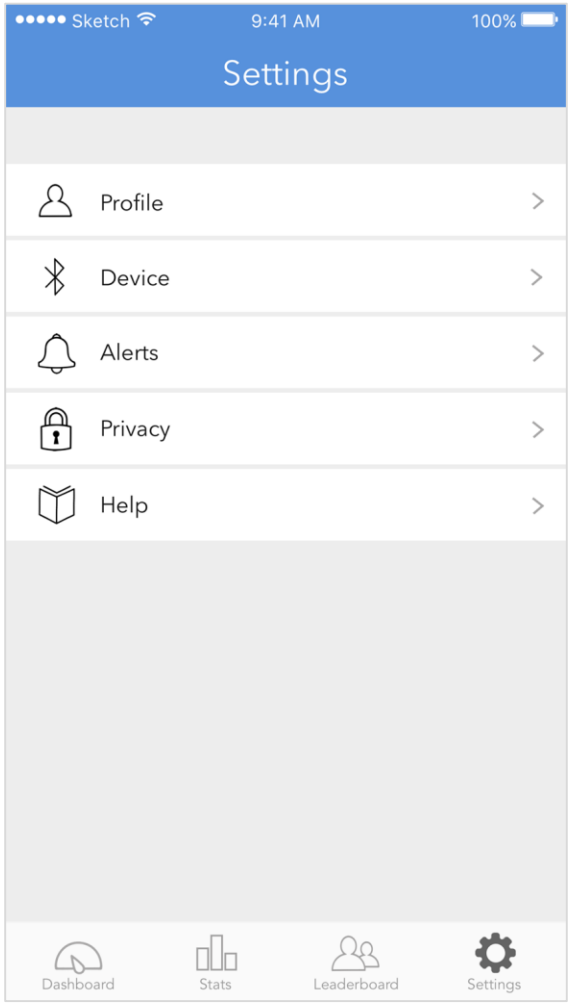
TASK 2: SHARING & COMPARING DRIVING HABITS

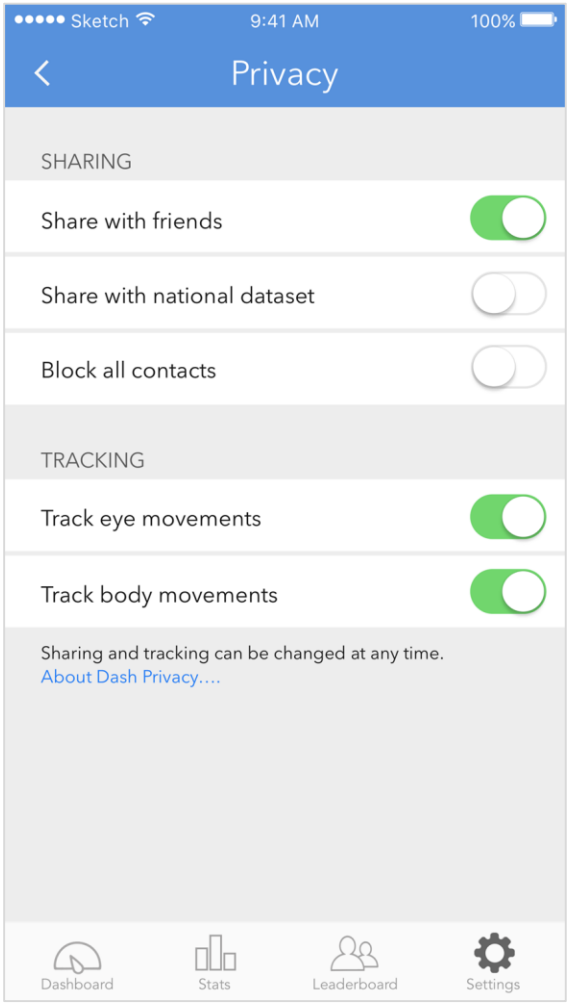




Digital Mockup

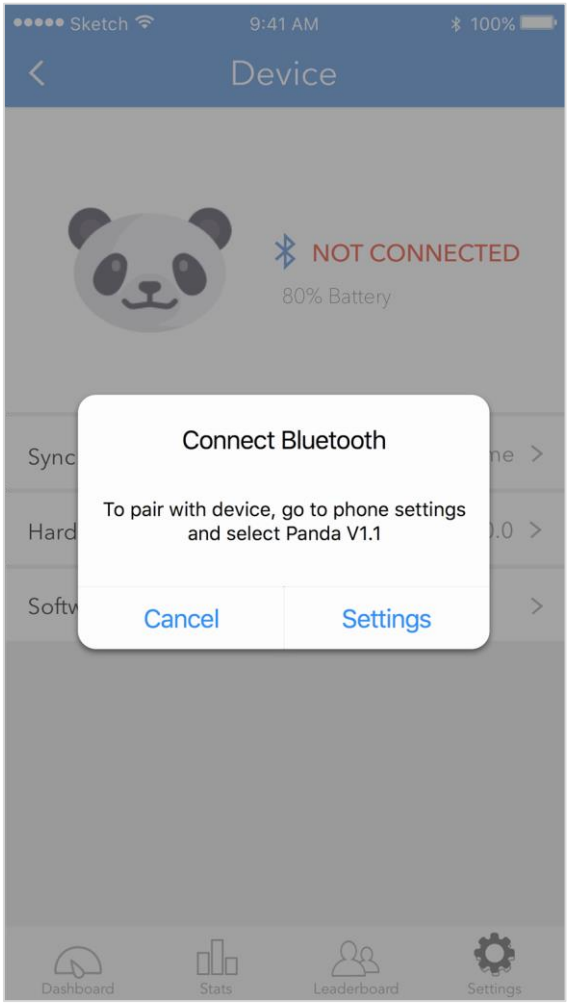
SETTINGS

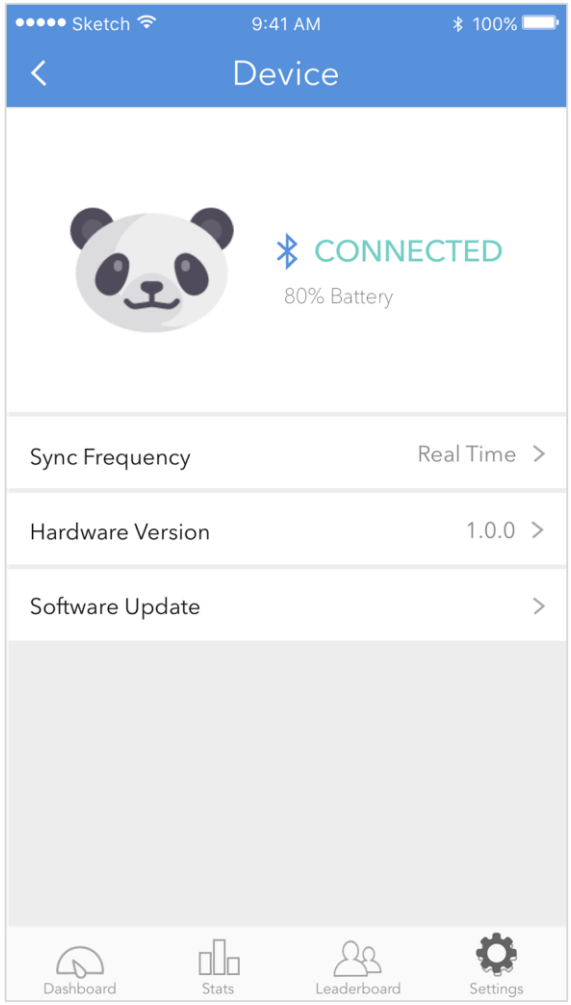


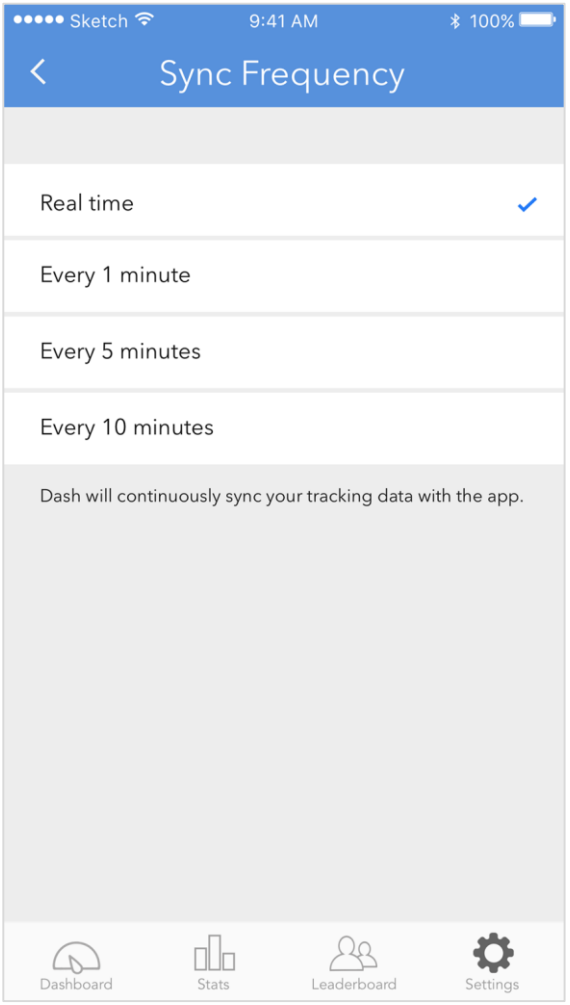


Digital Mockup

SETTINGS

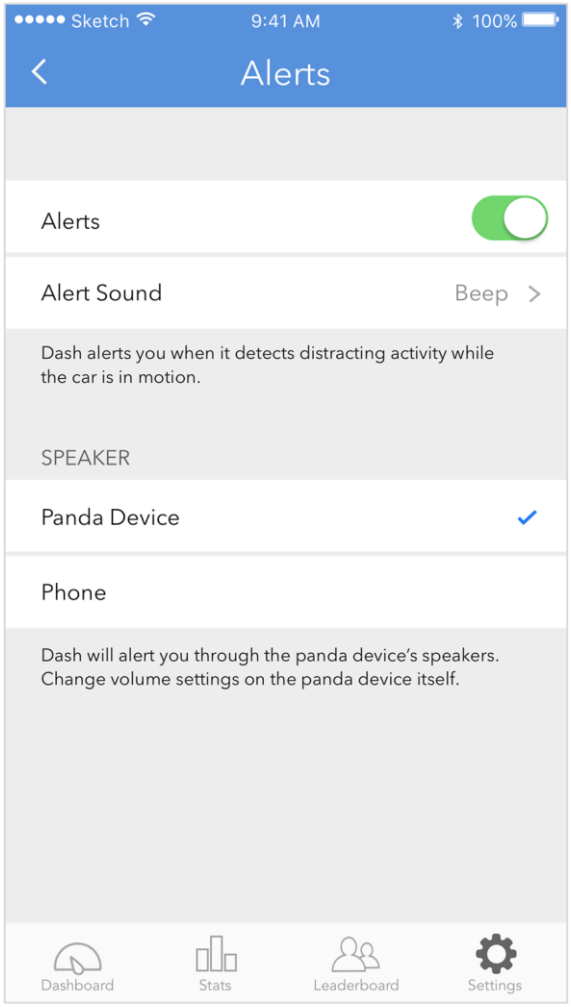


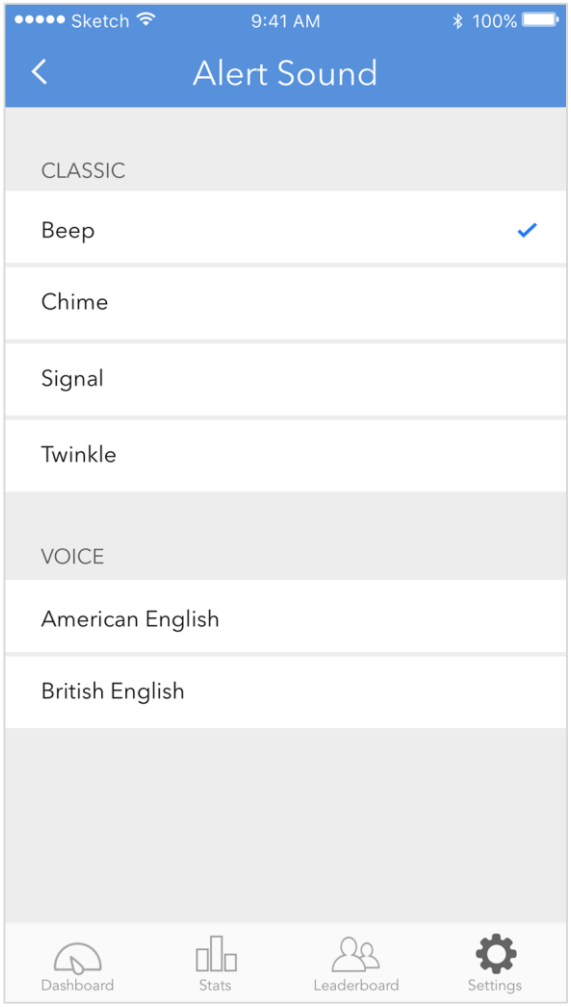




Digital Mockup

SETTINGS





Summary

- Initial design is never perfect
- Prototyping and iterative testing are extremely effective in identifying areas of improvements

- Stay low fidelity!

DASH

Questions?