AQUEOUS

Your Water Drinking Expert

Cindy Fan: Designer
Rick Huang: Web Developer
Maggie Liu: Documentation
Ethan Zhang: Project Manager

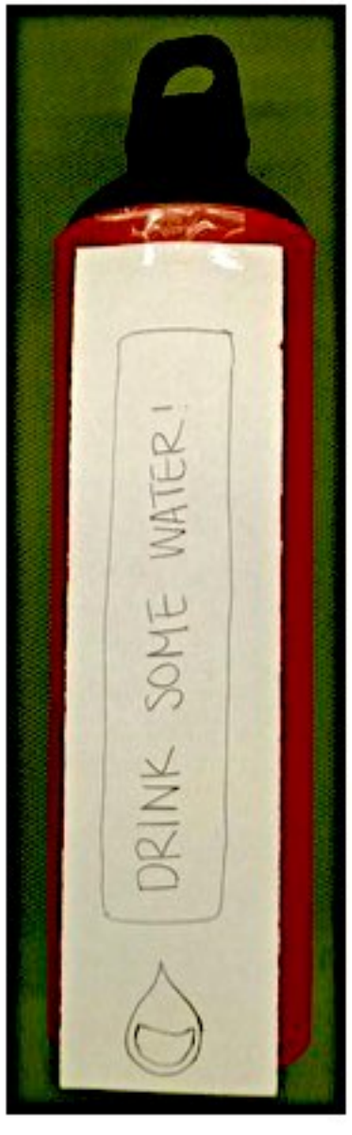
Overall Problem

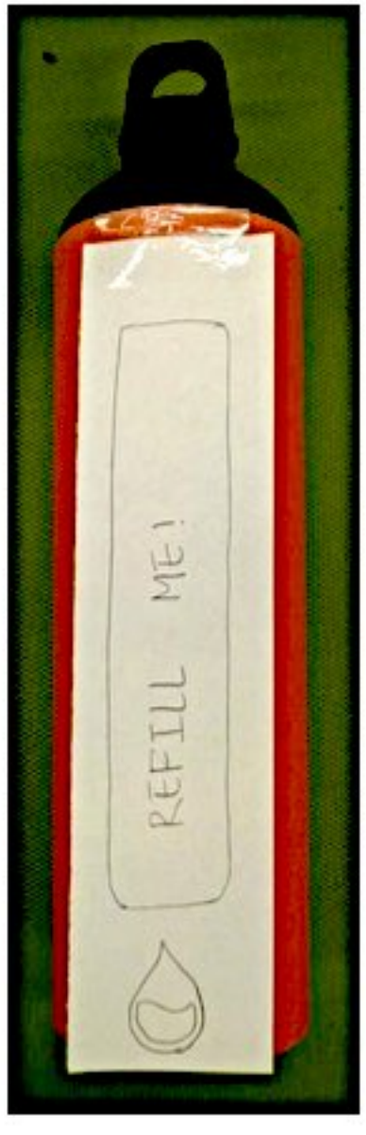
- 60% of human body is water *
- People should drink eight 8-ounce glasses of water each day (8 × 8 rule) **
- People often forget to drink enough water
- Up to 75% of Americans suffer from chronic dehydration ***

* http://www.medicaldaily.com/75-americans-may-suffer-chronic-dehydration-according-doctors-247393
** http://authoritynutrition.com/how-much-water-should-you-drink-per-day
*** http://water.usgs.gov/edu/propertyyou.html

Initial Paper Prototype

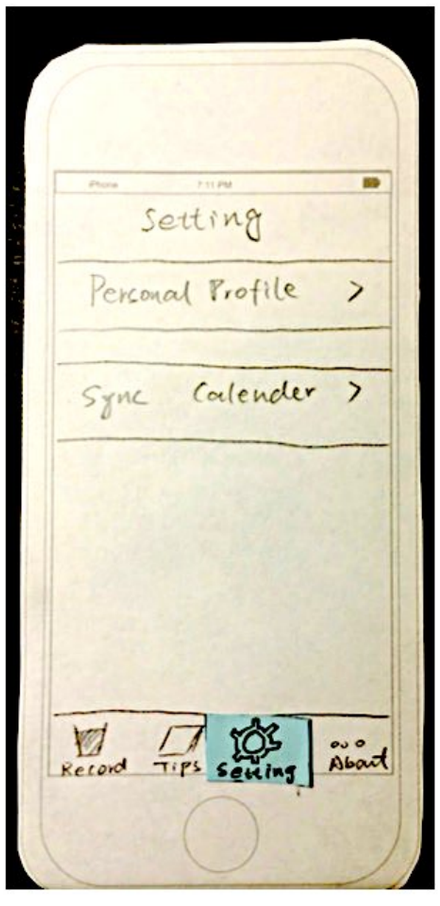
Smart Water Bottle

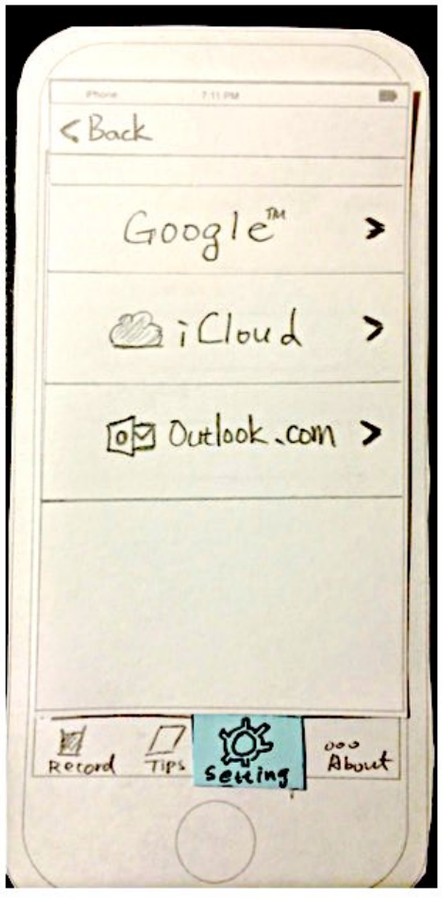


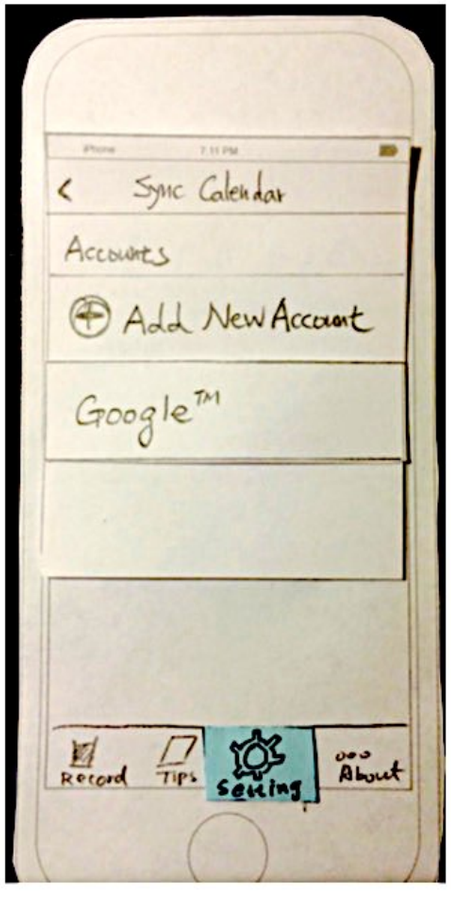


Initial Paper Prototype

Task1 - Set Up Smart Reminders

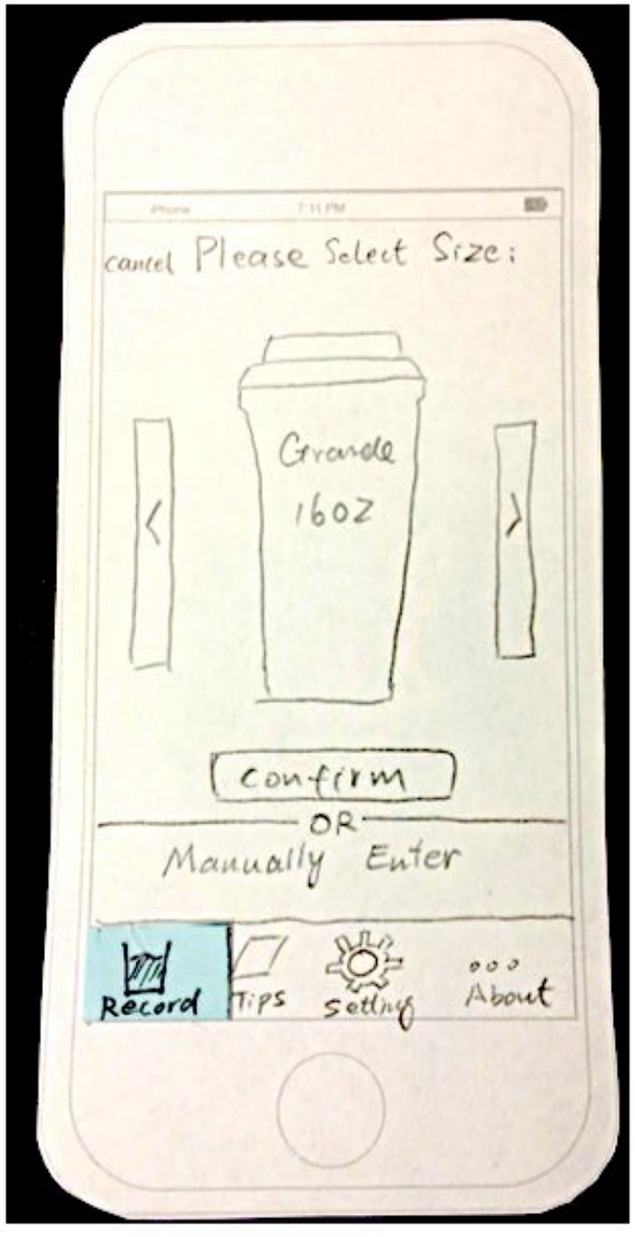


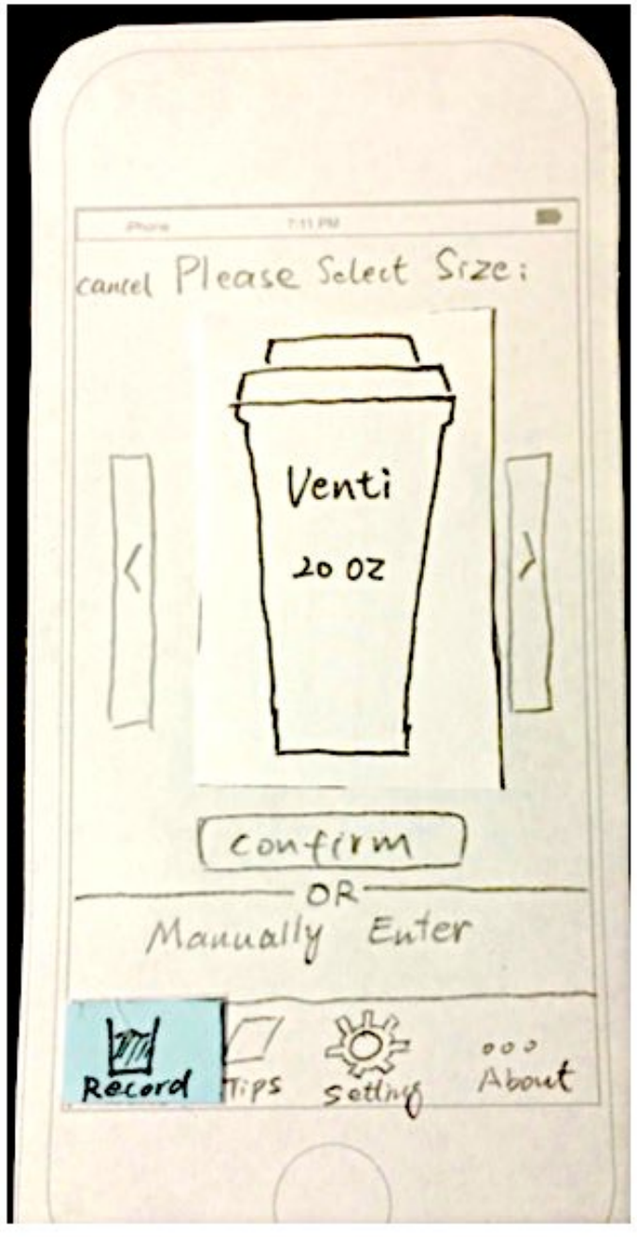




Initial Paper Prototype

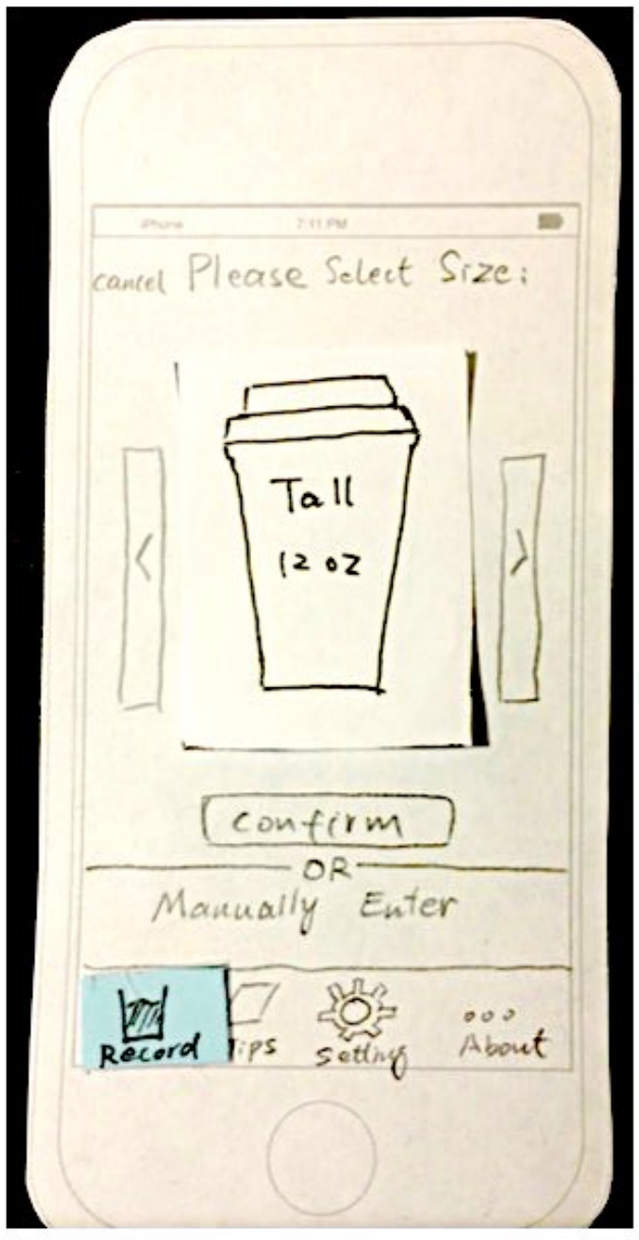
Task2 - Record Water Intake (1/2)

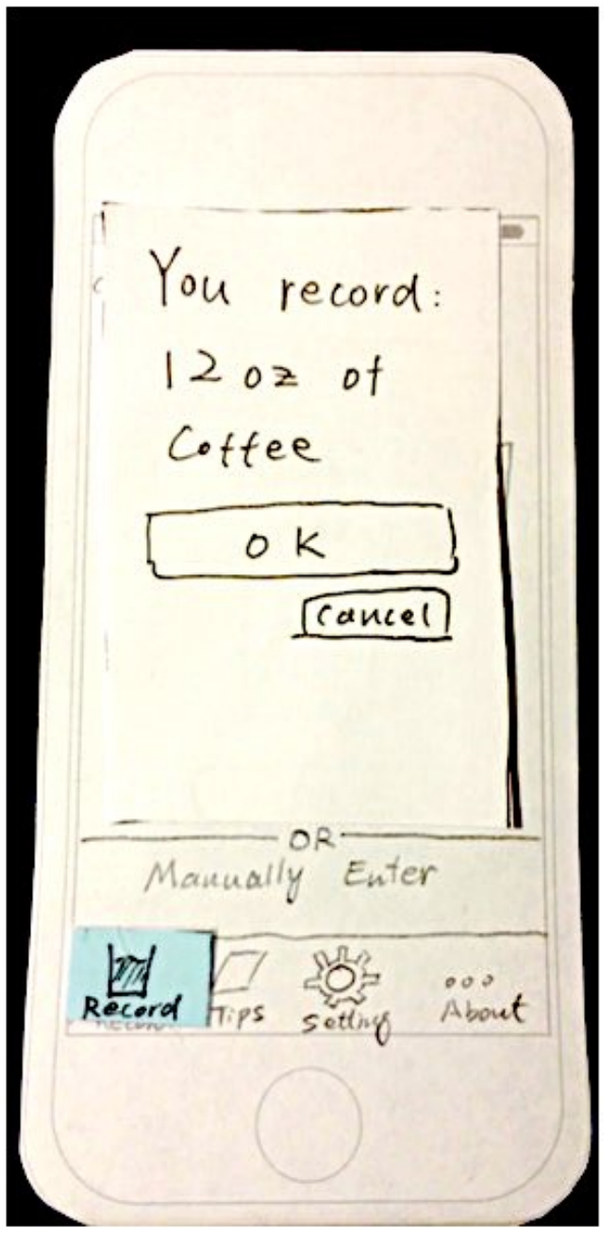




Initial Paper Prototype

Task2 - Record Water Intake (2/2)





Heuristic Evaluation

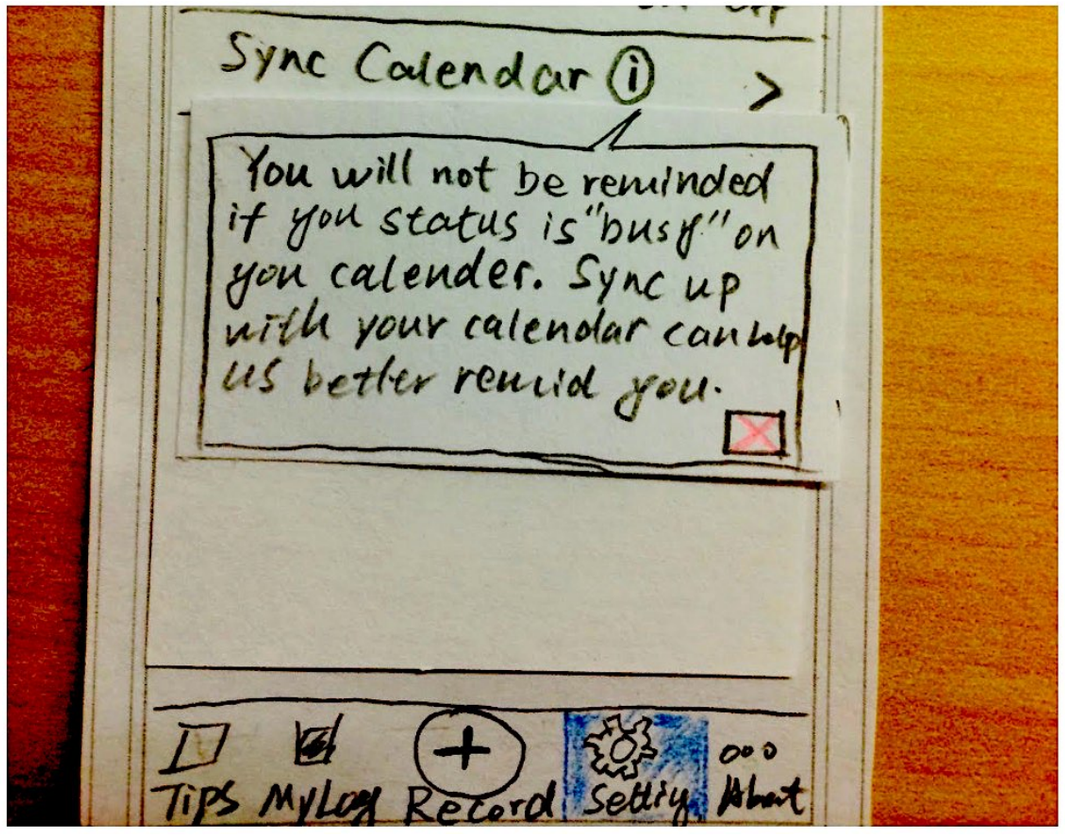
Main violations:

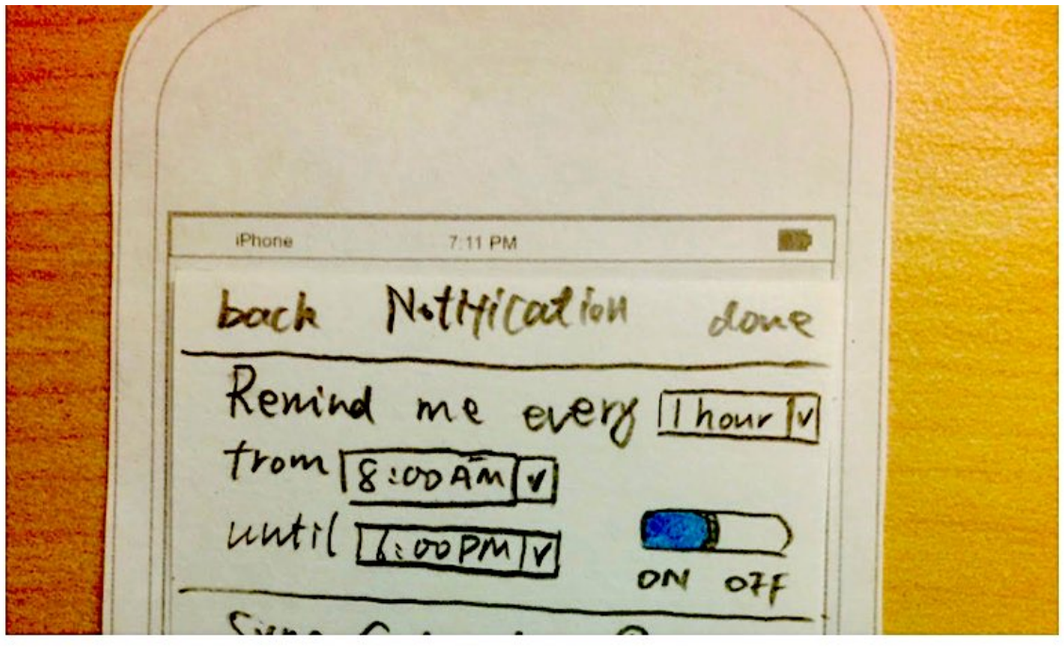
- Purpose of syncing calendar unclear
- Users don’t have total control and freedom with the system
- Users don’t have visibility of system status
- Match between system and the real world is not good

Testing Process and Results

Refinements after Heuristic Evaluation (1/2)

Purpose of syncing calendar unclear



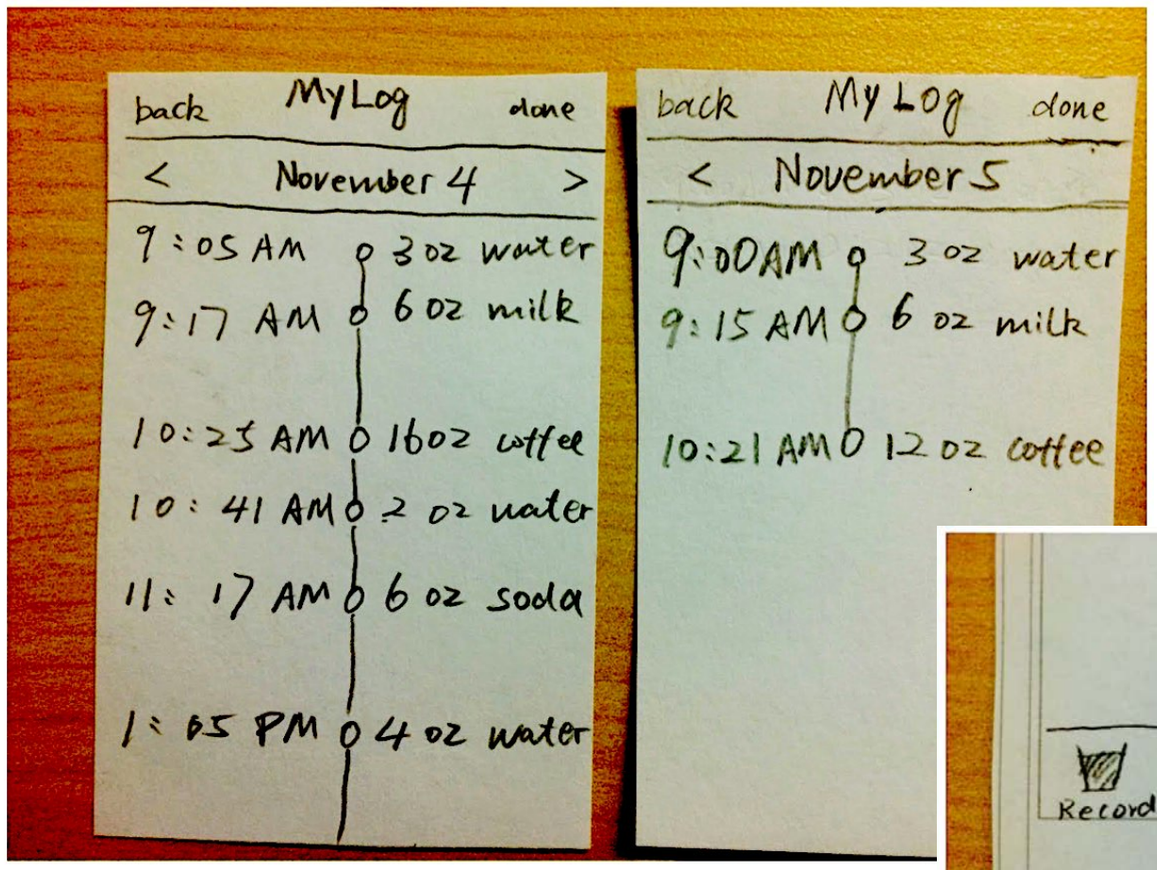


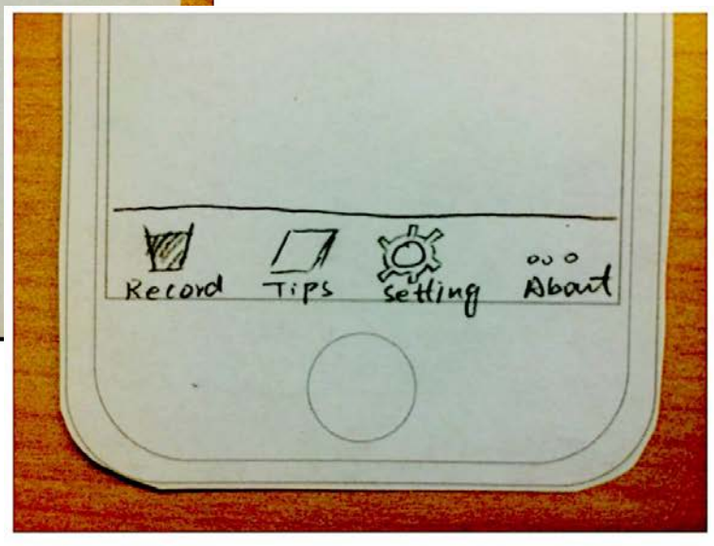
Missing default reminder setting

Testing Process and Results

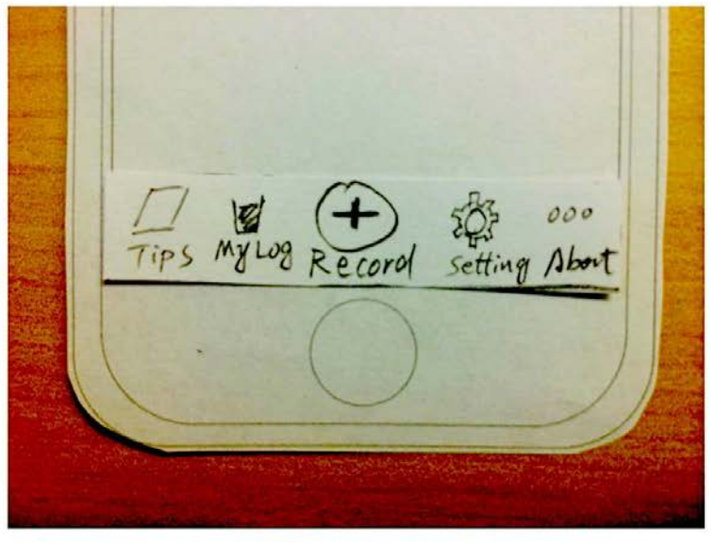
Refinements after Heuristic Evaluation (2/2)

Missing water log





Before



After

Menu design not match user behavior

Usability Testing

Method

- Did not answer questions or provide help unless absolutely necessary
- Debriefed participants after tests

Summary

- Test 1 - settings page and some UI elements
- Test 2 - settings page documentation and naming
- Test 3 - layout and simplicity

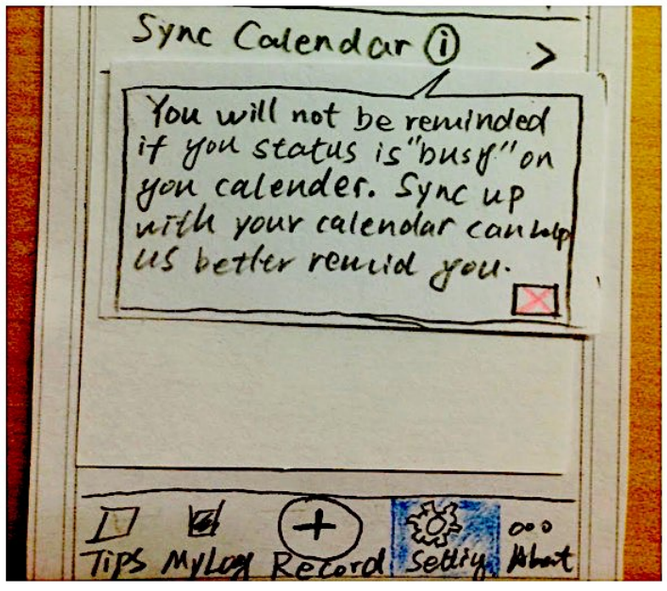
Usability Testing

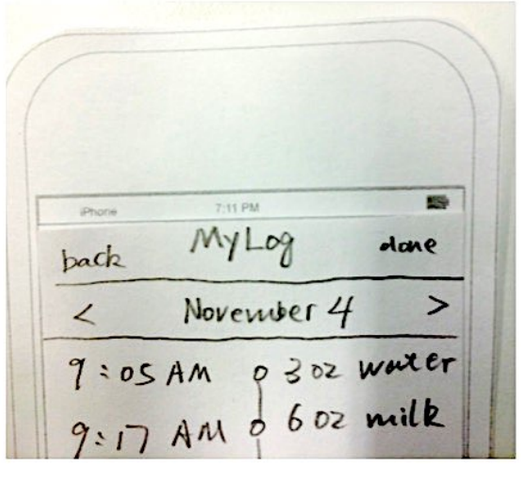
- **Purpose of syncing calendar unclear (Test 1)**
- **Unnecessary “back” and “done” buttons (Test 1)**
- Purpose of syncing calendar unclear (Test 2)
- Confusing default reminders with smart reminders (Test 2)
- Confused about menu bar (Test 3)
- Reminder settings page too cluttered (Test 3)

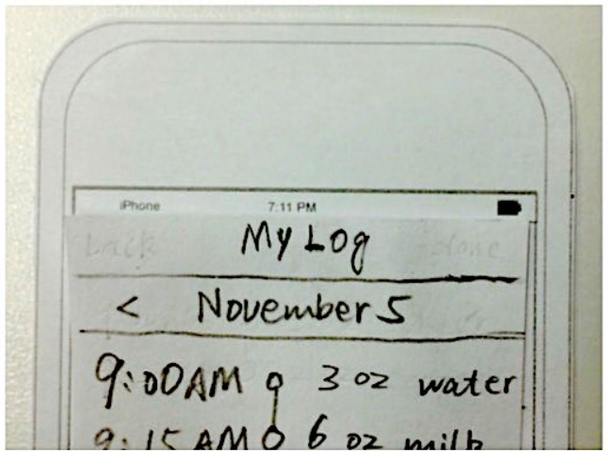
Testing Process and Results

Refinements after Usability Testing 1

Purpose of syncing calendar unclear







Unnecessary "back" and "done" buttons

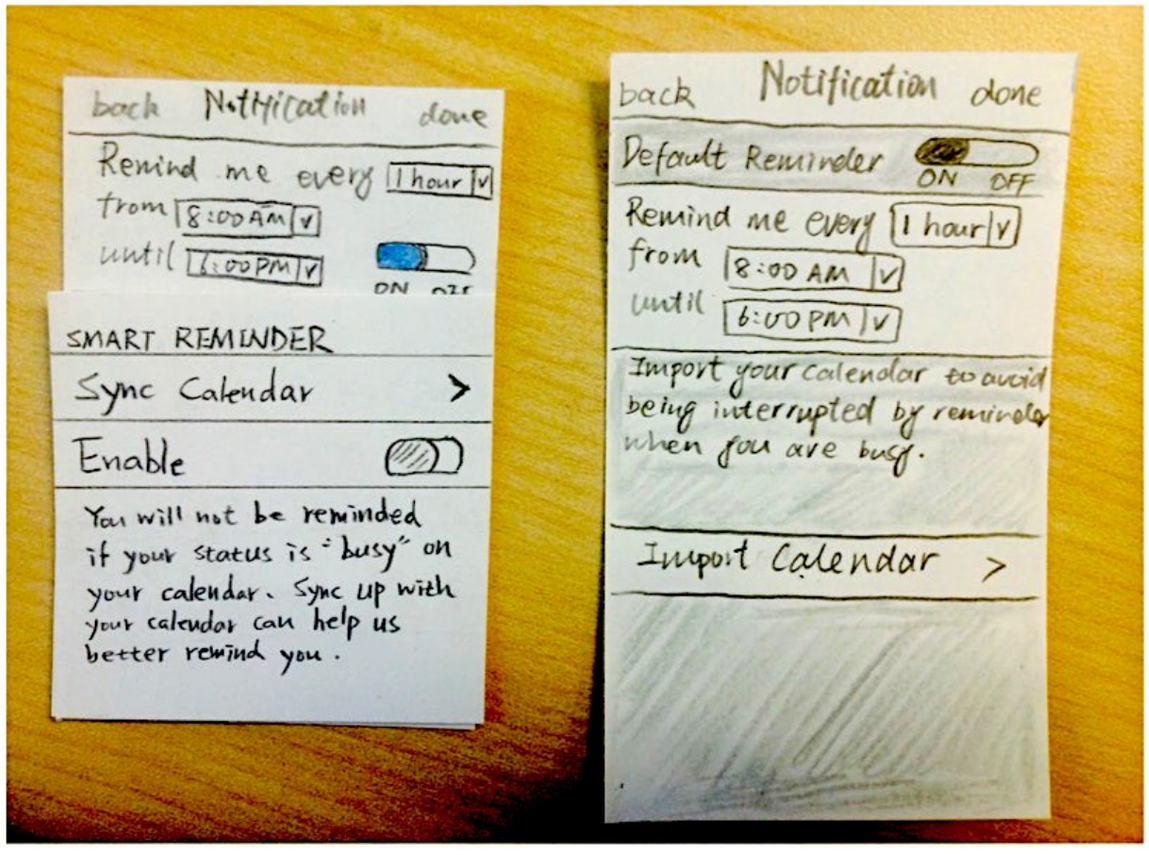
Usability Testing

- Purpose of syncing calendar unclear (Test 1)
- Unnecessary “back” and “done” buttons (Test 1)
- **Purpose of syncing calendar unclear (Test 2)**
- **Confusing default reminders with smart reminders (Test 2)**
- Confused about menu bar (Test 3)
- Reminder settings page too cluttered (Test 3)

Testing Process and Results

Refinements after Usability Testing 2

Purpose of syncing calendar (still) unclear



Confusing default reminders with smart reminders

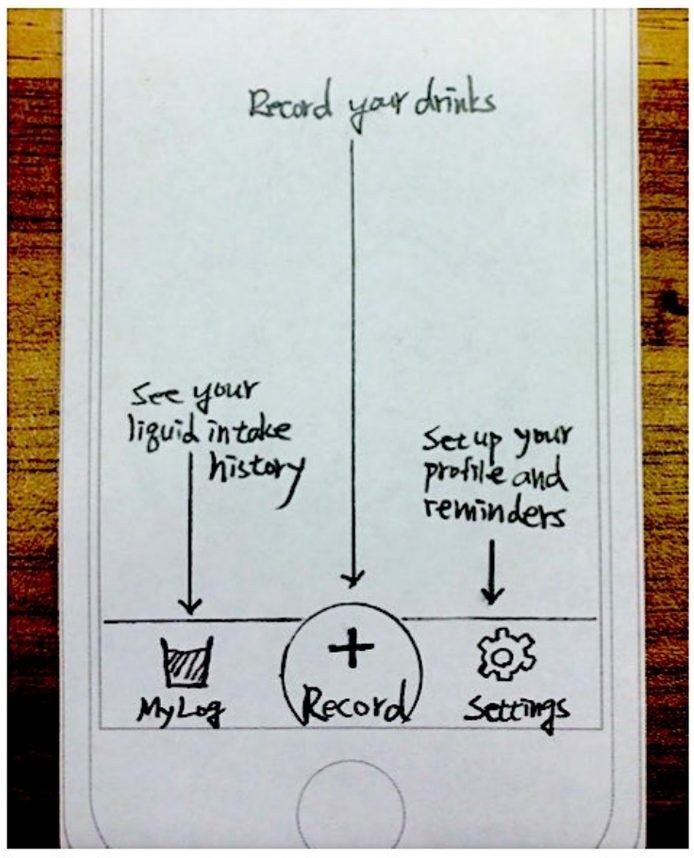
Usability Testing

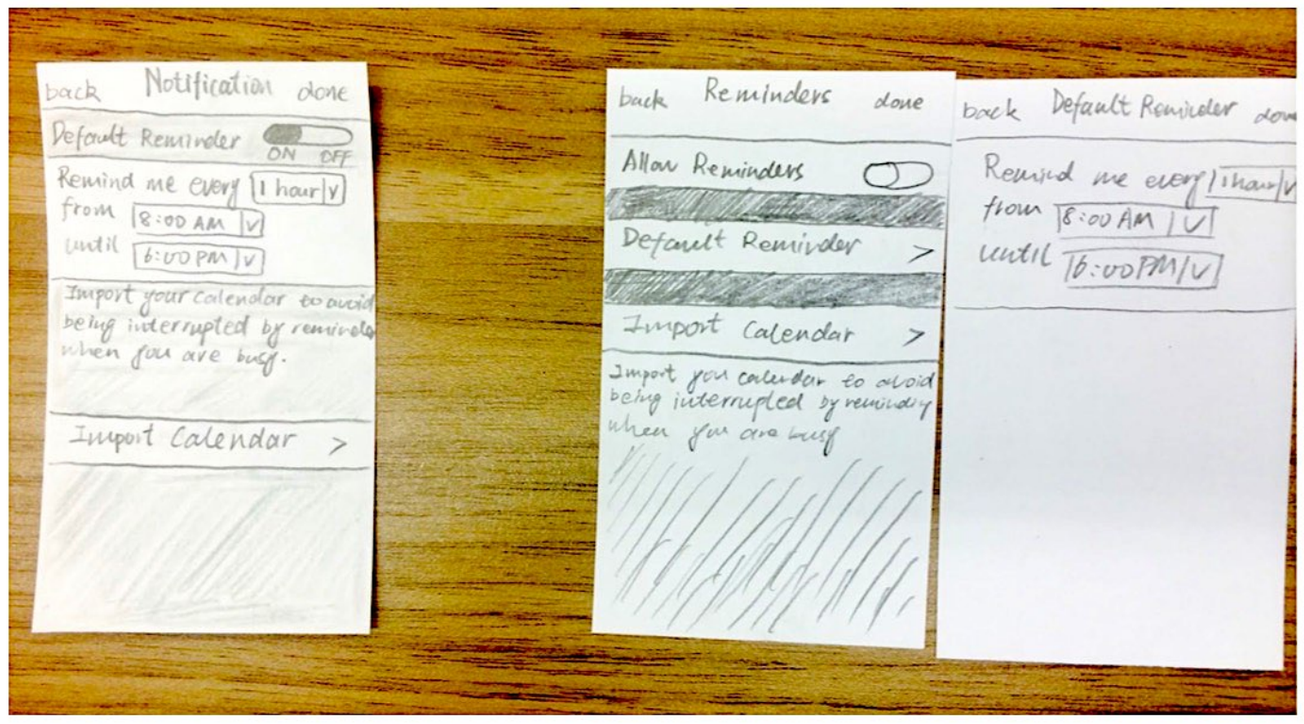
- Purpose of syncing calendar unclear (Test 1)
- Unnecessary “back” and “done” buttons (Test 1)
- Purpose of syncing calendar unclear (Test 2)
- Confusing default reminders with smart reminders (Test 2)
- **Confused about menu bar (Test 3)**
- **Reminder settings page too cluttered (Test 3)**

Testing Process and Results

Refinements after Usability Testing 3

Confused about menu bar

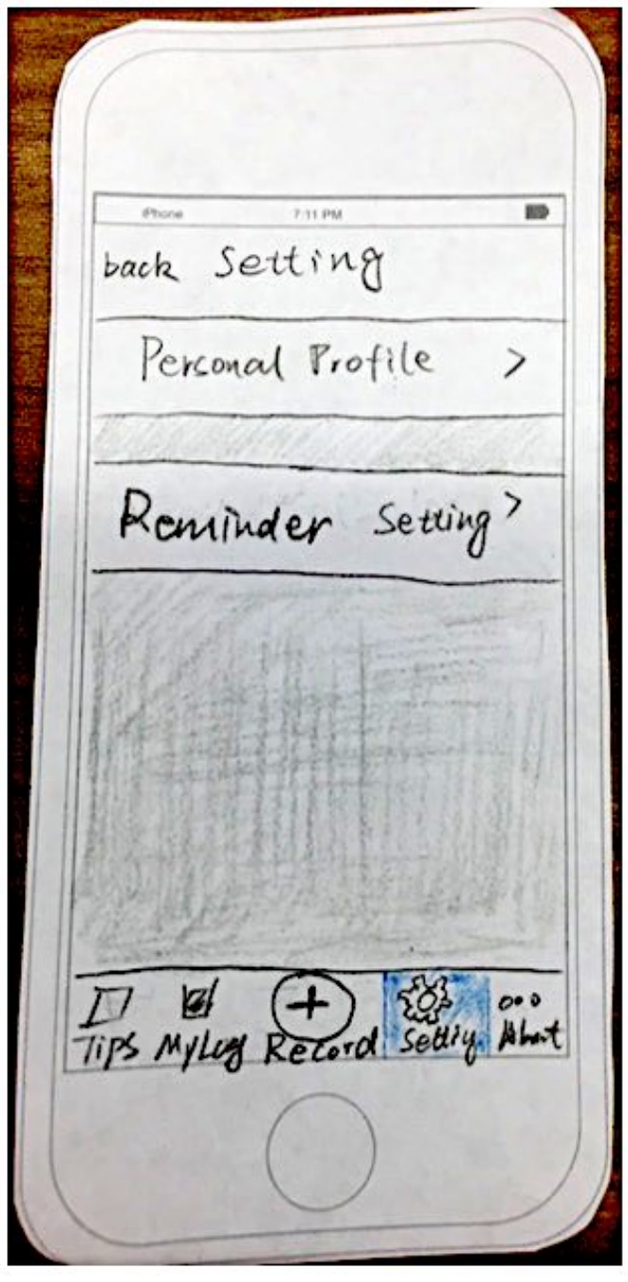


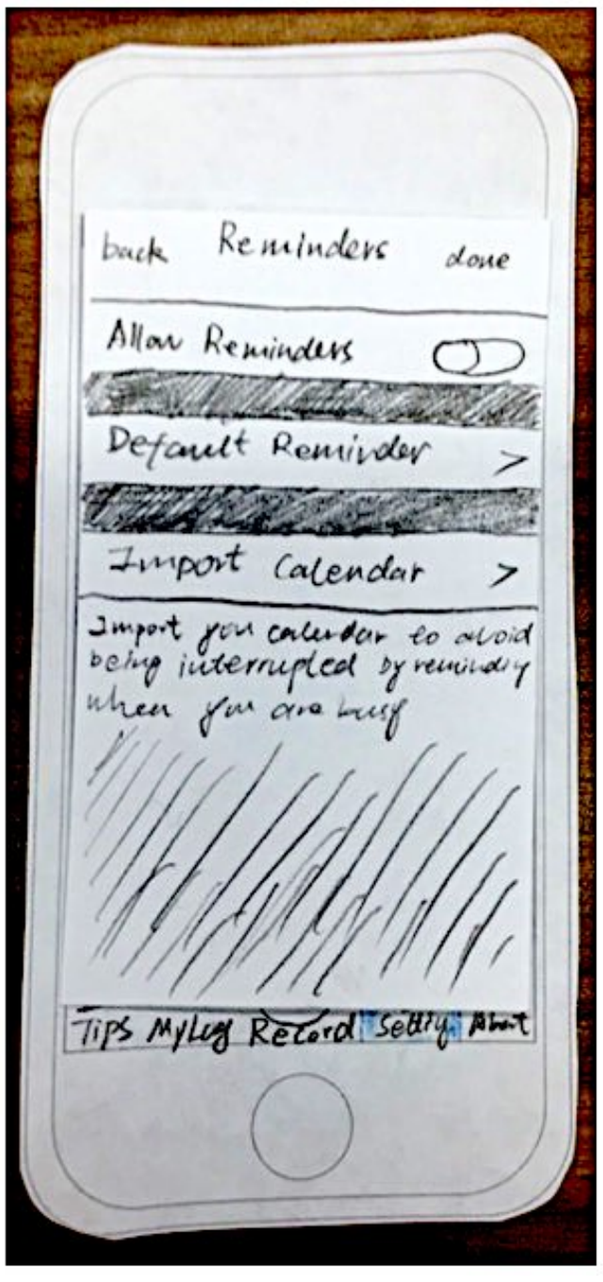


Reminder settings page too cluttered

Final Paper Prototype

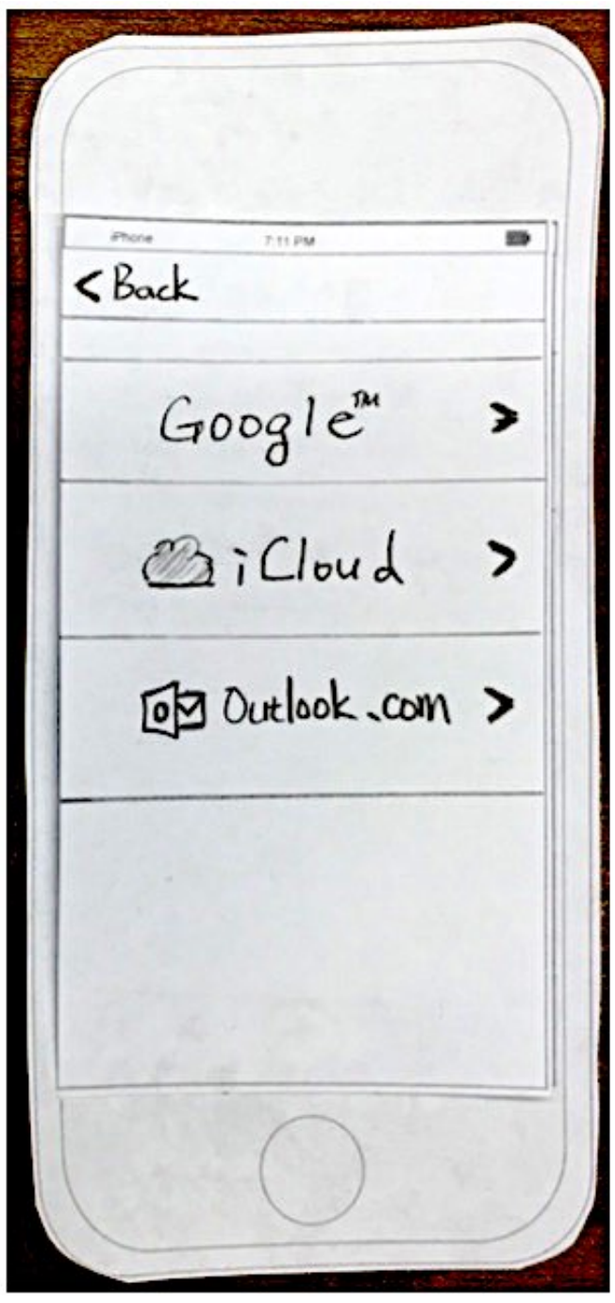
Task1 - Set Up Smart Reminders (1/2)

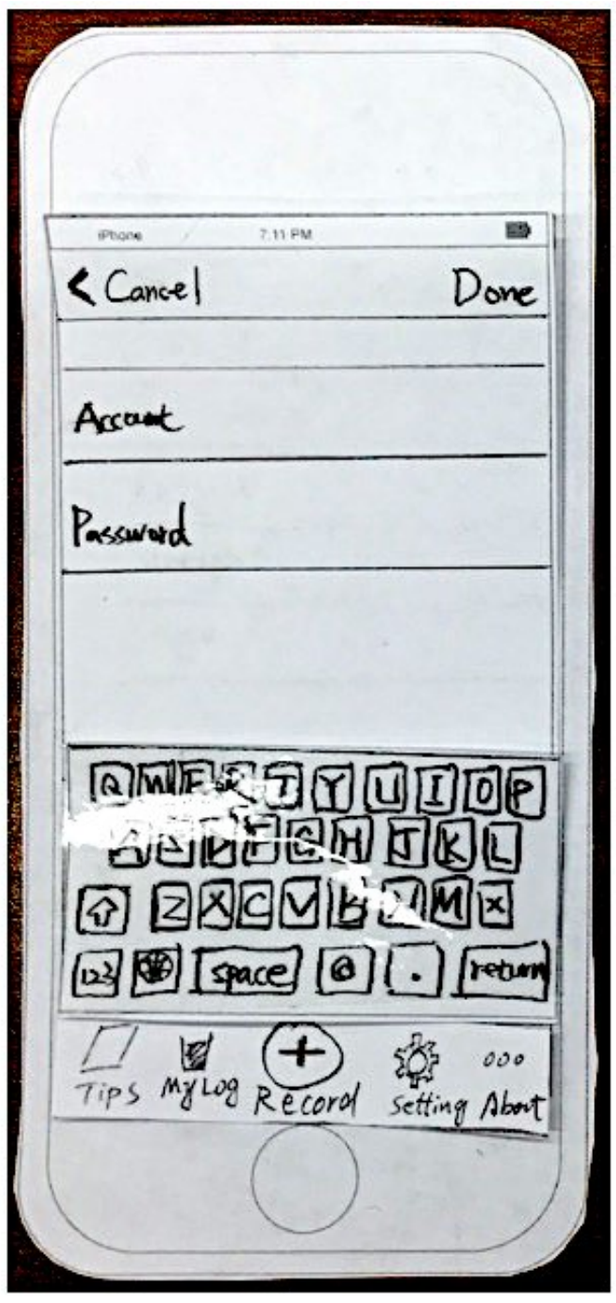


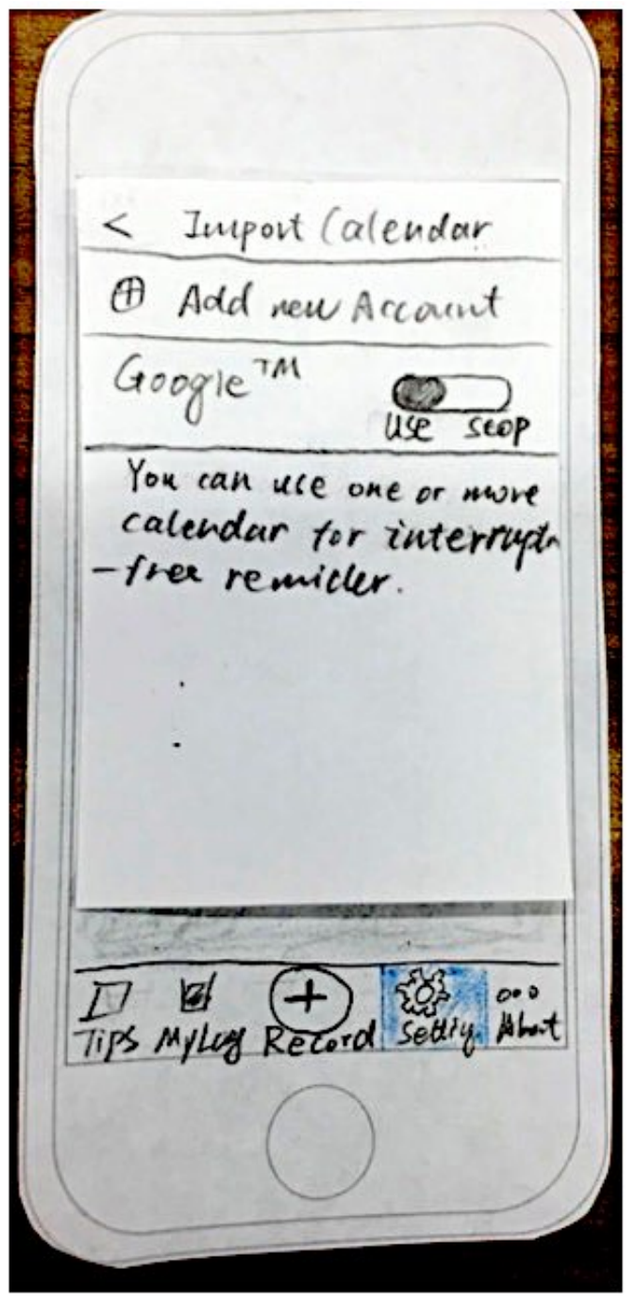


Final Paper Prototype

Task1 - Set Up Smart Reminders (2/2)

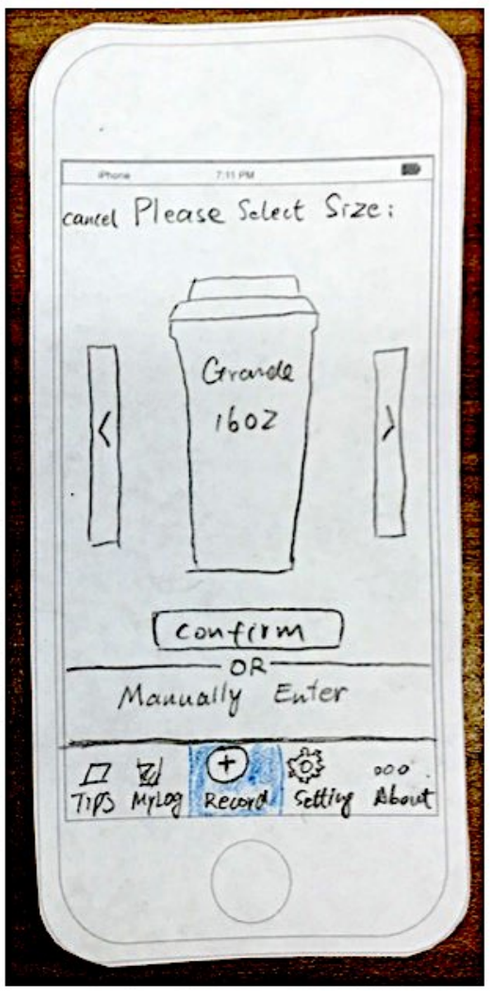


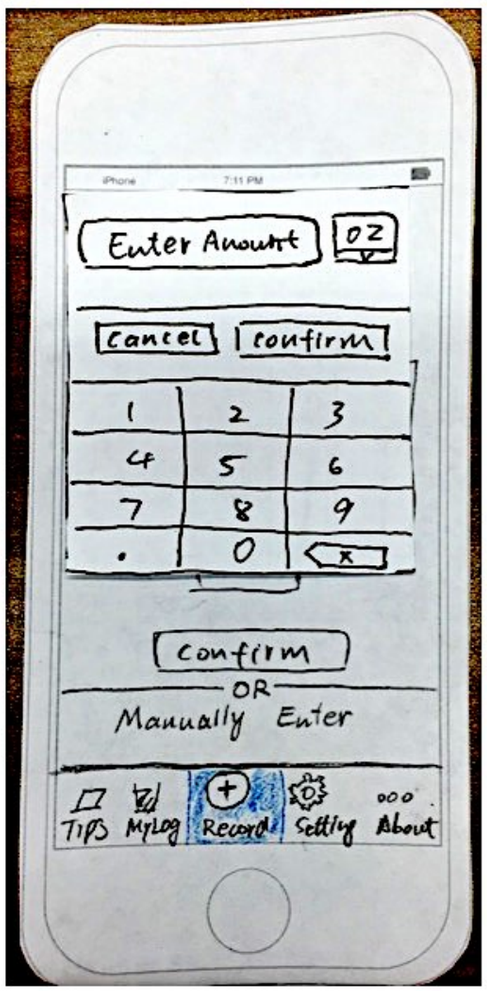


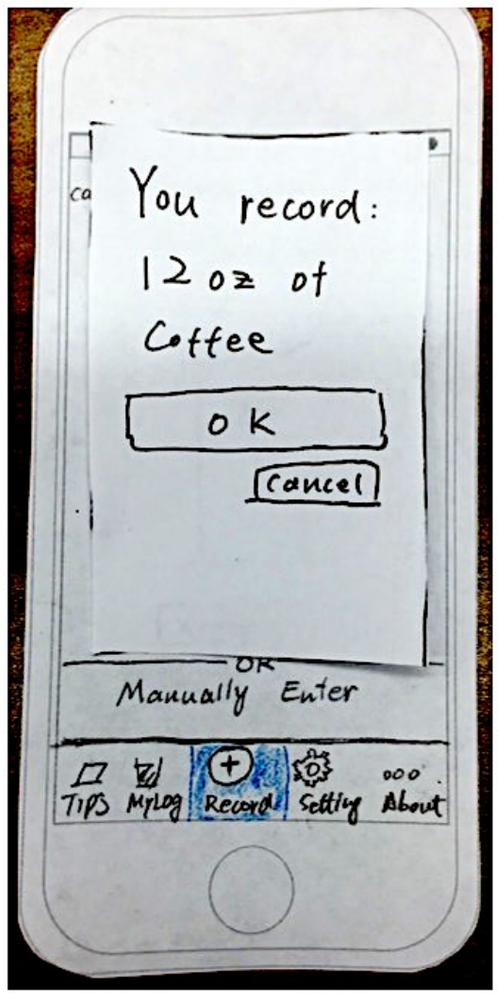


Final Paper Prototype

Task2 - Record Water Intake

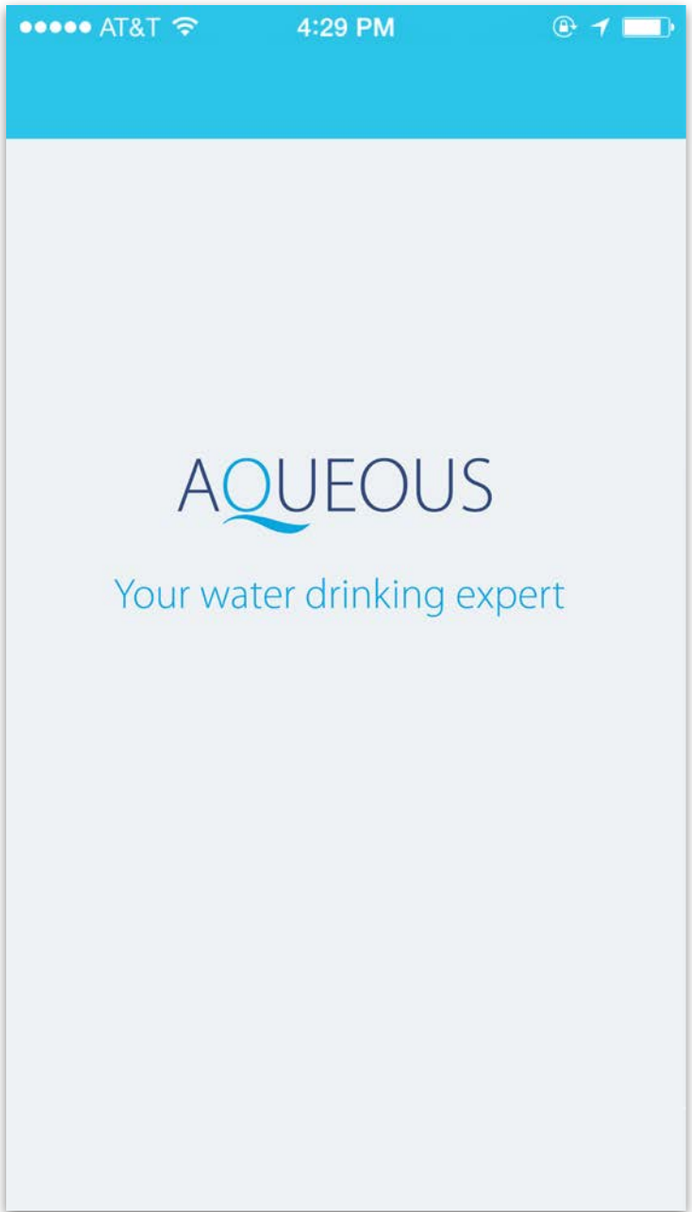


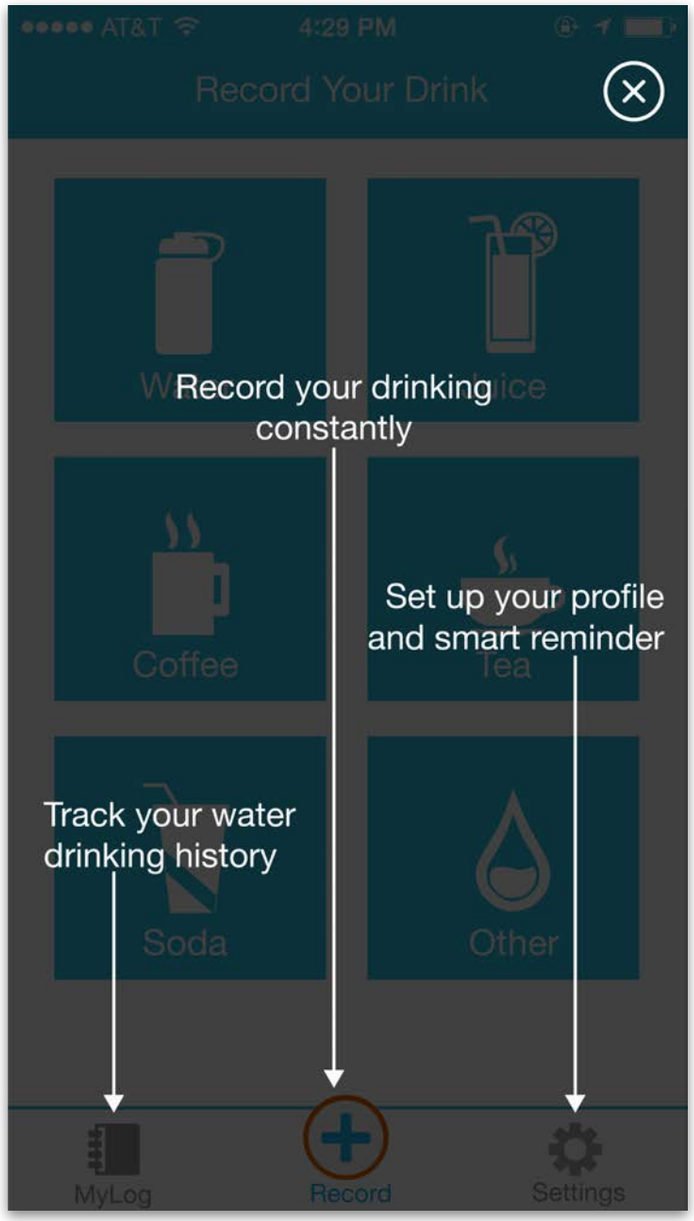




Digital Mockup

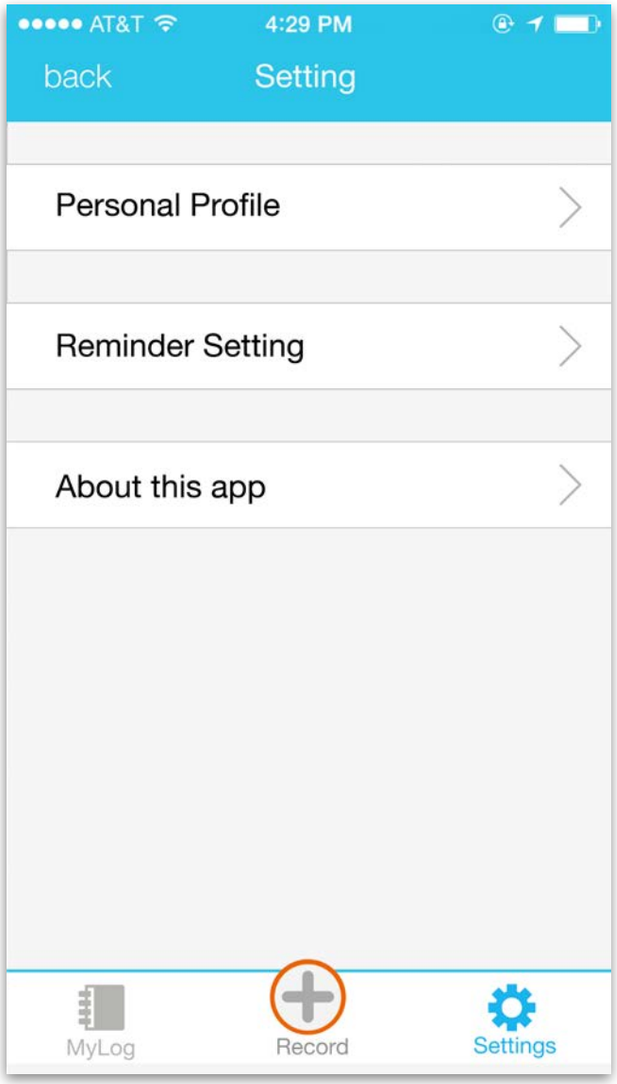
Task0 - Application Introduction

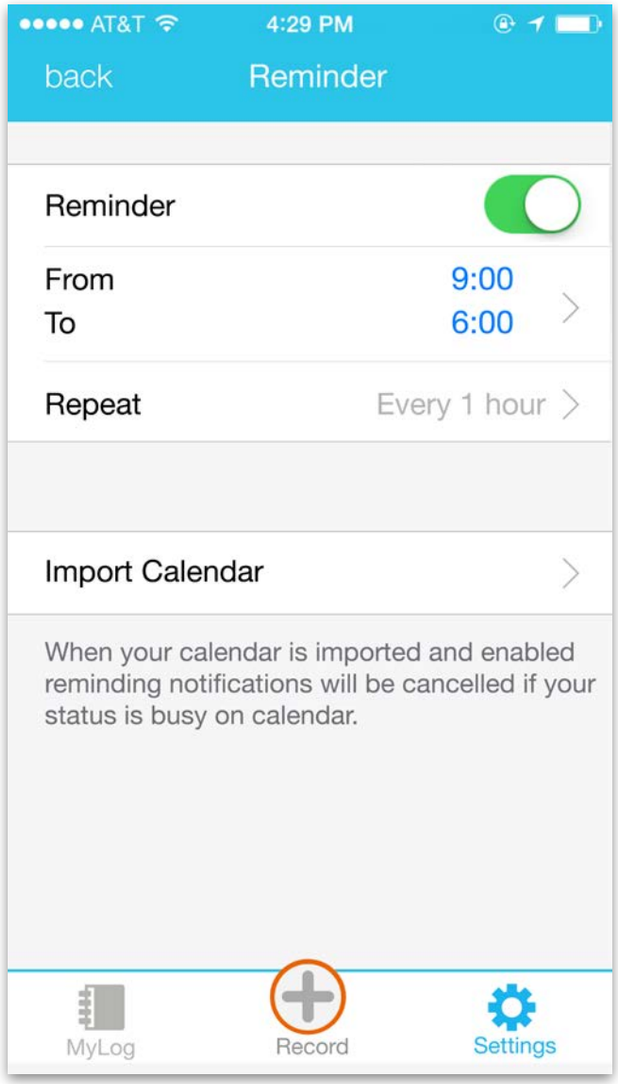


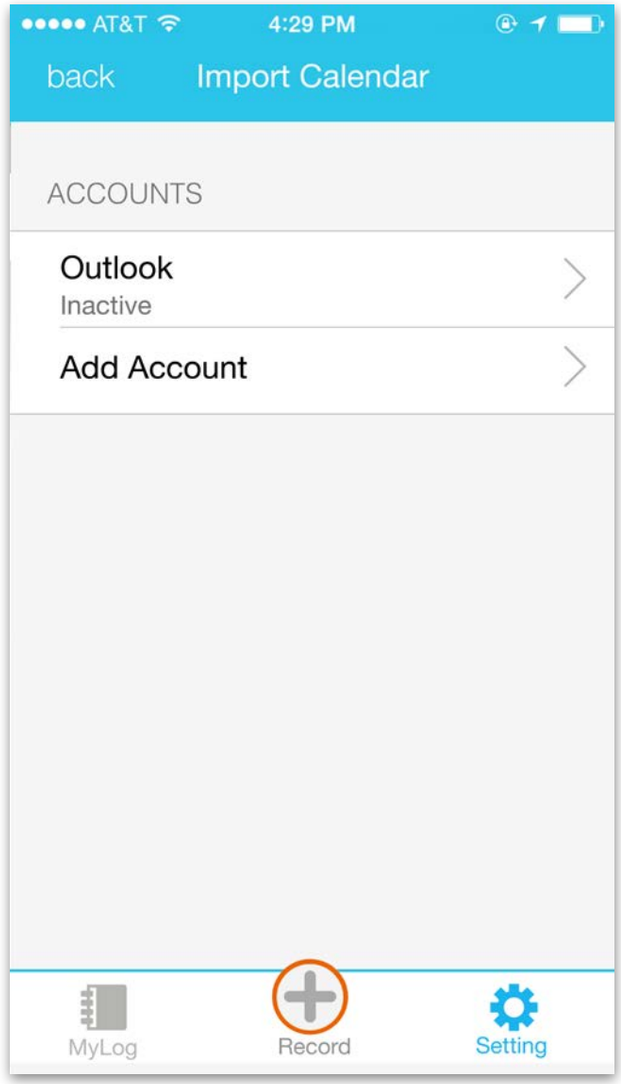


Digital Mockup

Task1 - Set Up Smart Reminders (1/2)

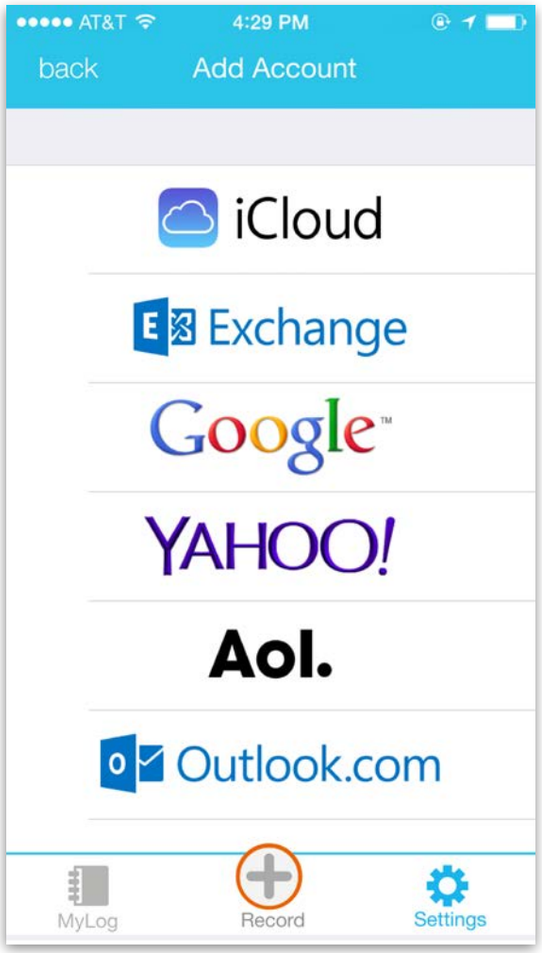


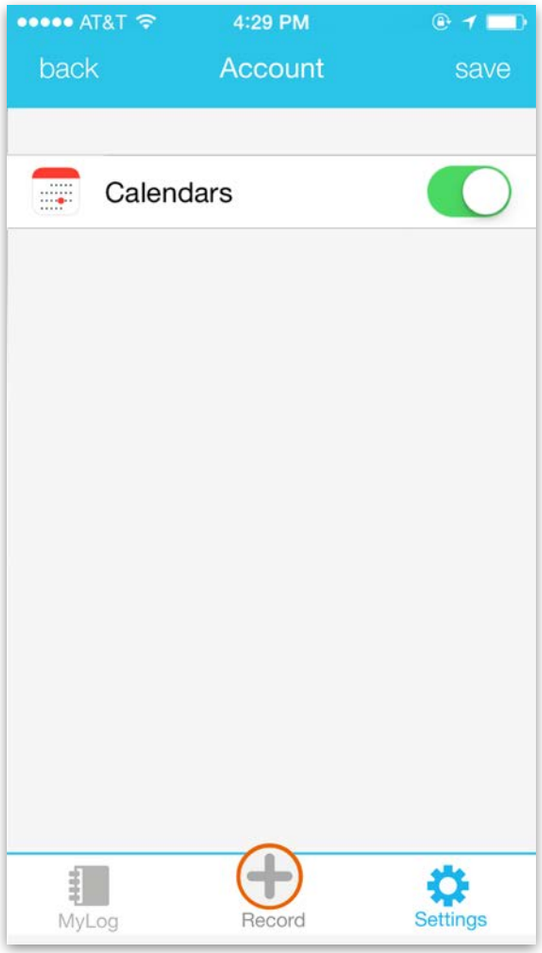


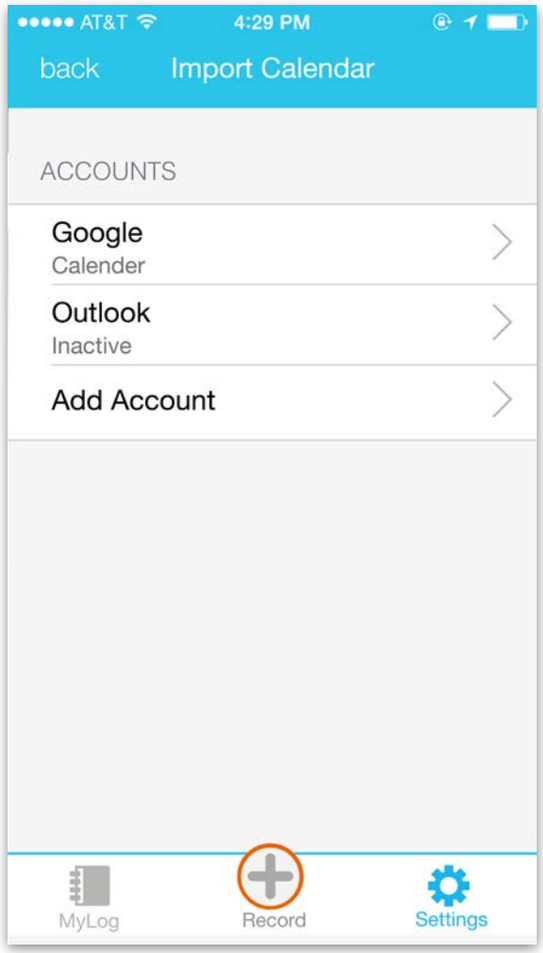


Digital Mockup

Task1 - Set Up Smart Reminders (2/2)

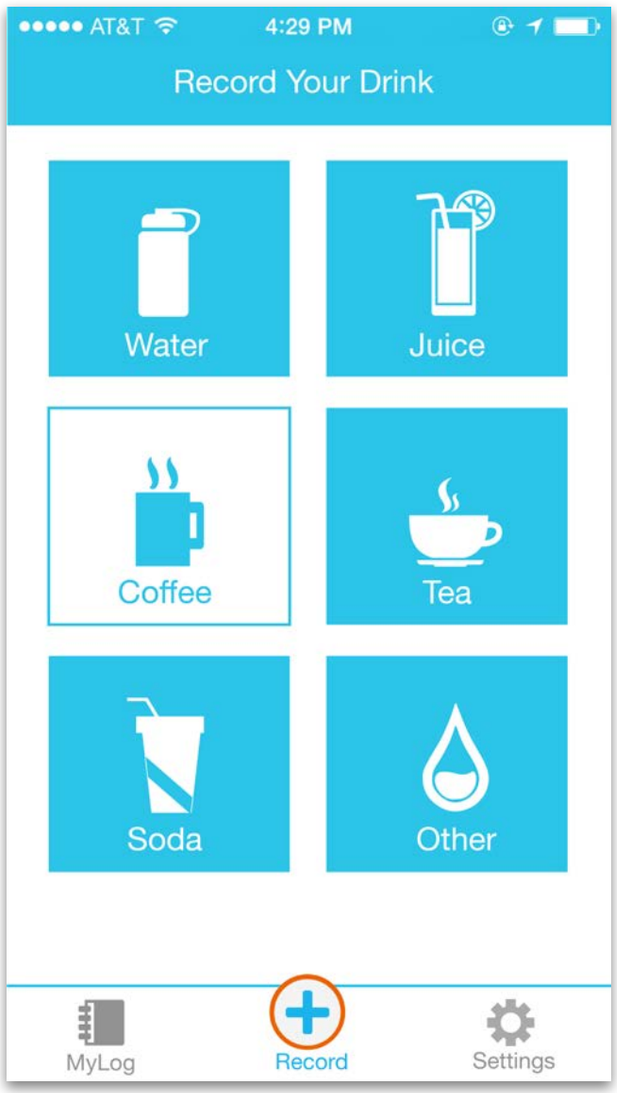






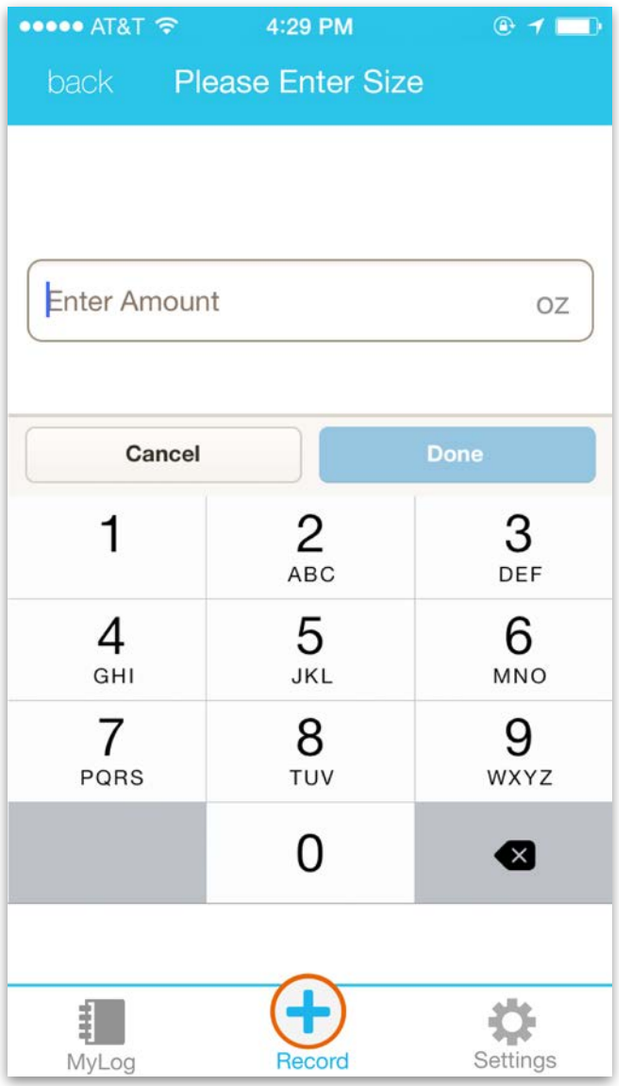
Digital Mockup

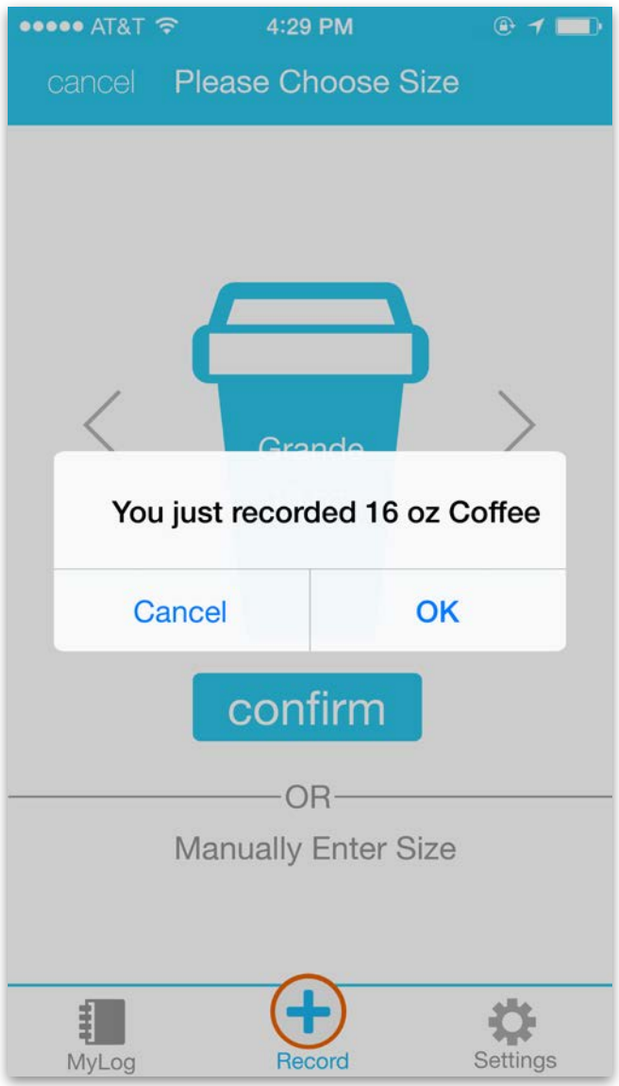
Task2 - Record Water Intake (1/3)

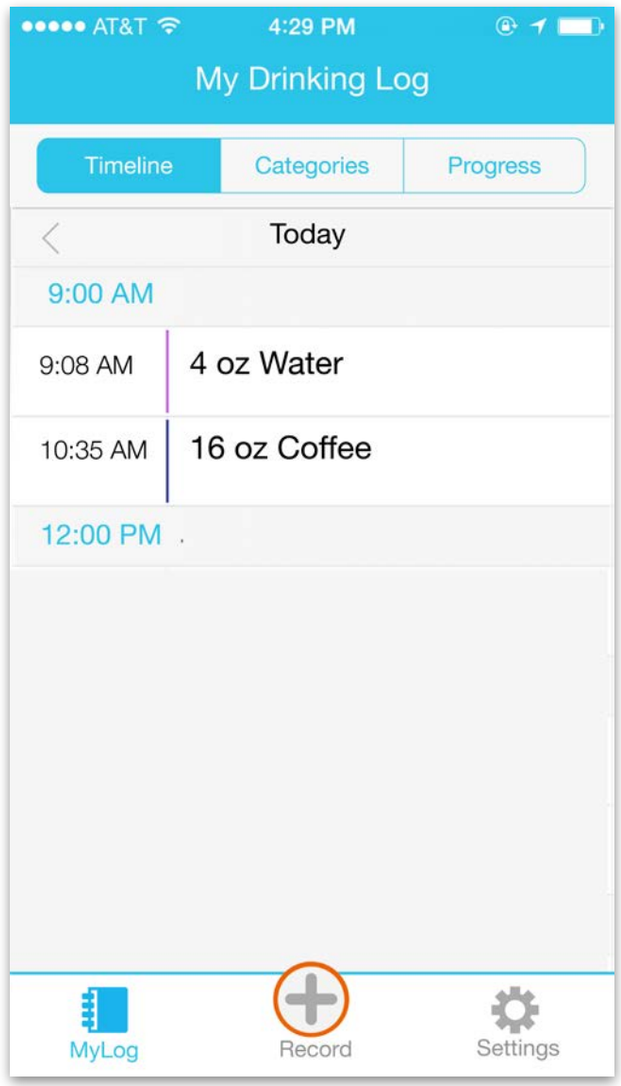


Digital Mockup

Task2 - Record Water Intake (2/3)

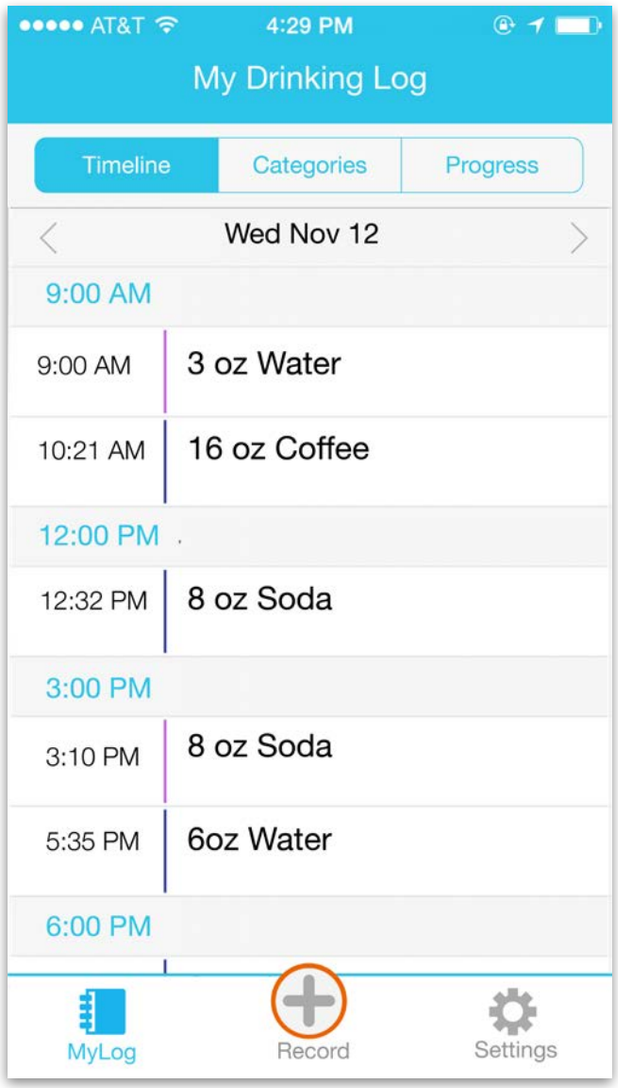


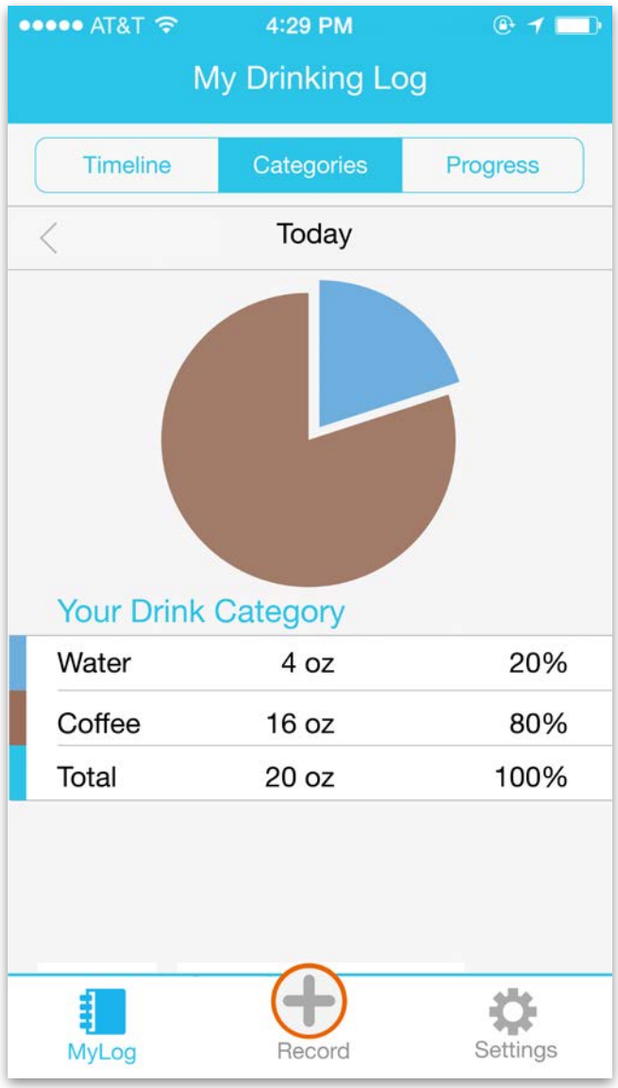


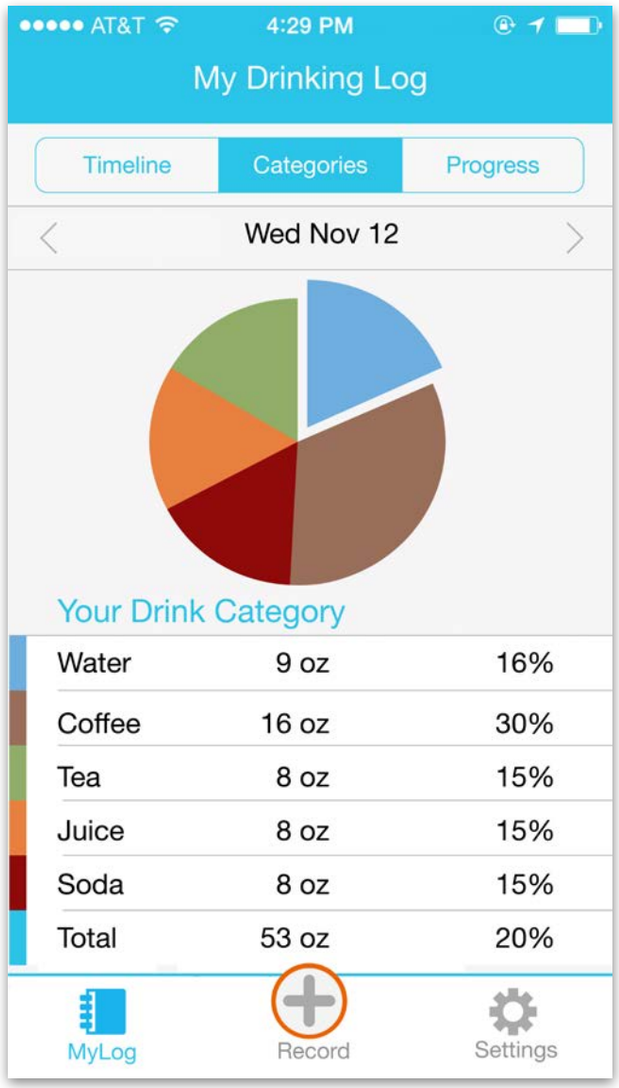


Digital Mockup

Task2 - Record Water Intake (3/3)







Summary

- Iterative design is very effective and powerful
- The initial design is always not the best design
- It is important to get reliable feedback from users
- Users WILL NOT always understand your design

AQUEOUS

Thank you!

Questions?

UNIVERSITY OF WASHINGTON

University of Washington Computer Science & Engineering

HCDE Human Centered Design & Engineering University of Washington

MHCI+D human-computer interaction + design