Creating Great Mobile Apps

Professor Larry Heimann
Carnegie Mellon University
67-443: Mobile Application Design & Development

A couple of business items…

INTERACTION

What is *design* really about?

TRADEOFFS

So what makes a great mobile app?

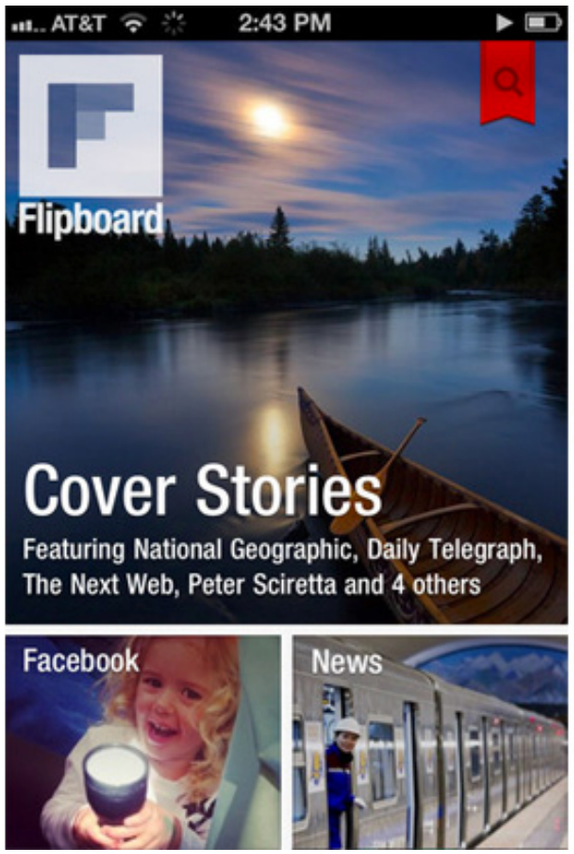
Understanding the mobile mental model

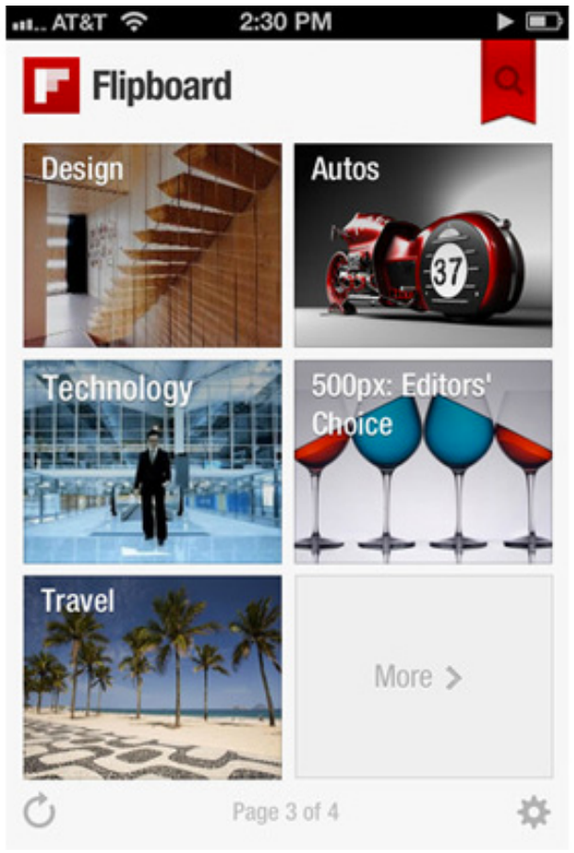
- “I’m micro-tasking.”
- “I’m local.”
- “I’m bored.”

Play To The Strengths Of Mobile

- Communications
- Spontaneous
- Geo-sensitive
- Short periods of use
- Focused activity
- Form-factor/size limitations

Making intuitive apps





Finding the right project idea

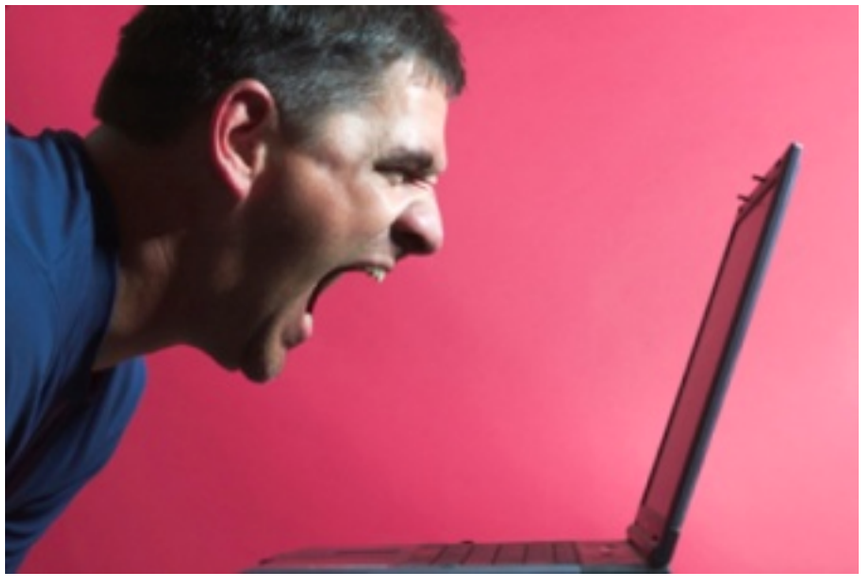
Blue Ocean Innovation

Winning by creating an
uncontested market space
and making the competition
irrelevant

“Red Ocean” versus “Blue Ocean”

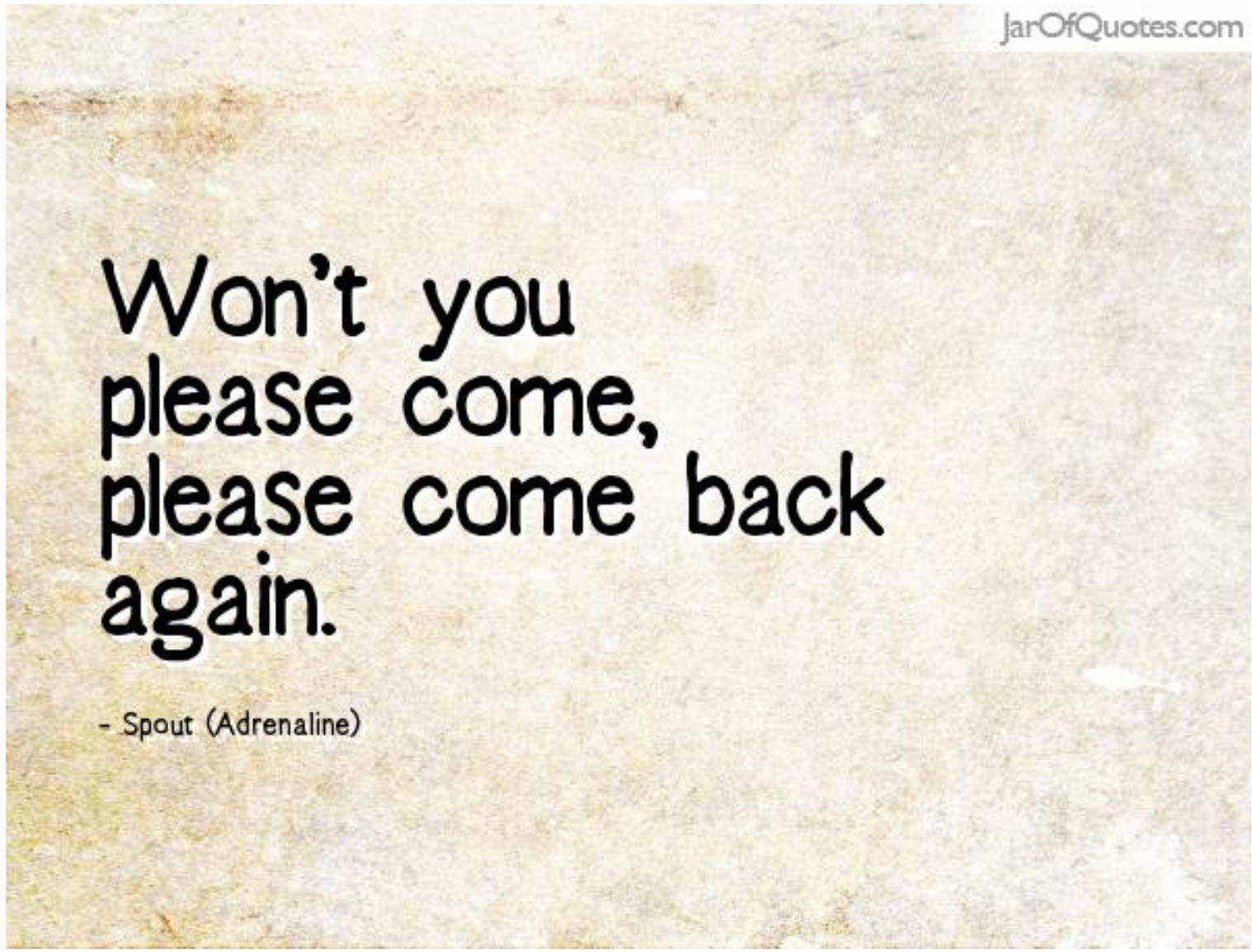
Red Ocean Strategy	Blue Ocean Strategy
Compete in existing market space	Create uncontested market space
Beat the competition	Make the competition irrelevent
Exploit existing demand	Create and capture new demand
Make the value-cost trade-off	Break the value-cost trade-off
Align the whole system of a firm's activities with its strategic choice of differentiation ***or*** low cost	Align the whole system of a firm's activities in pursuit of differentiation ***and*** low cost

Solving a pain point

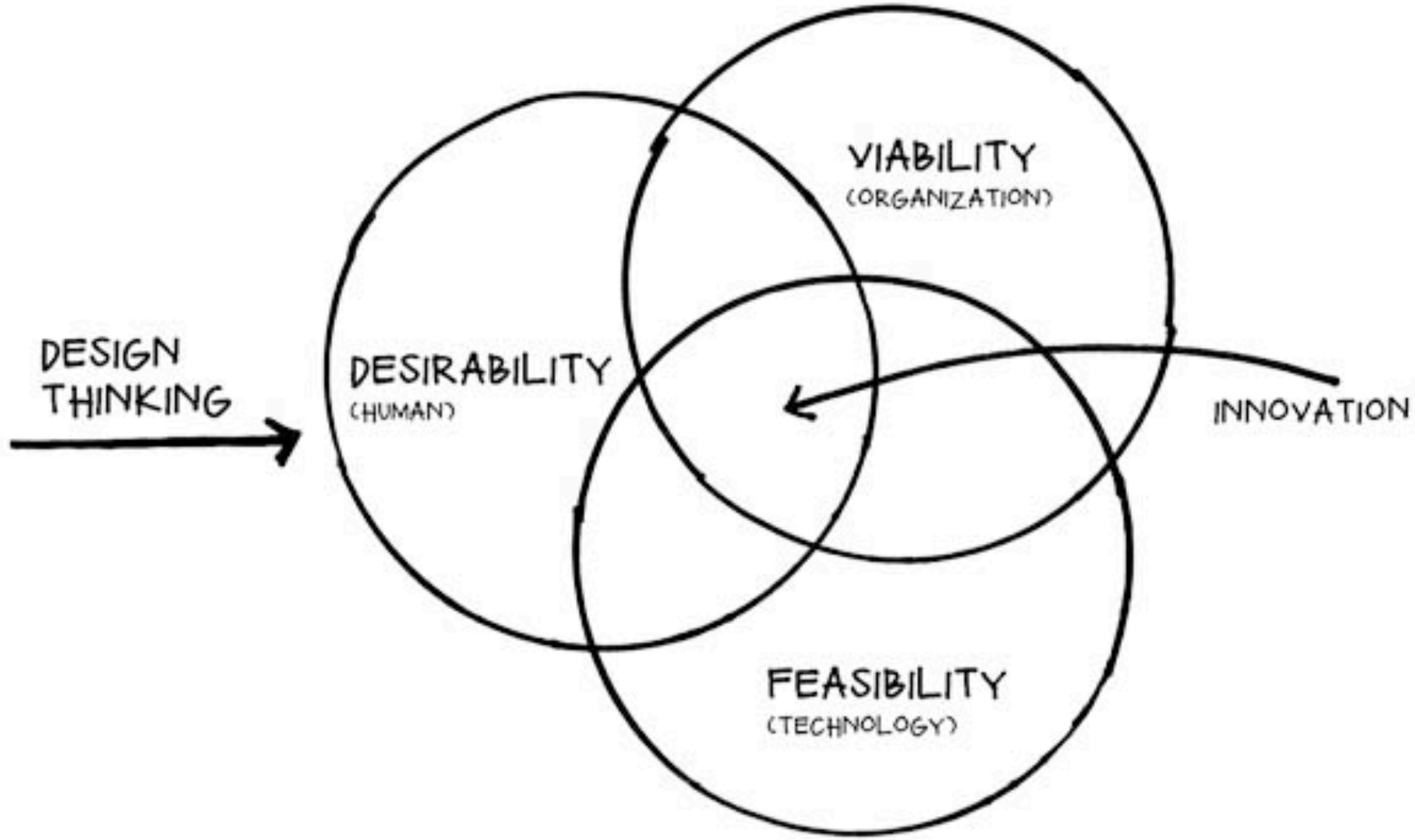


Seeking an audience

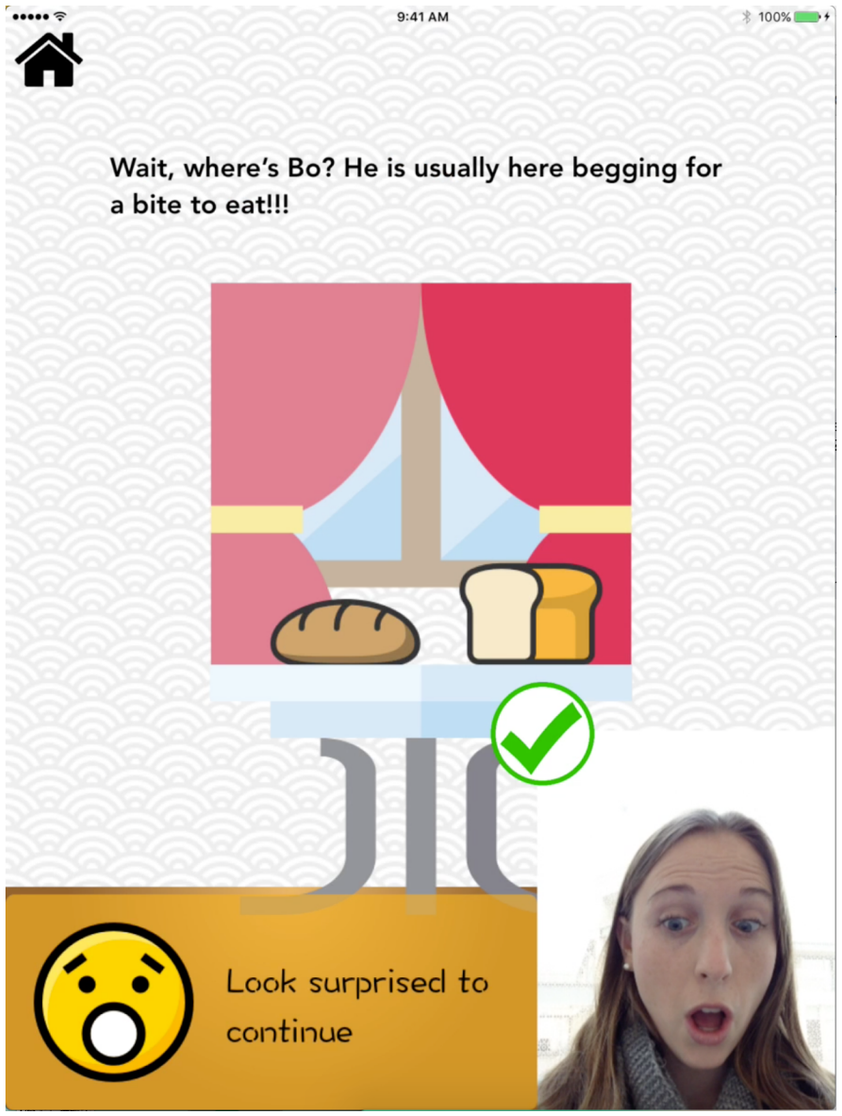
What is your app's "life span"?



Desirability—Feasibility—Viability Framework



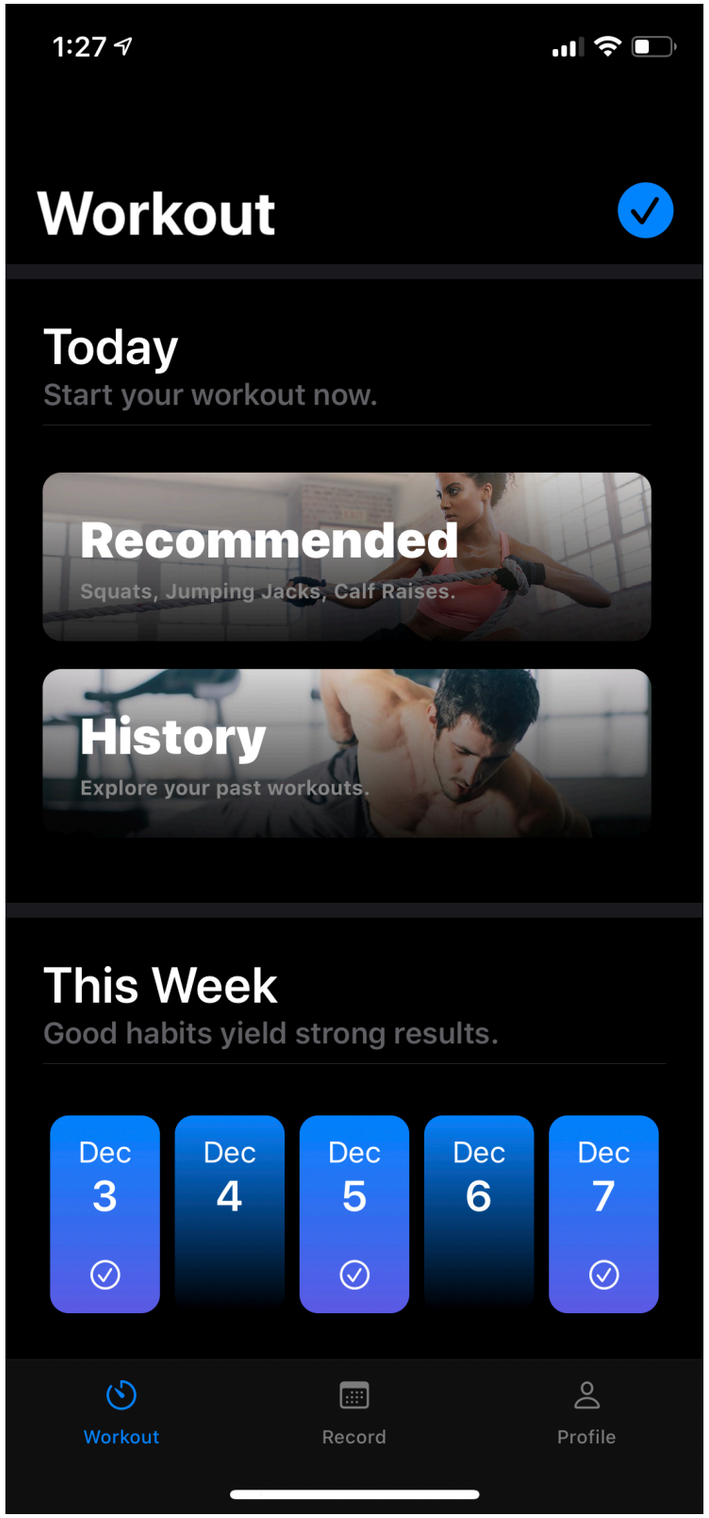
Looking at one past project in more detail

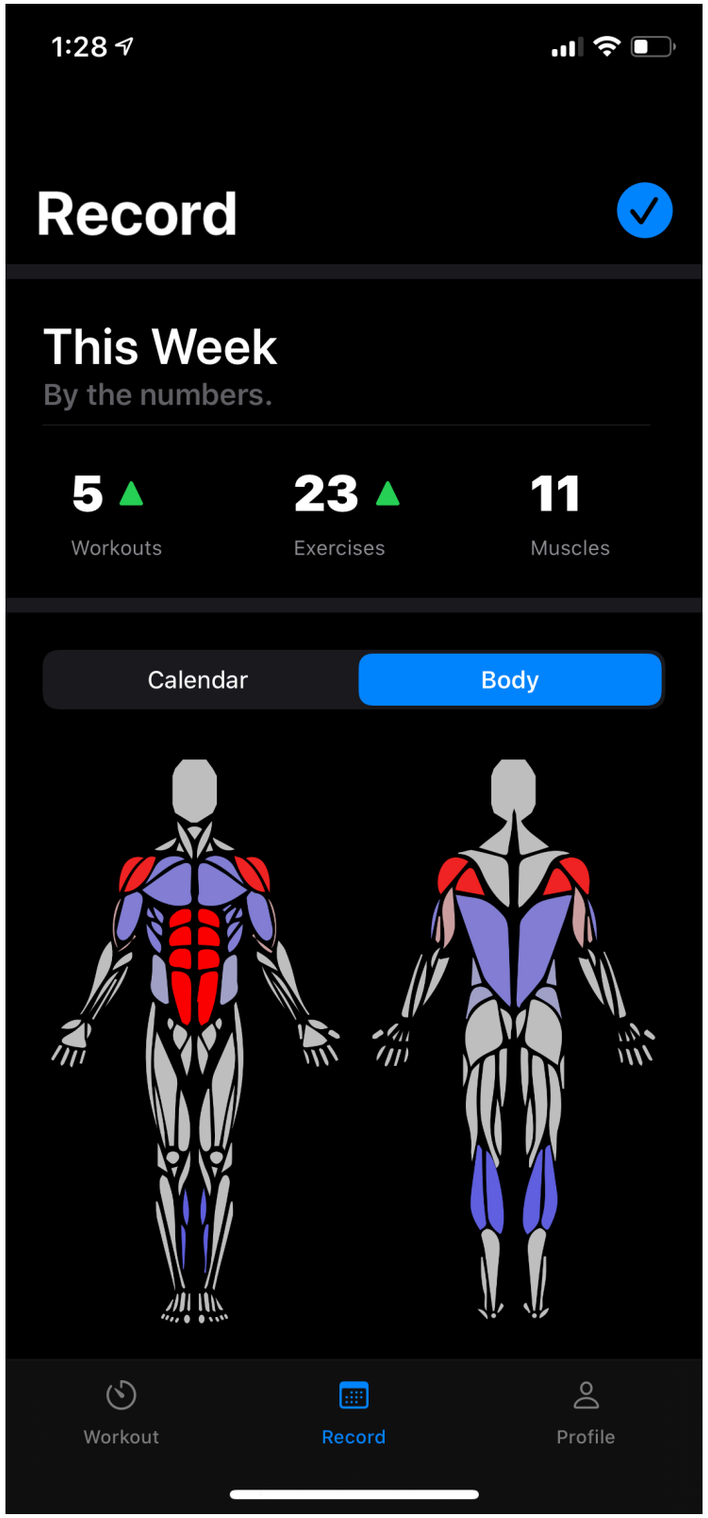


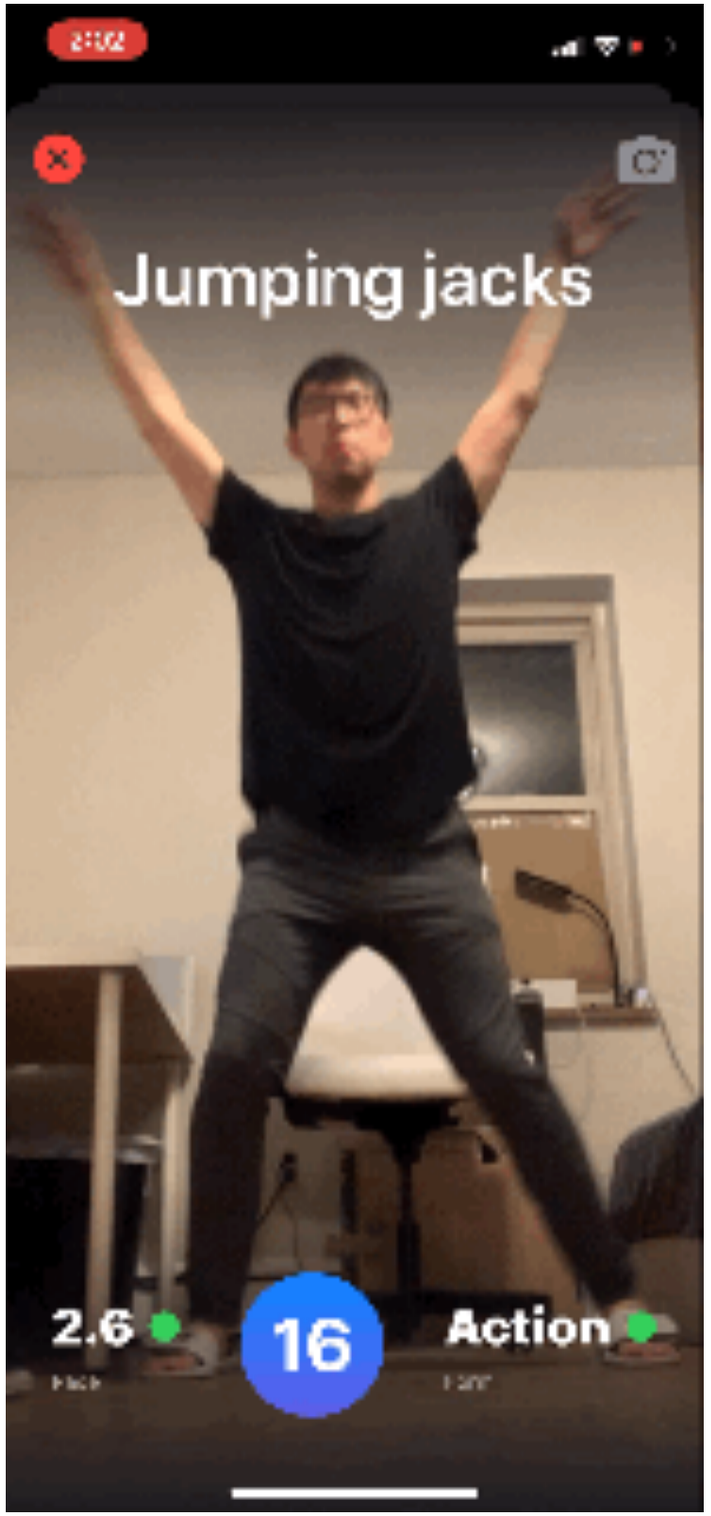
Emote

Becca Kern &
Natalya Buchwald

Other past class apps

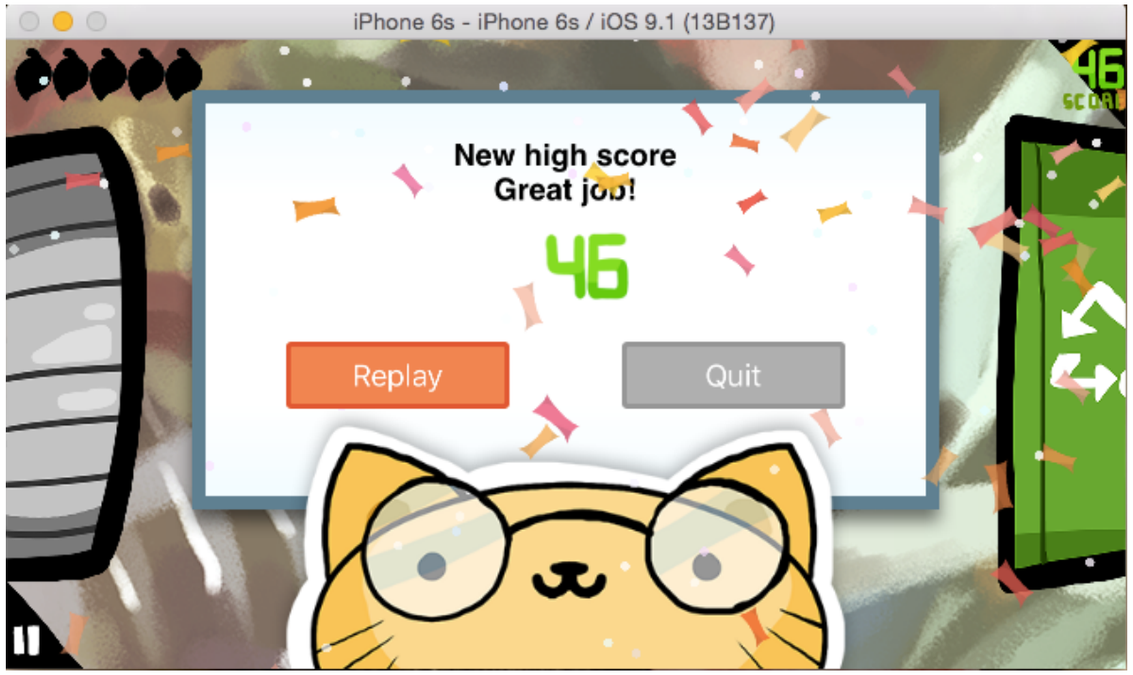


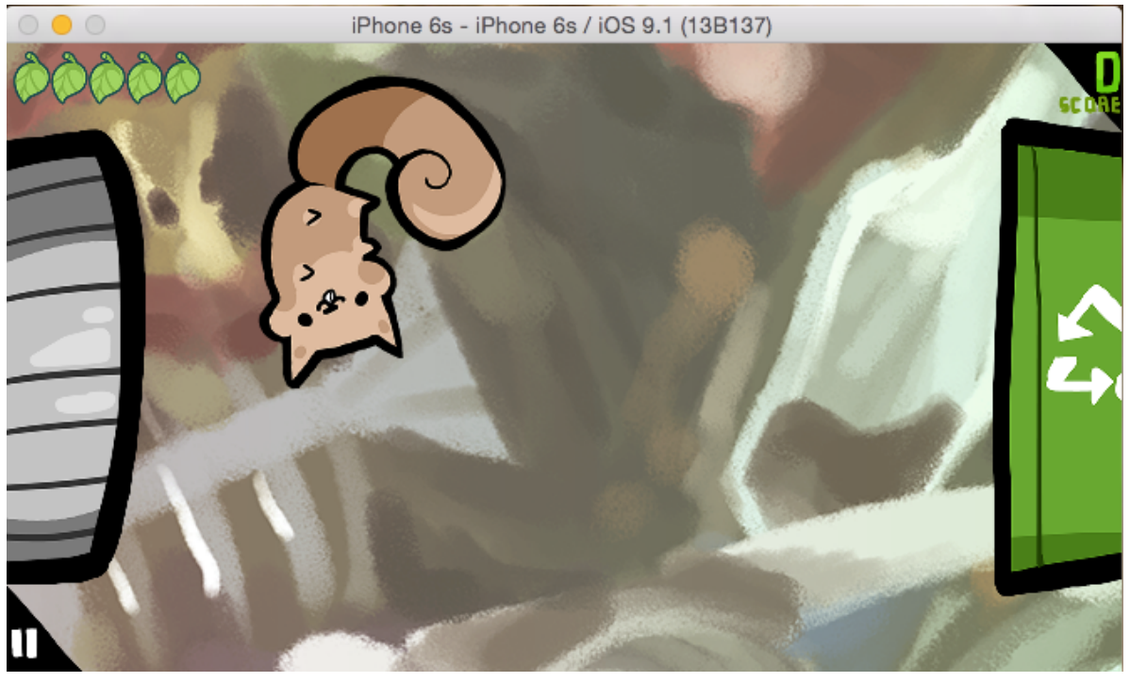


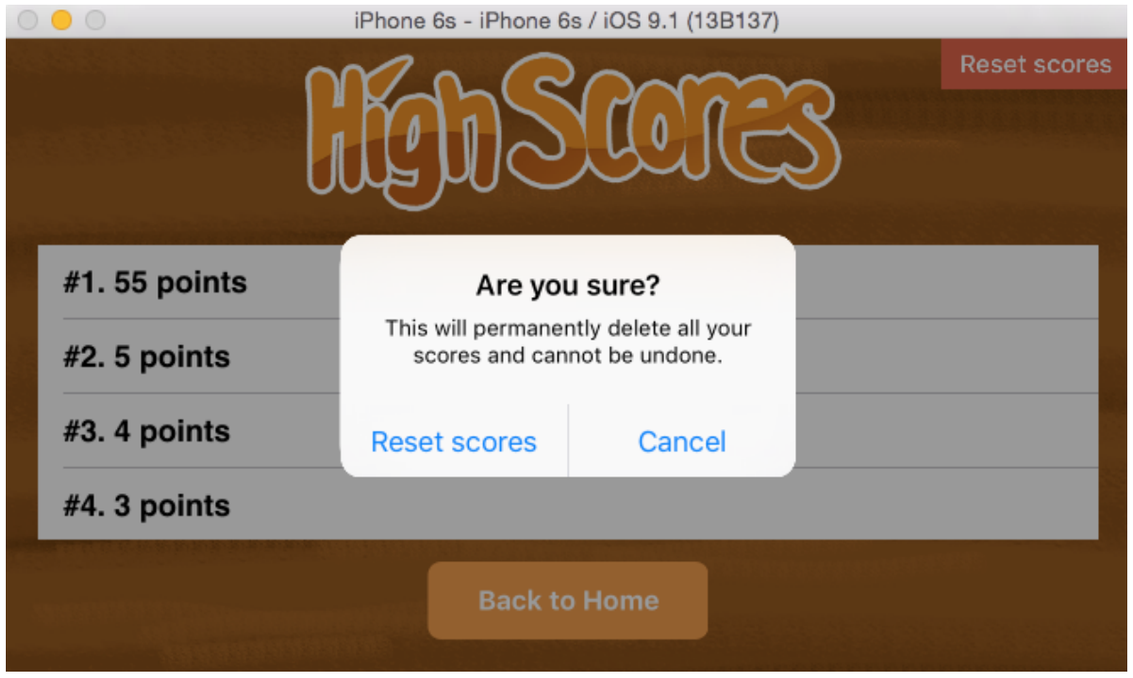


Fitnetic

Calvin Liu
Wilson Yu
Christina Chou

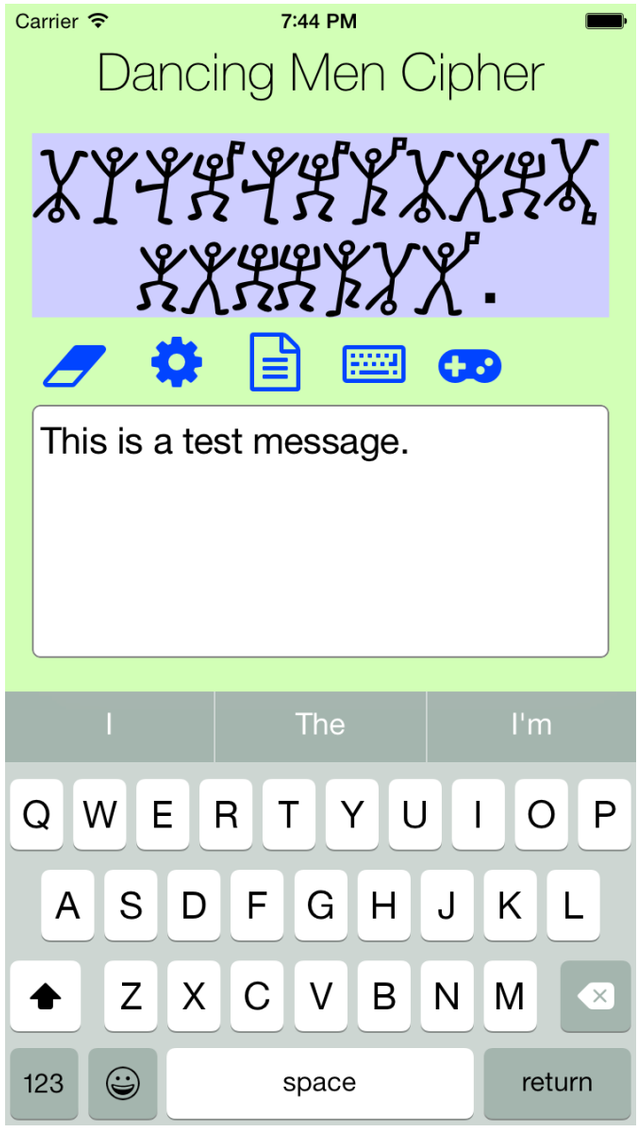


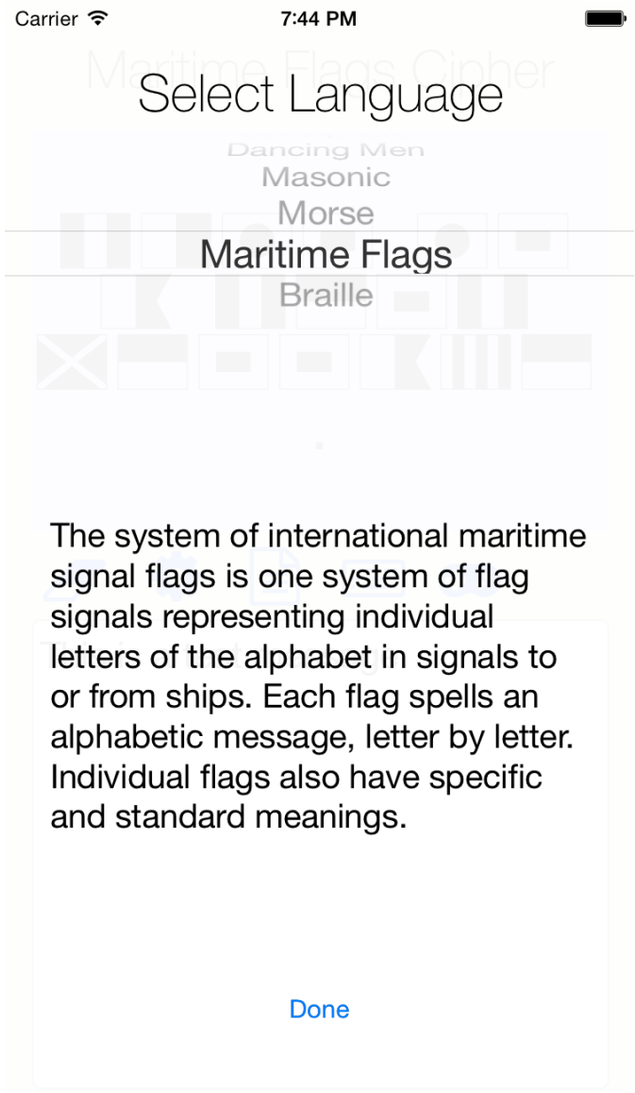


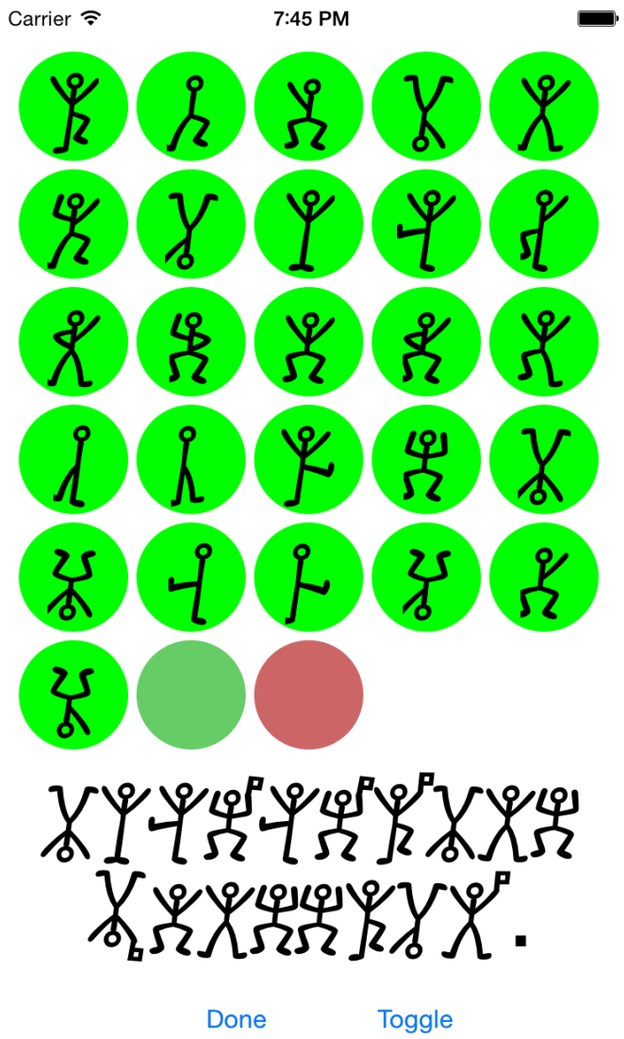


EcoCarnival

Angela M. Liu





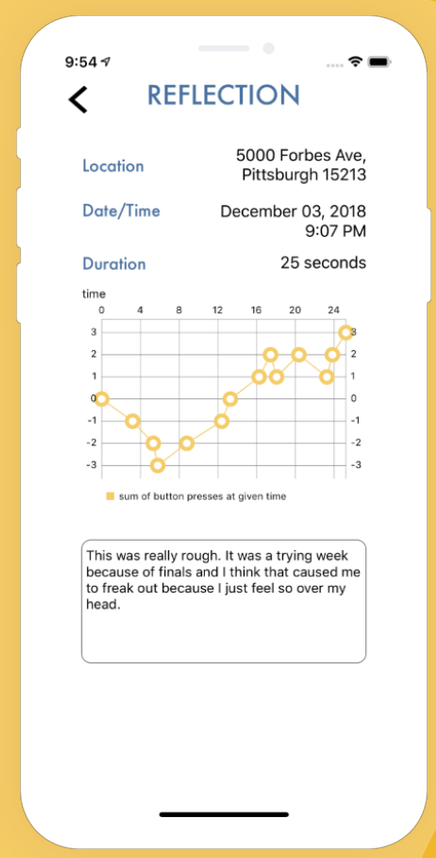


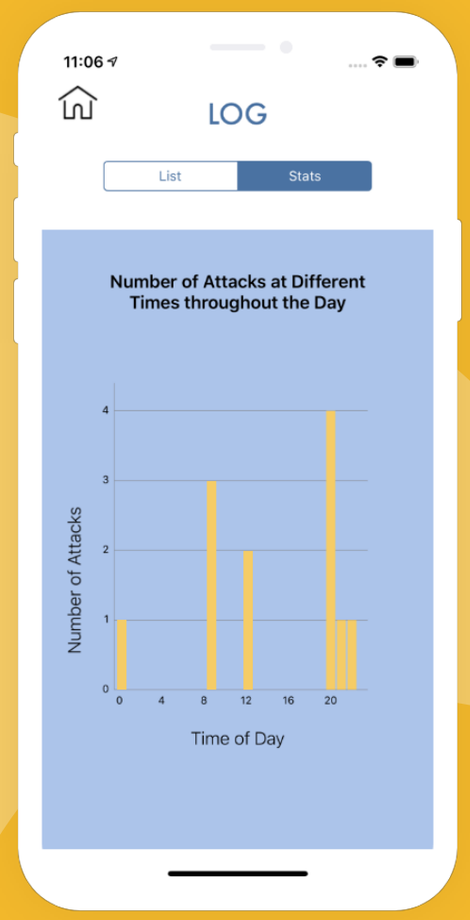
dancingmen

Melanie Freeman

lighthouse

alina yu
shirley zhou





lighthouse helps people who experience panic attacks to better endure, track, and manage their attacks. Not only does lighthouse provide methods to aid you during an attack, such as sending your location to friends and family and offering encouraging affirmations, it also equips you to face, overcome, and prevent future attacks. This app takes the data from an episode and provides unique patterns and trends on what your attacks are like, where and when they commonly happen, and what causes them. lighthouse is here to guide you, and help make your way to safety.

Attendify

Attendance made easy

67-442

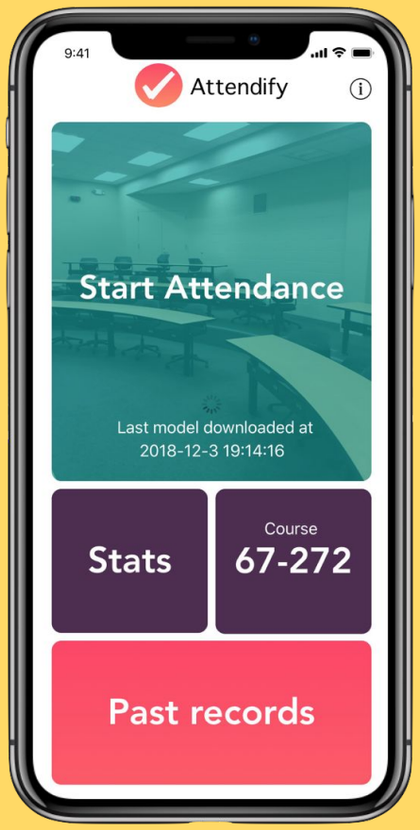
Arnav Gupta
George Yao

Attendify provides an easy way for professors to take and manage attendance of their courses. We seek to remove the sign up sheets and roll call methods that are time consuming and inefficient.

Attendance stats

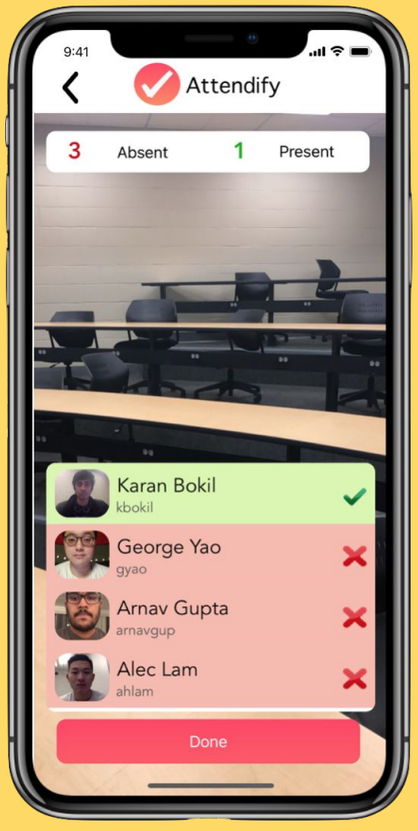
ML driven roll call

API integrations

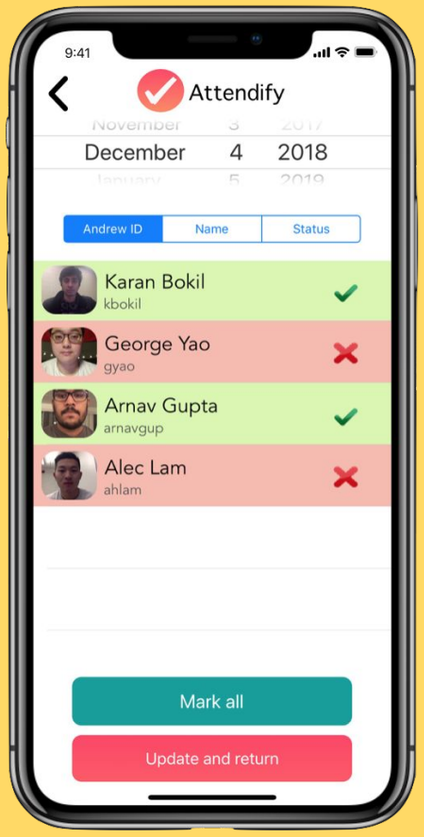


Intuitive home page

Real time stats



AR face recognition

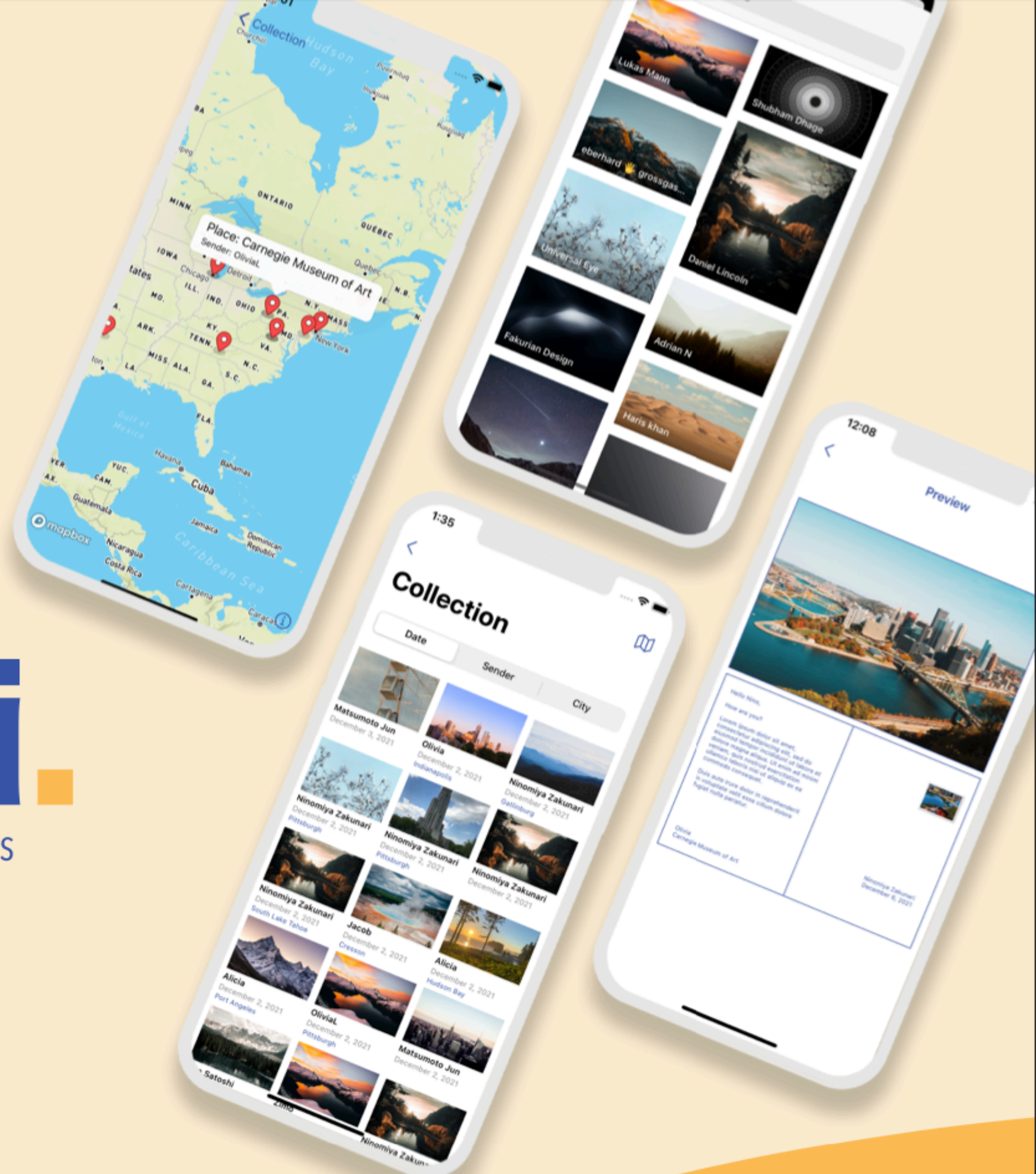


Easy lookup

Developed by
Olivia Liu
Tino Lyu
Zimo Yang

.Delti.

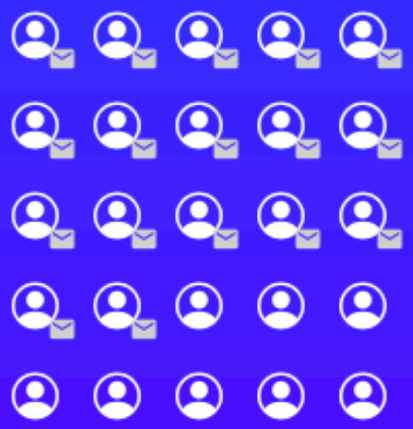
Delti is designed to let users personalize their postcards in an electronic format and send to their friends and family in a convenient way.



Event Management Simplified

The Problem

Managing event attendence can be a pain. Especially for busy college students, it can be hard to keep track of all the invitations you sent and check everyone in at the event efficiently.

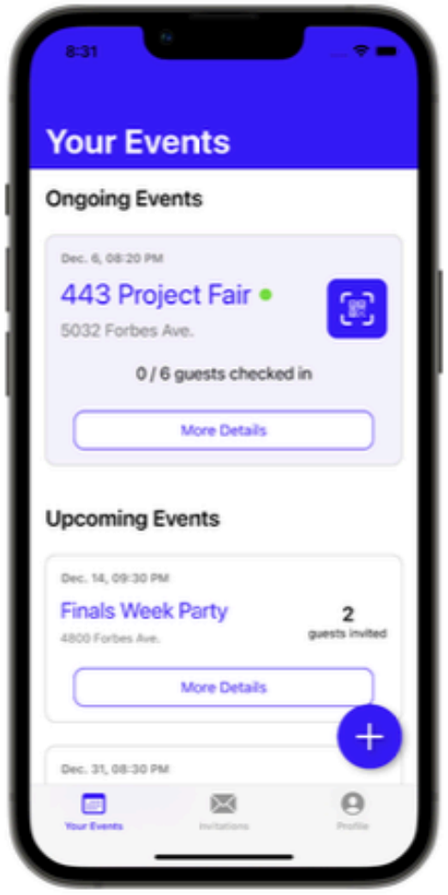


Our Solution

Bouncr streamlines the event management process by providing a platform to create events, keep track of invitations, and check-in guests at the door.

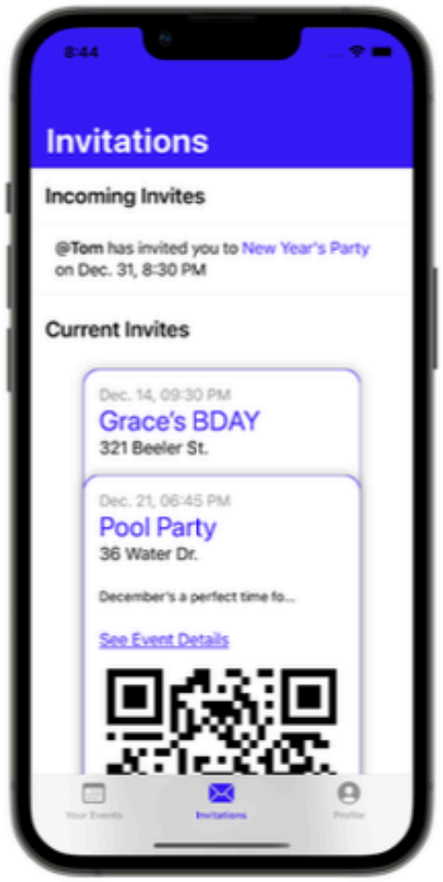
Grace J, Kenny H, Sara S

Bouncr



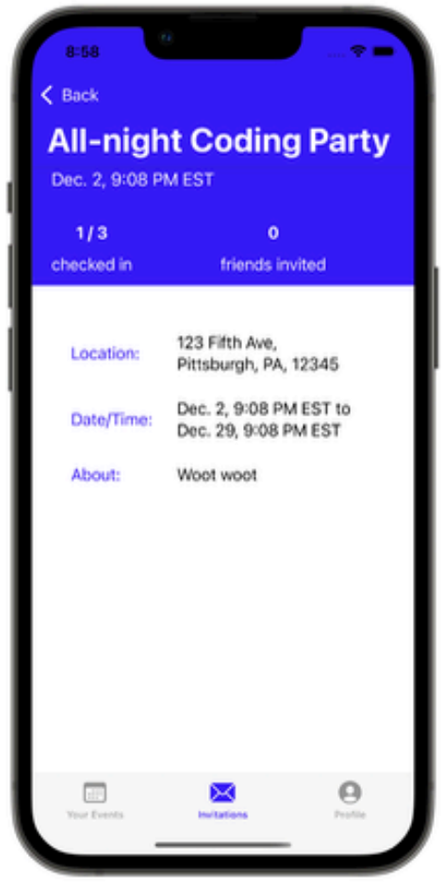
Easy Event Creation

Event hosts can create events and advertise their details to guests of their choosing. All the events they host are compiled into one handy screen



Digitized Checkin

With Bouncr, hosts can generate and send invites to their guests in just a few taps. Those guests can later easily gain access to the event by scanning the QR code attached to their invitations.



Live Statistics

Hosts and guests can keep tabs on how busy an event is as they wish. Potential attendees can use this to decide whether or not to attend the event; no one really wants to arrive at an event that's died down (RIP All-night Coding Party)

TimeFeed

For your historical curiosities

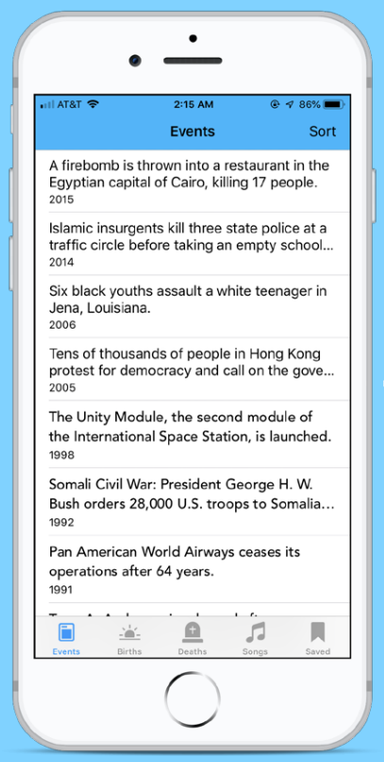
Dylan Hyun
Manuel Lopez

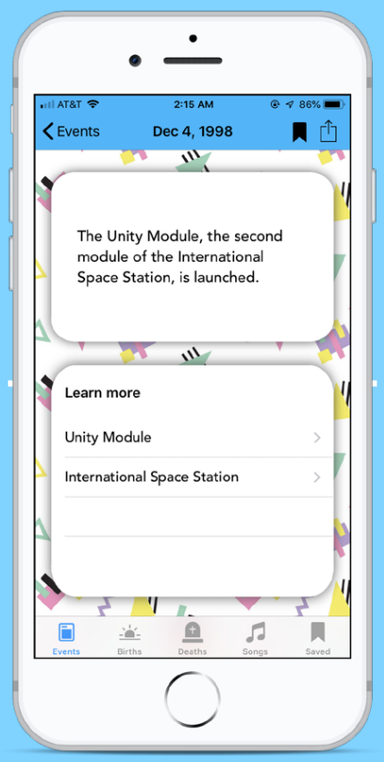
When you're historically curious where do you turn?

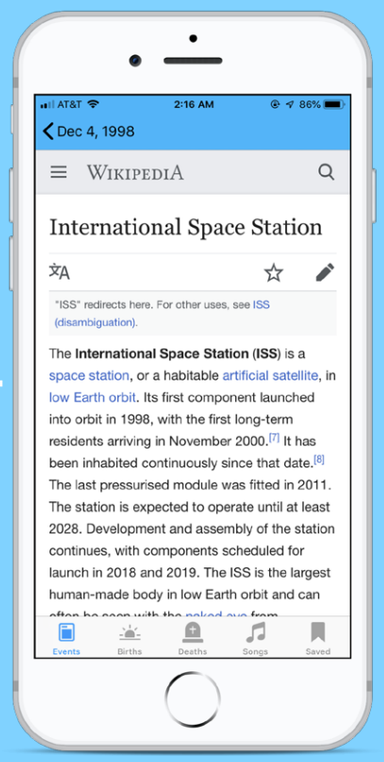
Turn to TimeFeed. Your all encompassing today-in-history app.

- Read about events from all of history
- Wish famous people a happy birthday
- See who met their end
- Find the #1 song for any year
- Explore endlessly with Wikipedia
- Listen immediately with Spotify
- Share your new knowledge with your friends
- Save to avoid losing info for a year

I wonder what happened today in 1992.



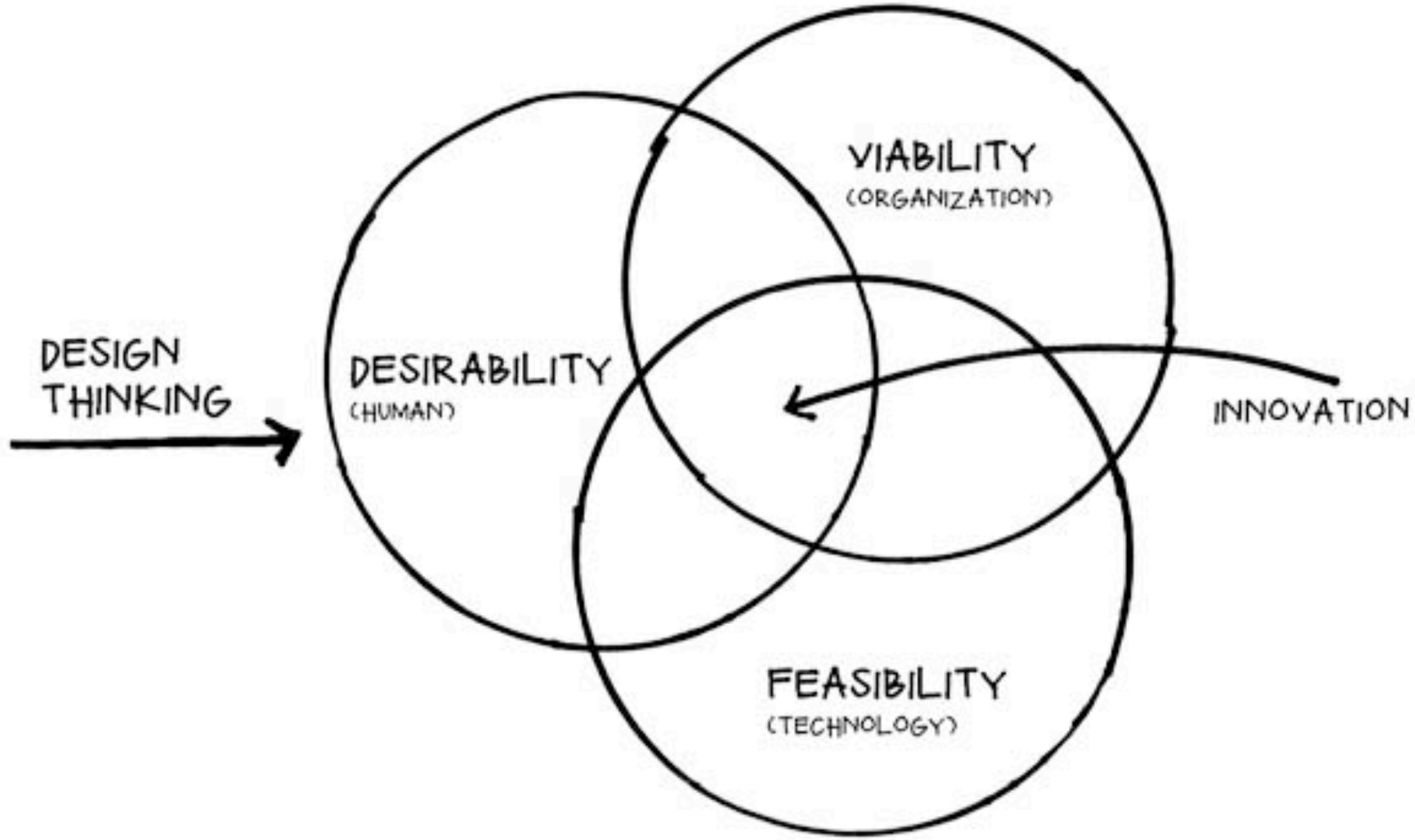


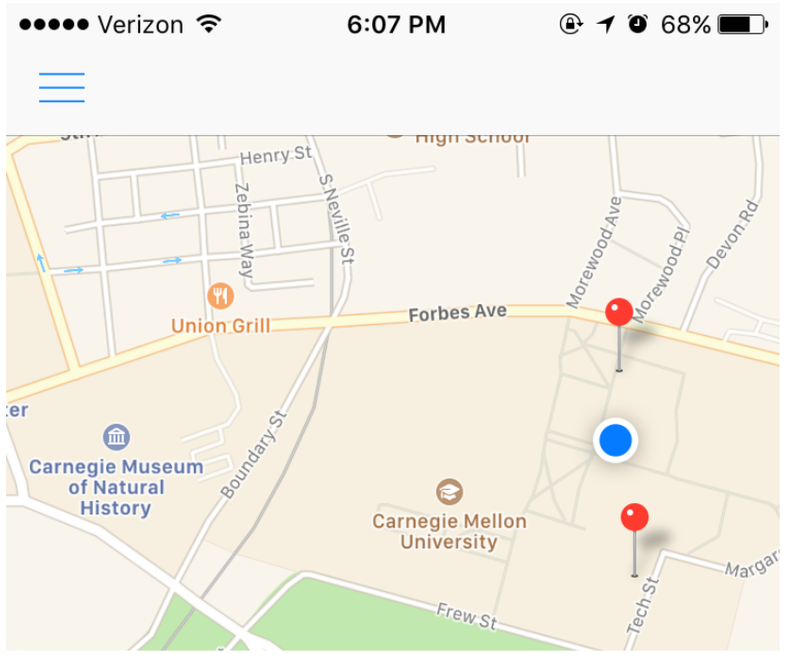


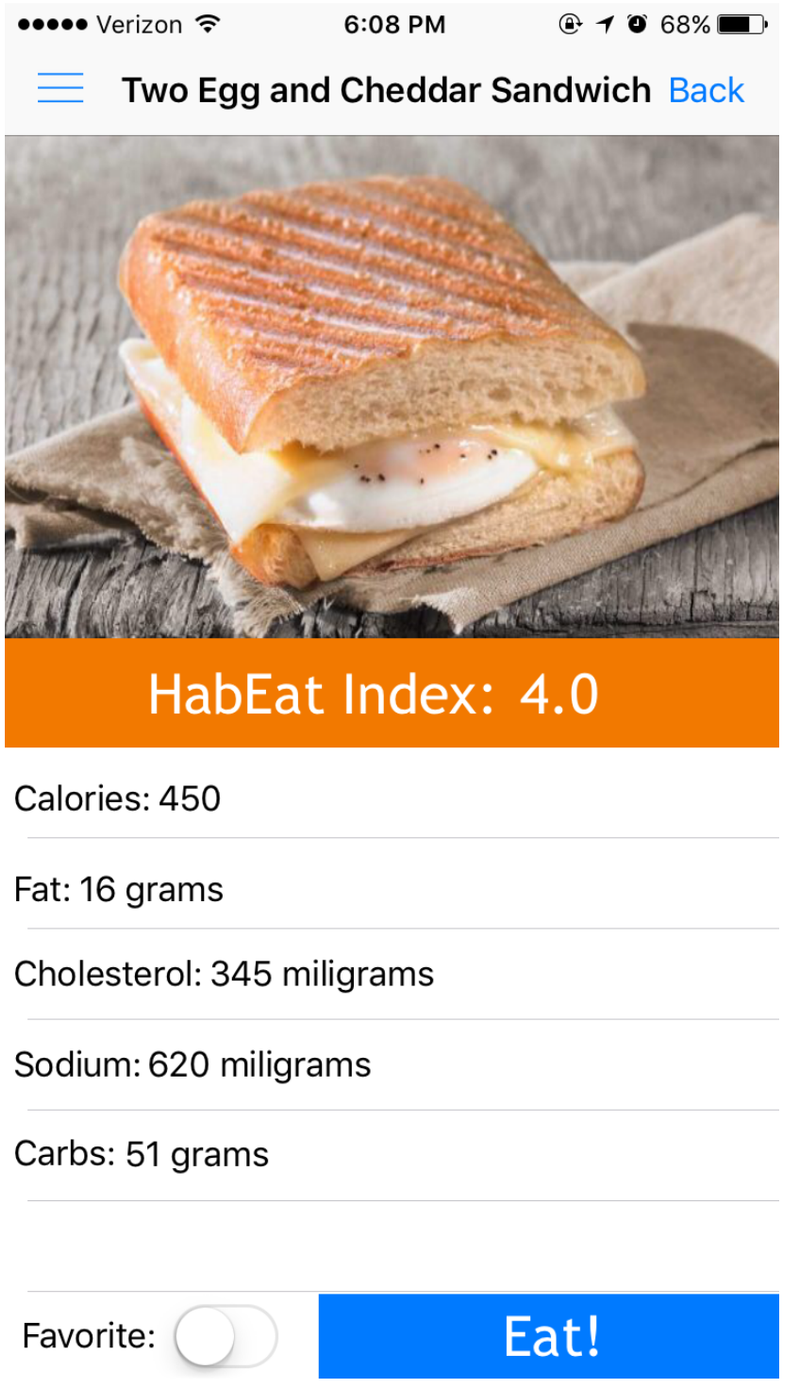
Who's birthday can I celebrate today?

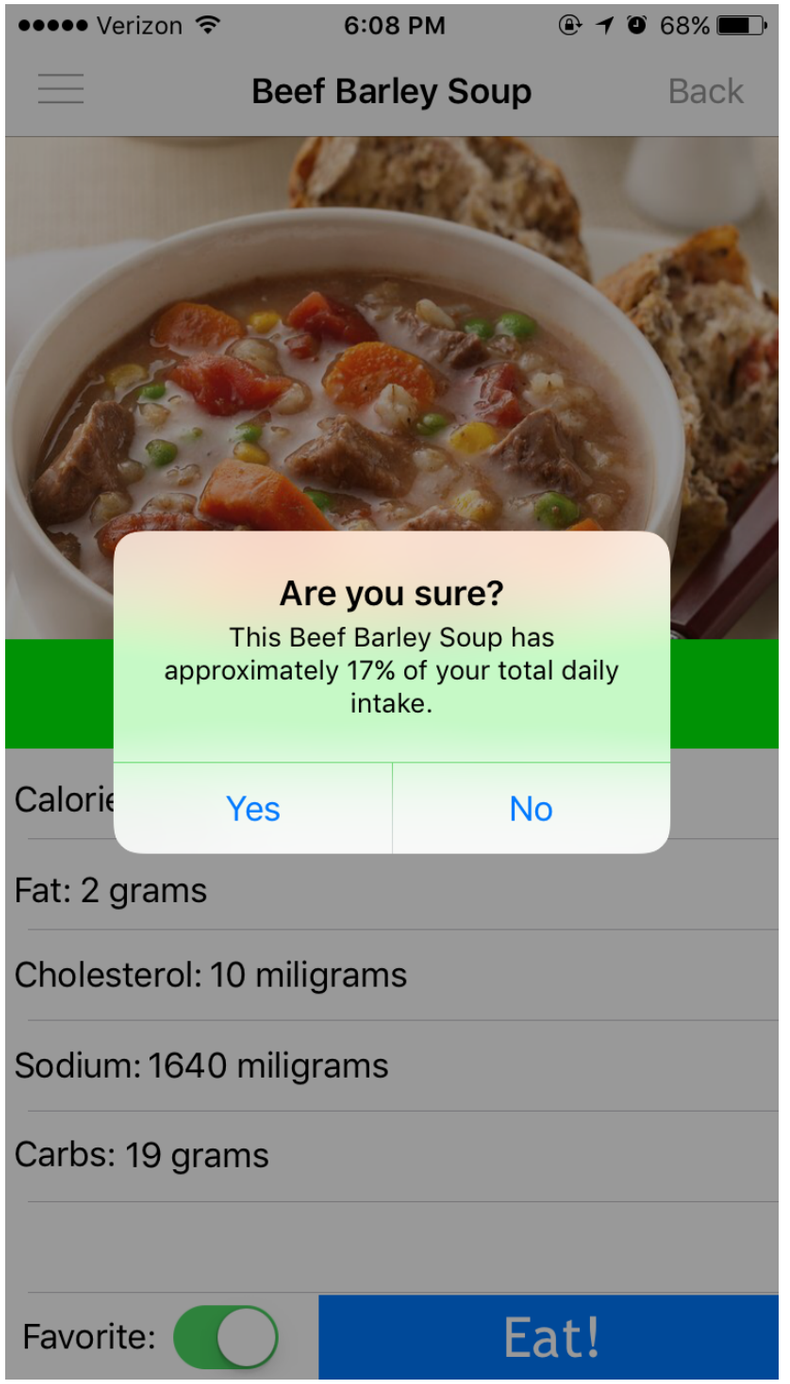
Less successful apps

Desirability—Feasibility—Viability Framework




Verizon
6:07 PM
68%
Henry St
Zebina Way
S Neville St
Union Grill
Forbes Ave
Morewood Ave
Morewood Pl
Devon Rd
Carnegie Museum of Natural History
Boundary St
Carnegie Mellon University
Frew St
Tech St
Au Bon Pain
0.05 mi
The Exchange
0.11 mi


Verizon
6:08 PM
68%
Two Egg and Cheddar Sandwich
Back
HabEat Index: 4.0
Calories: 450
Fat: 16 grams
Cholesterol: 345 miligrams
Sodium: 620 miligrams
Carbs: 51 grams
Favorite:
Eat!


Verizon
6:08 PM
68%
Beef Barley Soup
Back
Are you sure?
This Beef Barley Soup has approximately 17% of your total daily intake.
Yes
No
Fat: 2 grams
Cholesterol: 10 miligrams
Sodium: 1640 miligrams
Carbs: 19 grams
Favorite:
Eat!

HabEat

Carrier 7:33 PM

Near By Restaurants

Union Grill

The Porch

Rose Tea Cafe

Home Queue

Carrier 7:35 PM

Back Union Grill

Union Grill

0 hours and 13 minutes

Party Size

Hop In Line!

Home Queue

Carrier 7:36 PM

Thank you for reserving at Union Grill

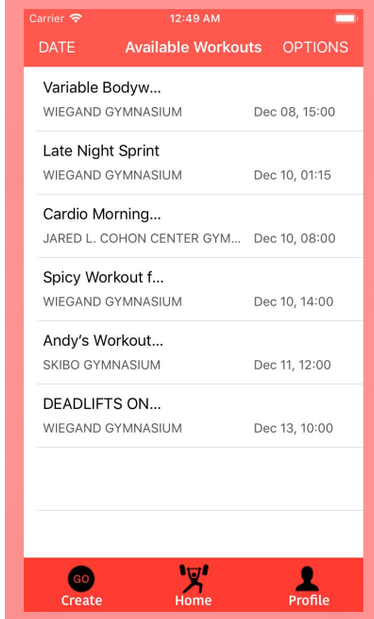
Your waiting time is

0 hours and 12 minutes

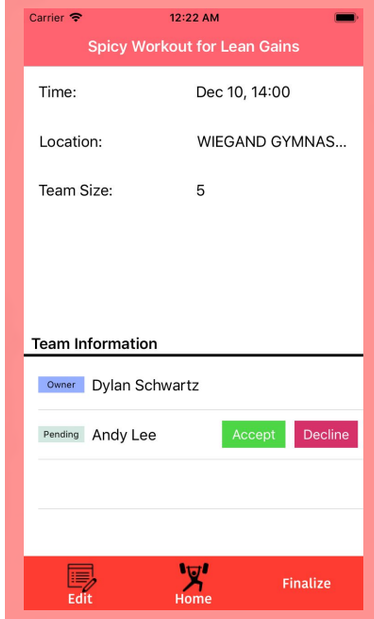
Cancel Reservation

Home Queue

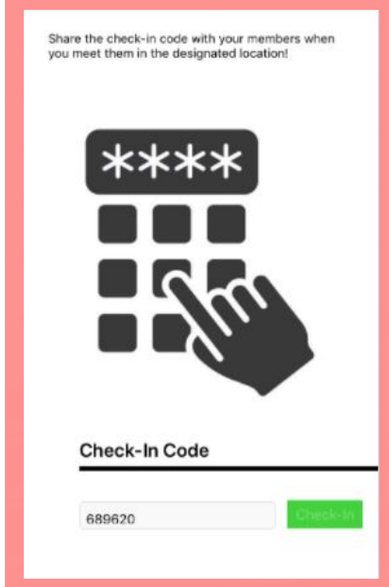
Queue



STEP 1:
Browse through workouts



STEP 2:
Manage or Join Workouts



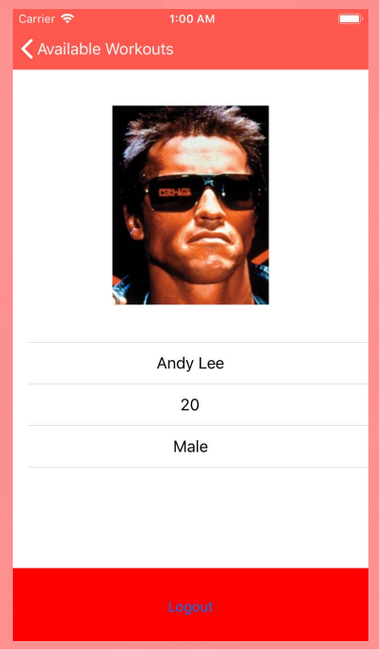
STEP 3:
Check-In Workouts

GymBros, a platform for people who want to workout together.

Our platform Goal :

Support those who want to improve physical health and enjoy the process.

We allow our users to <u>create</u> and <u>join</u> workout sessions, with additional features such as <u>check-in</u> so working out is never a chore, but always a <u>commitment</u>.



OPTIONAL:
Personalize Your Profile

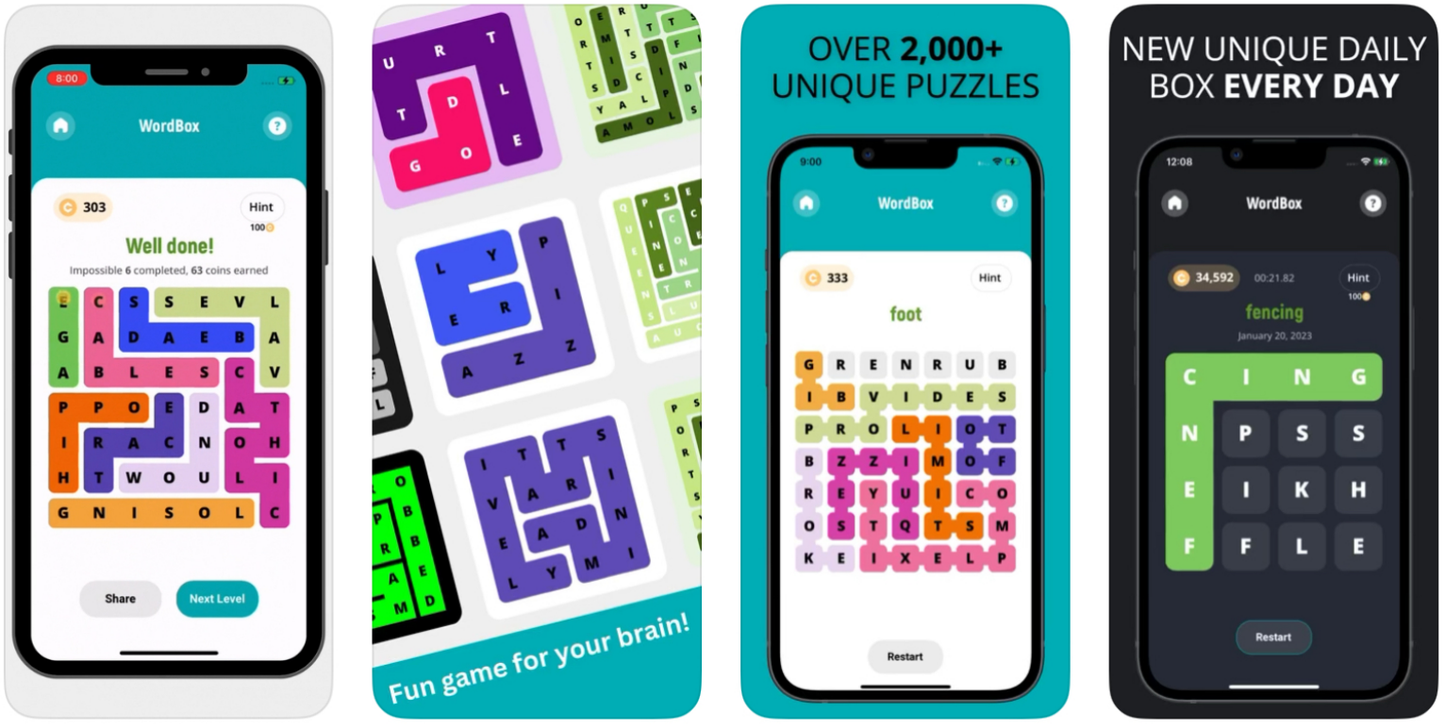
Class Exercise

An app that allows you to scan barcodes of items in a given store (determined by your geolocation) to see the item's current price, displayed on your phone and saved for future reference.

Evaluate such an app in terms of its:

- Desirability
- Feasibility
- Viability

For next time…



Course alumnus James Ormond:
“Measuring User Behavior
(in Mobile Gaming)”

Get WordBox at: