

Visual Interaction Design

# Class 13: Design for Mobile

Erin Malone

## Project Two: Phase One

WEEK 5

Class Critique - Project 1  
Introduction - Project Two

Brand  
Moodboards

WEEK 6

Logos,  
Styletiles  
& Toolkits

Class Critique

WEEK 7

**Designing for  
Multiple screens**

Class Critique

WEEK 8

Designing for  
Multiple screens

Class Critique

WEEK 9

Data Info &  
visualization

Designing with  
Data

# Learning Objective

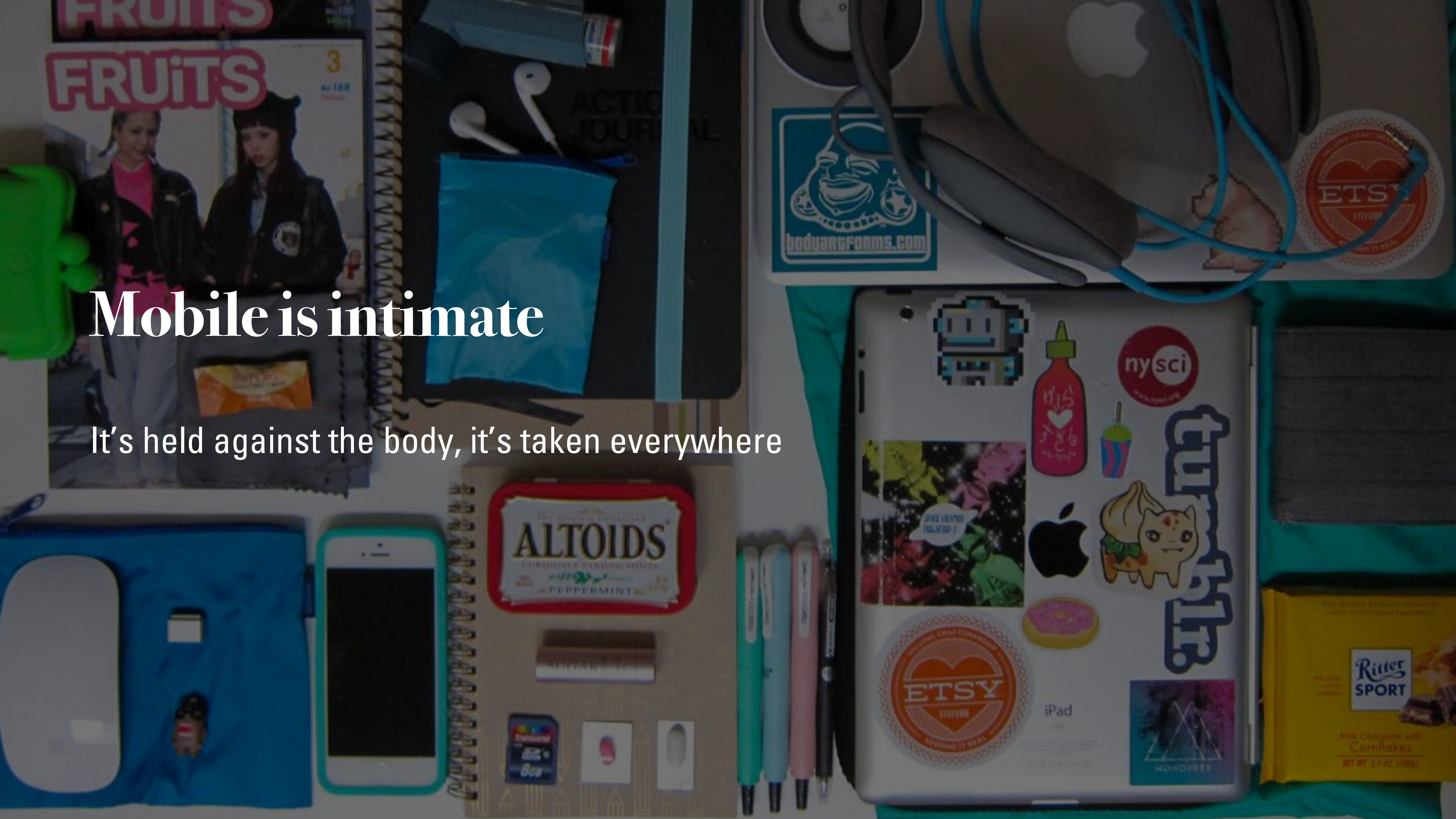
Become acquainted with **Mobile design principles**

Understand the **differences between** iOS and Android interfaces

Practice designing **Mobile First**

# Mobile is intimate

It's held against the body, it's taken everywhere



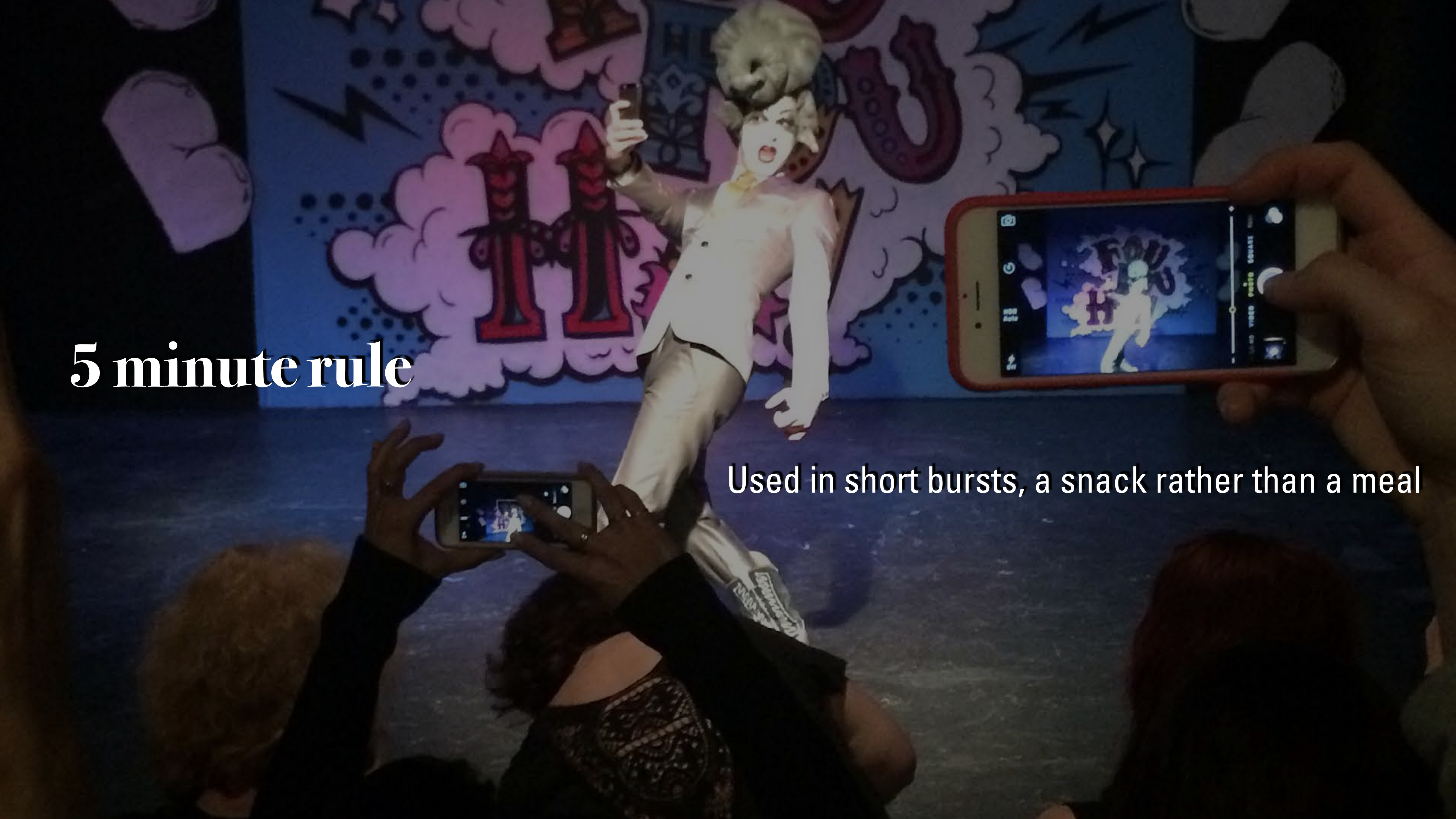


**Mobile is used to kill time  
& during multi-tasking**

Design for interruptions

# 5 minute rule

Used in short bursts, a snack rather than a meal



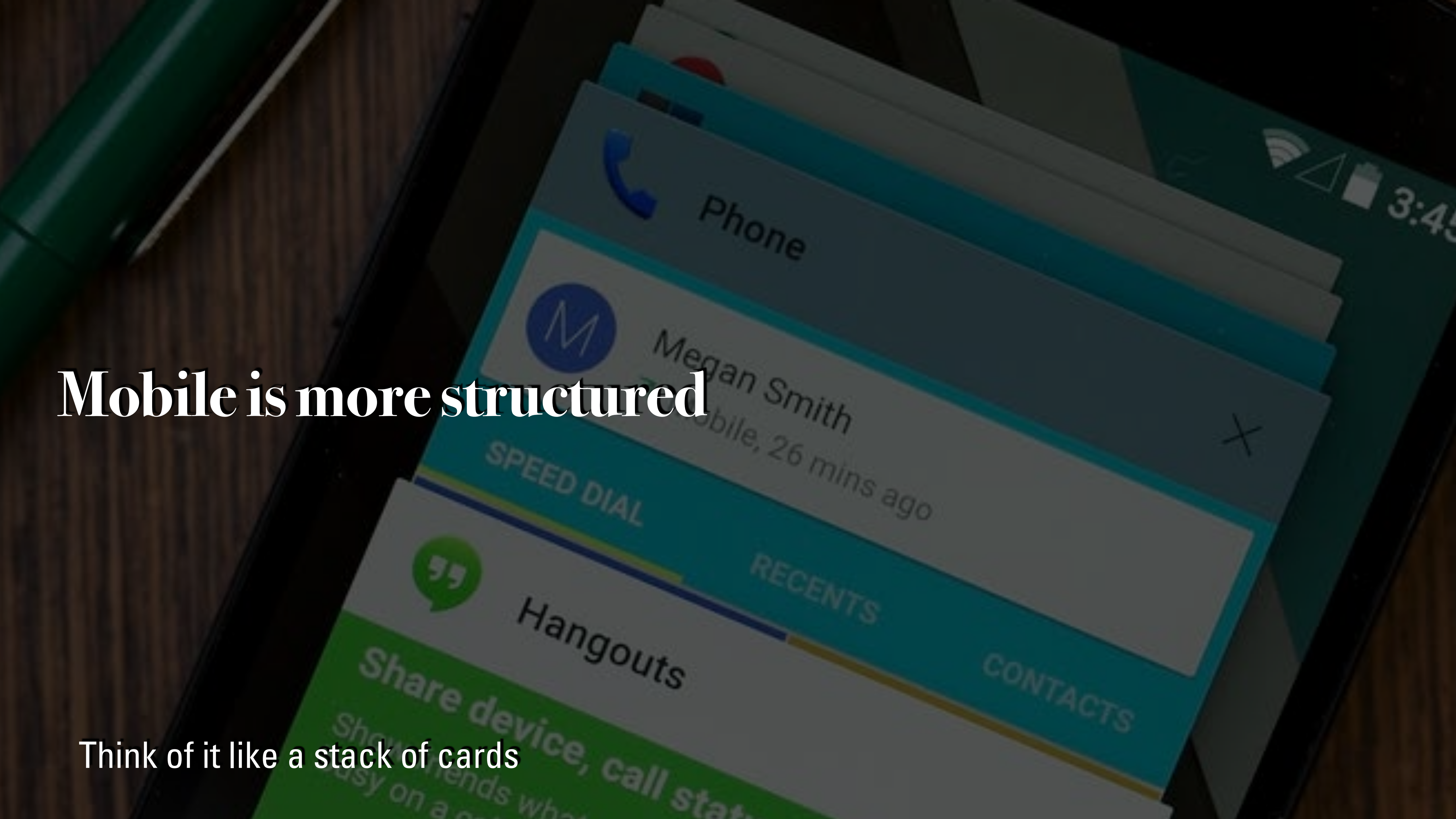
A large crowd of people is shown from a low angle, looking upwards. Many individuals are holding up their mobile phones and cameras to capture photos or videos. The scene is brightly lit, suggesting an outdoor event during the day. The background is filled with more people, some wearing hats and casual clothing, creating a sense of a large gathering.

**Mobile should be full featured**

Not a pared down version of the web or sub-standard

# Mobile is more structured

Think of it like a stack of cards

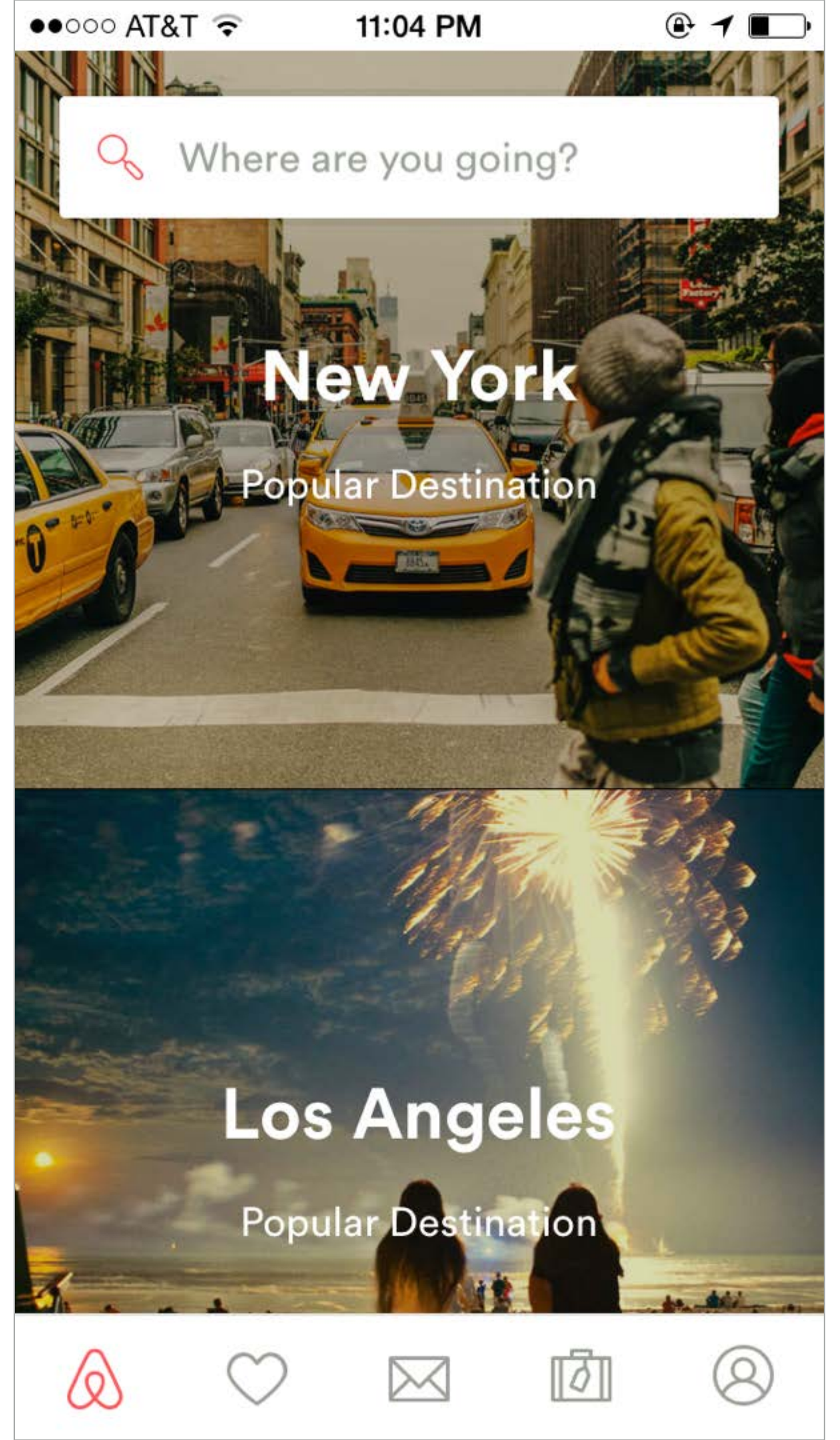




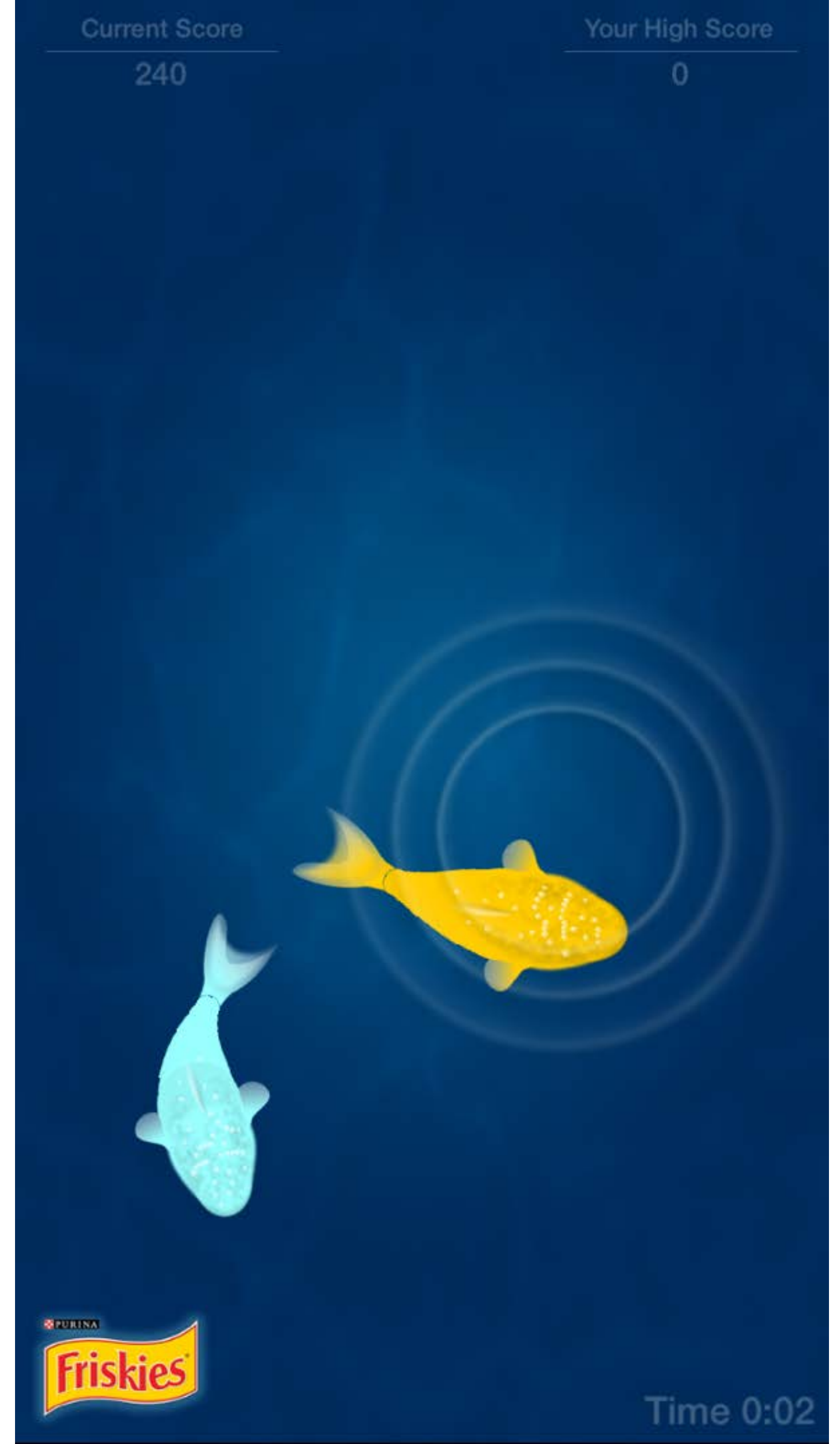
A group of people are seated in a room, possibly a classroom or workshop. In the foreground, a dog with shaggy, light-colored fur is visible. The people are engaged with various devices: one person is using a laptop, another is using a tablet, and others are looking towards the front of the room. The scene is dimly lit, and the overall atmosphere is focused and collaborative.

# Mobile Design Principles

Start Instantly



# Interactive elements should invite touch



# Focus on content over navigation



The country's largest museum and one of the oldest and finest in the world, this famous museum boasts vast Egyptian, Etruscan, Greek, Roman, European and Middle Eastern galleries, among others. Don't get overwhelmed: take one of the 15 half-hour free eyeOpener tours daily. Multimedia iPad tours are also available.

**Identify the single most  
important task  
& make it DEAD simple**

**Choose a theme color.**

You can change it again whenever you like in the  
themes menu.



# Use strong visual hierarchy

Bicycle icon 36M

**44**  
MINUTES UNTIL  
Coffee with Sam

Progress indicator: 10 dots, 10th dot active

Close

**26%**  
Chance of rain

69% humidity and light  
wind in Dawes Point  
with light rain

Progress indicator: 2 dots, 1st dot active

15–5 11:44

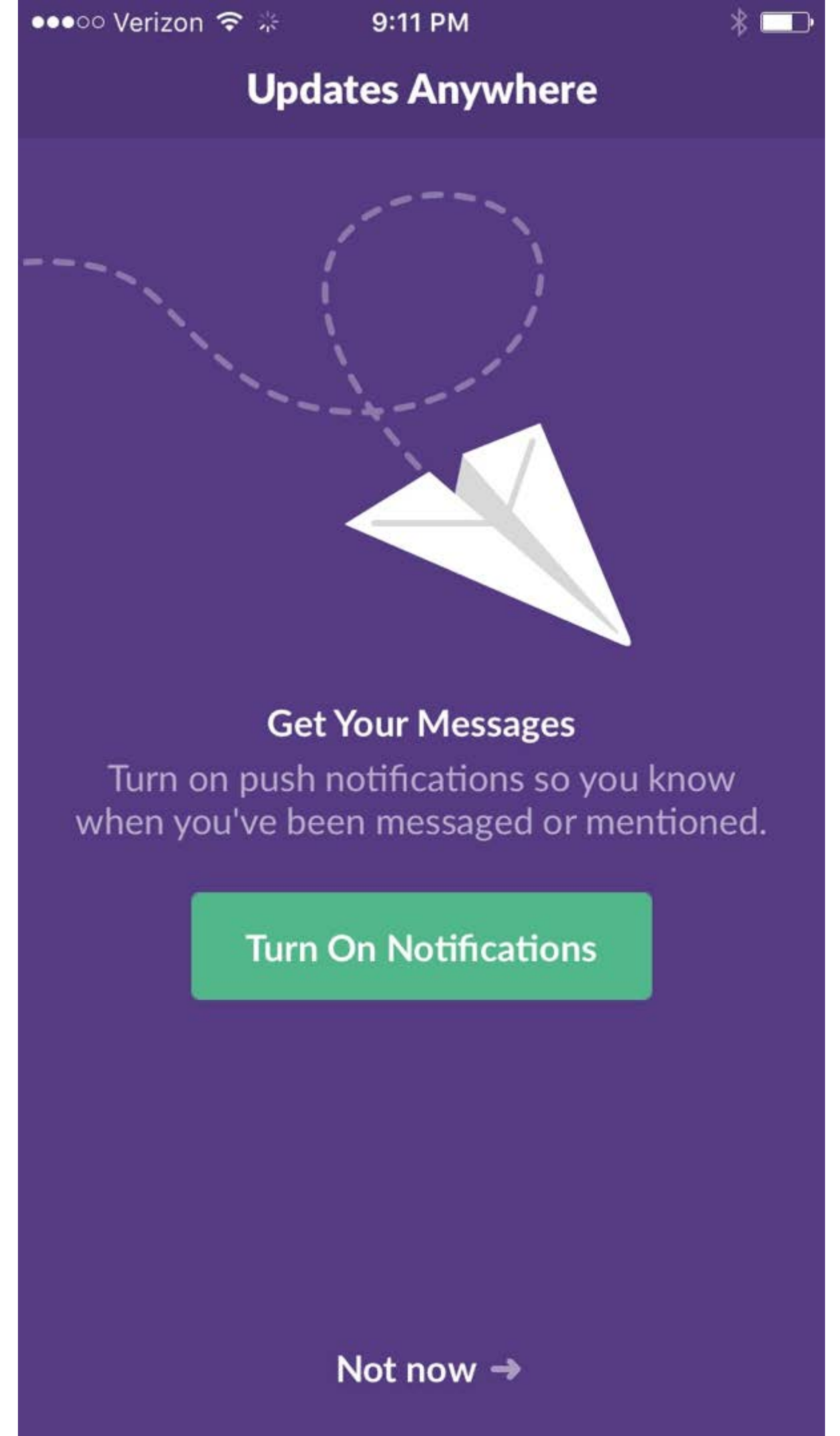
**TODAY**  
21°

**Workout**  
6:00AM - 7:00AM

**Team Meeting**  
2:00PM - 3:00PM

Progress indicator: 10 dots, 1st dot active

# One choice per screen



# Use clear Call-to-Actions

To sign in, enter your mobile #

+1

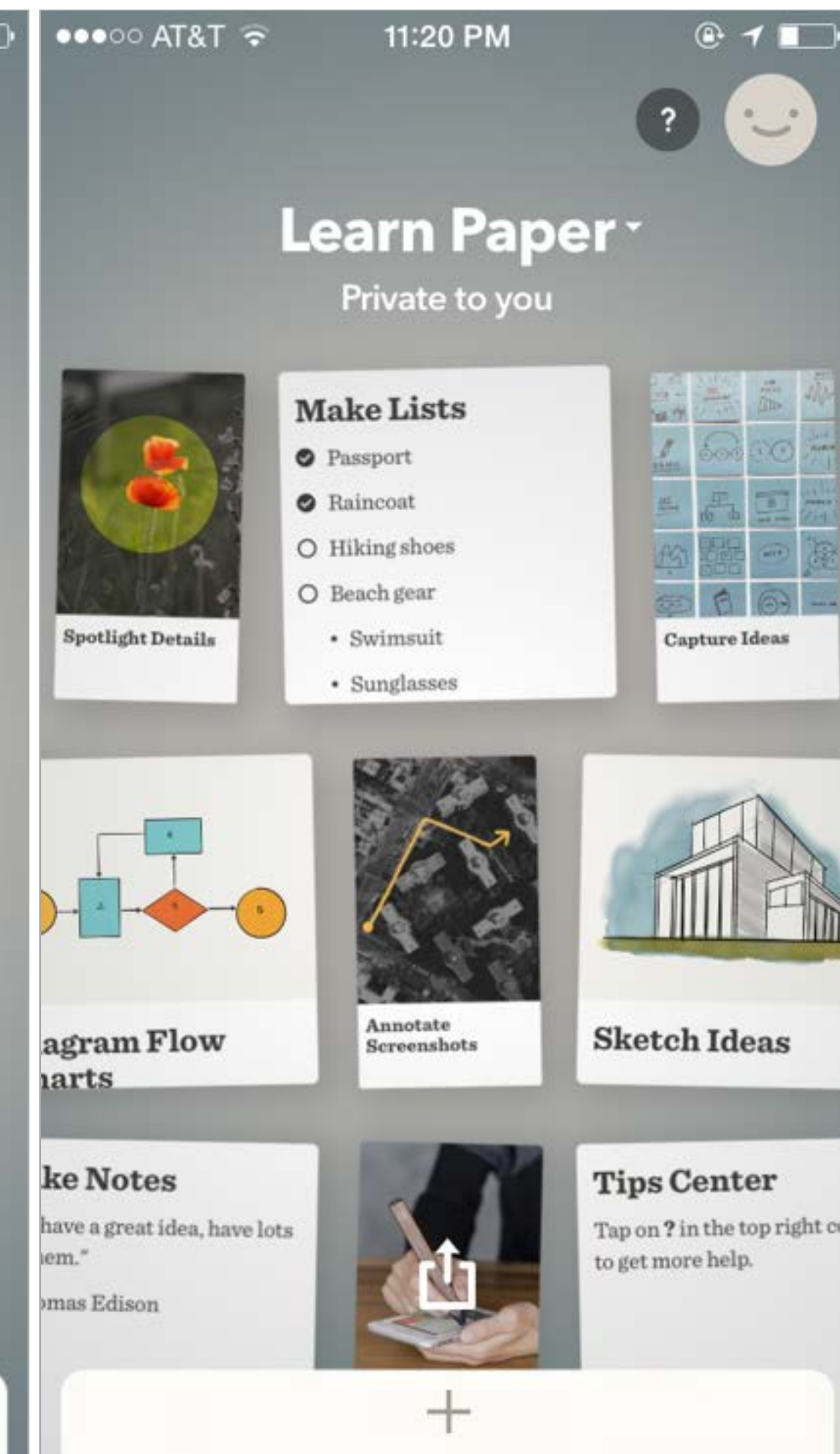
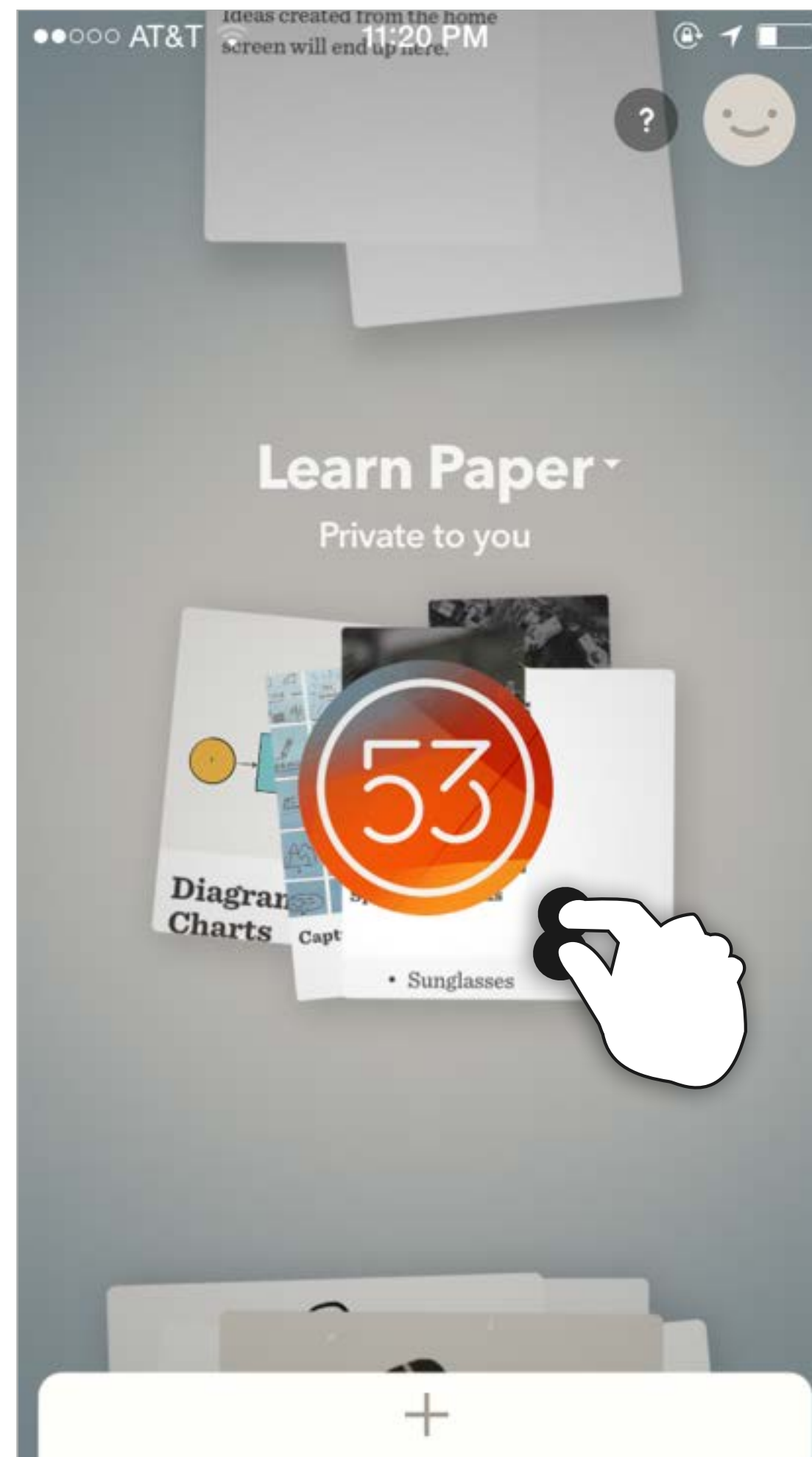
[Sign In](#)

By signing in, you agree to the [Terms of Use](#) and [Privacy Policy](#).

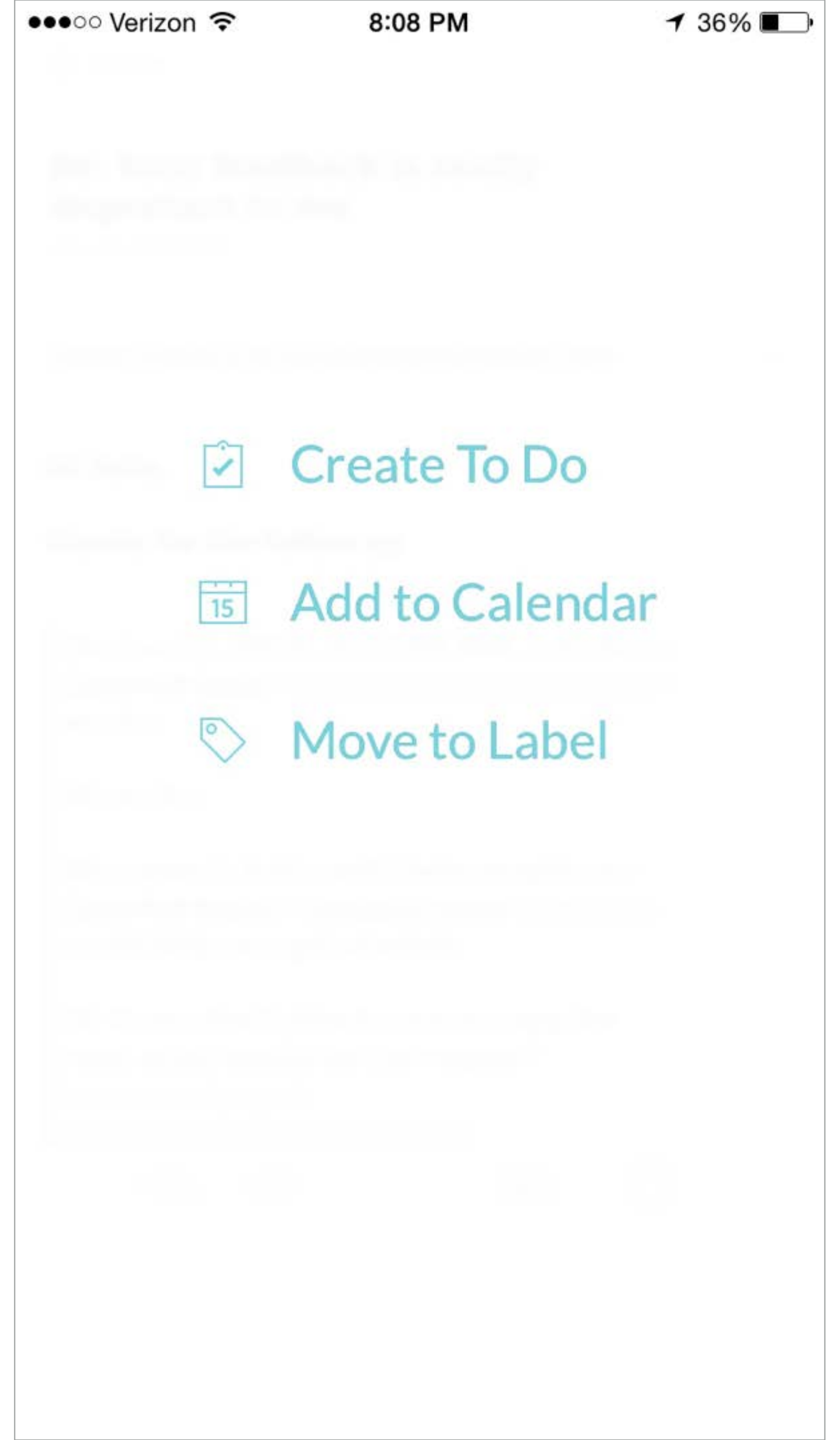
1	2 ABC	3 DEF
4 GHI	5 JKL	6 MNO
7 PQRS	8 TUV	9 WXYZ
	0	⌫



# Use standard gestures



# Use concise messaging



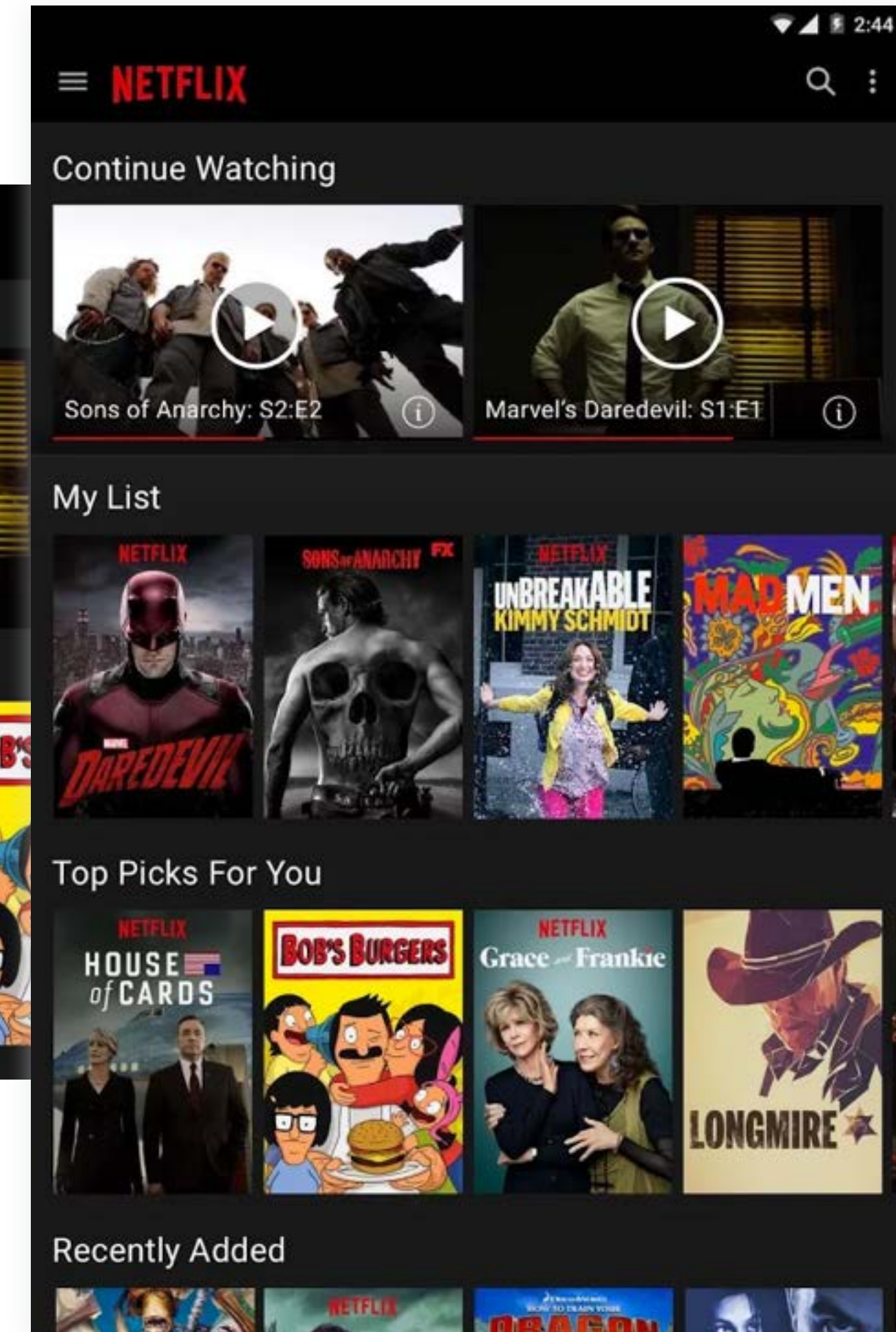
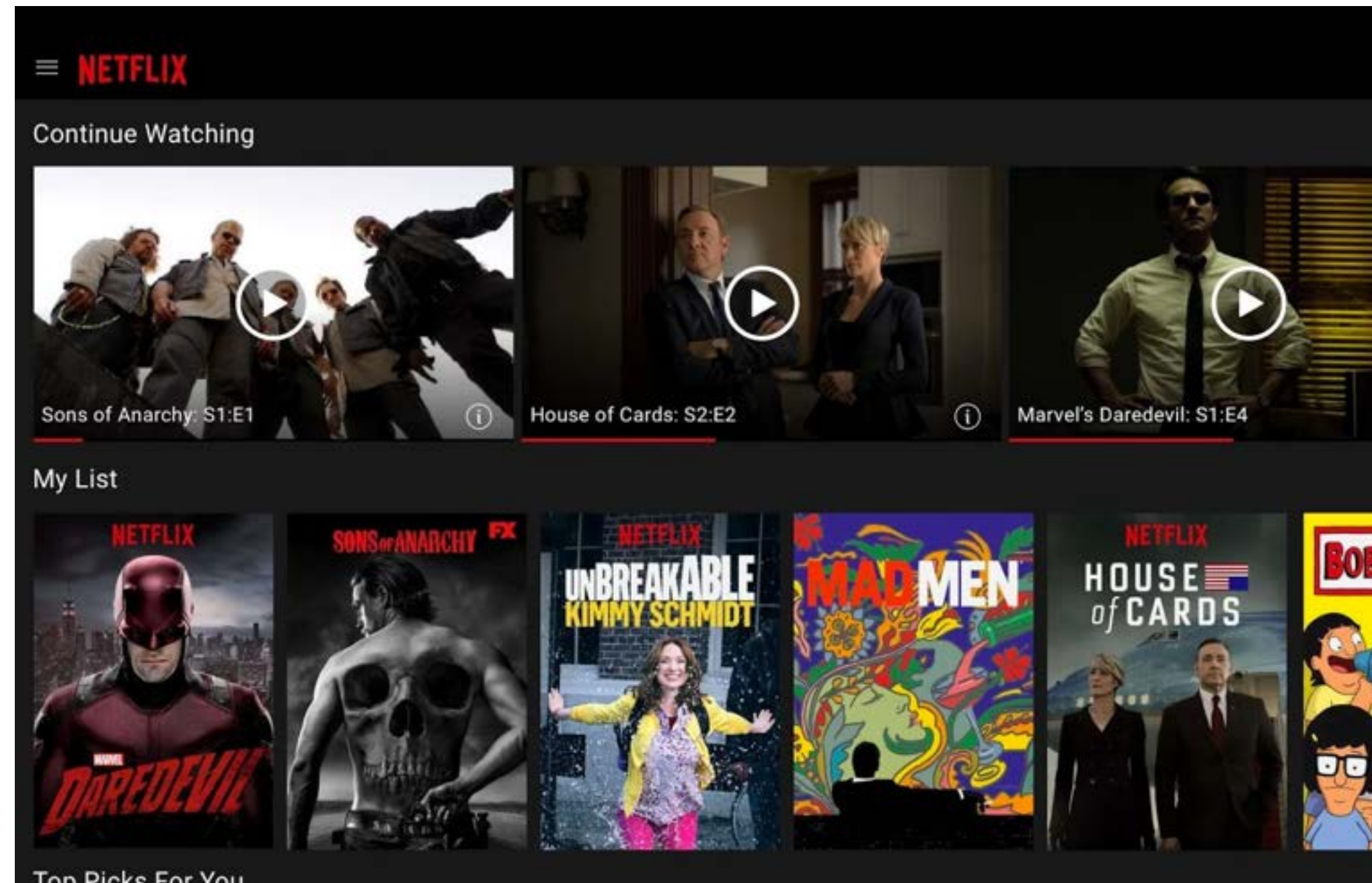
Vertical scroll is your friend



Keep the most important actions  
in the “thumb zone”

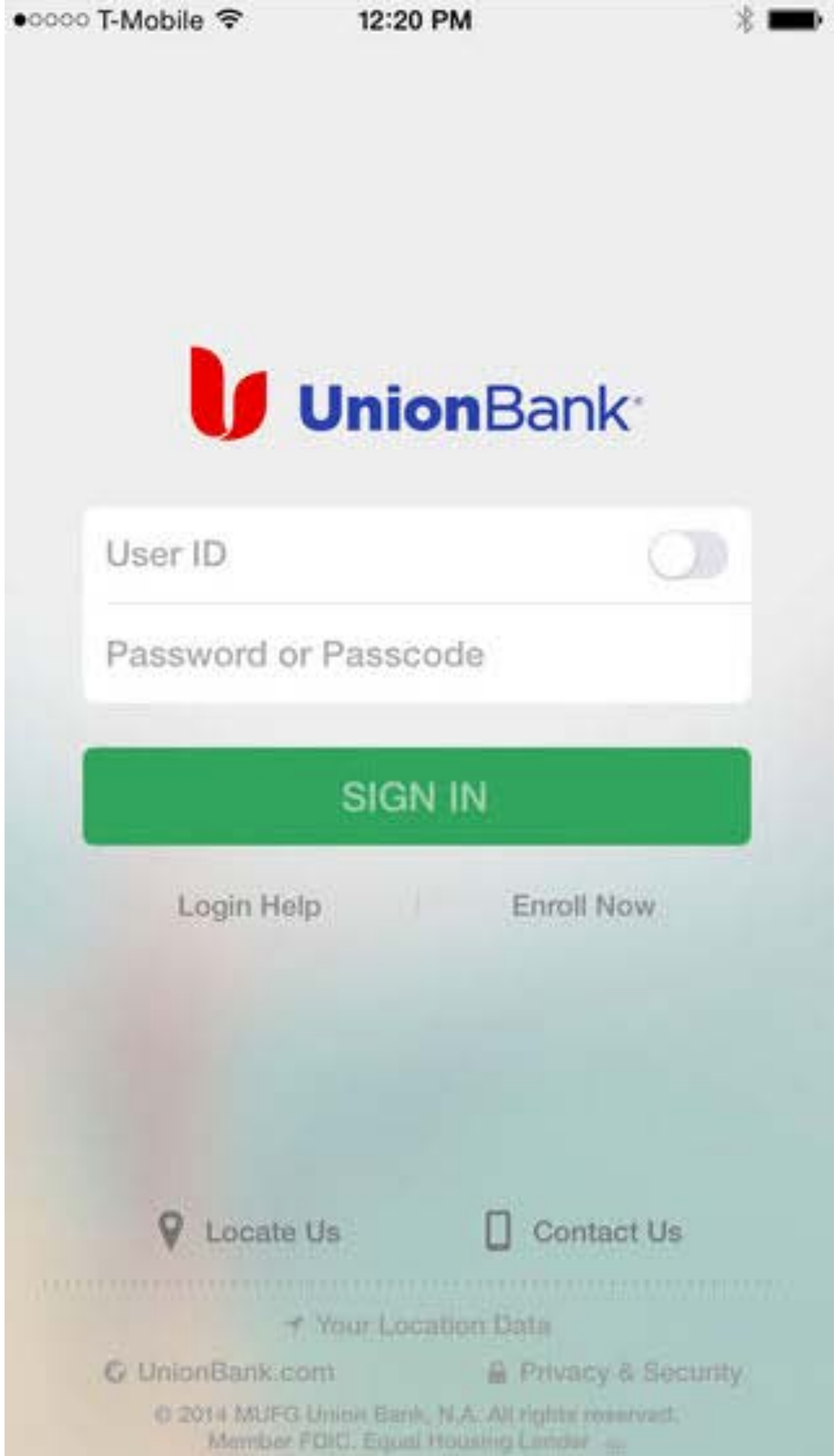


# Design for multiple states

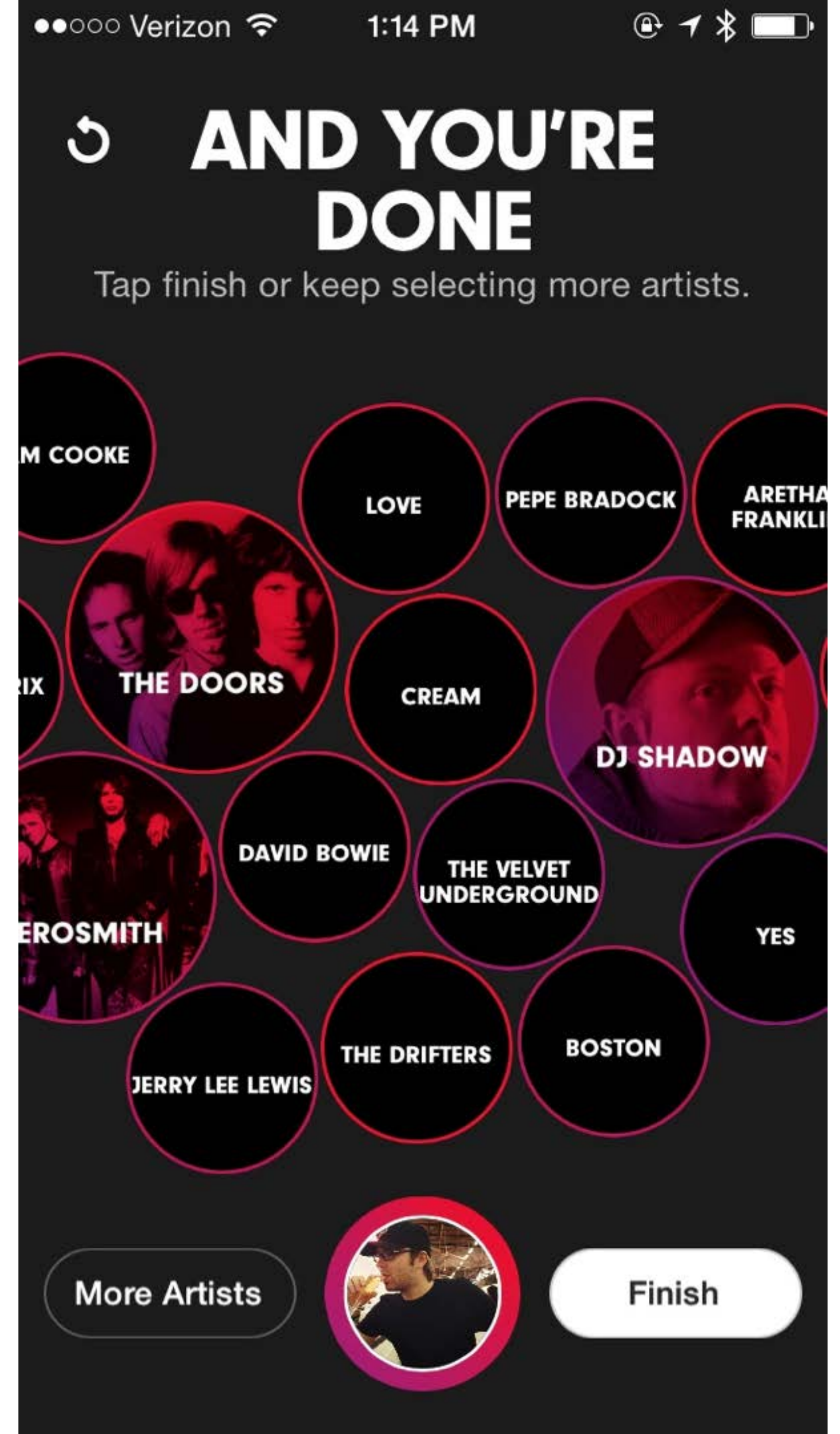


# Follow conventions & patterns

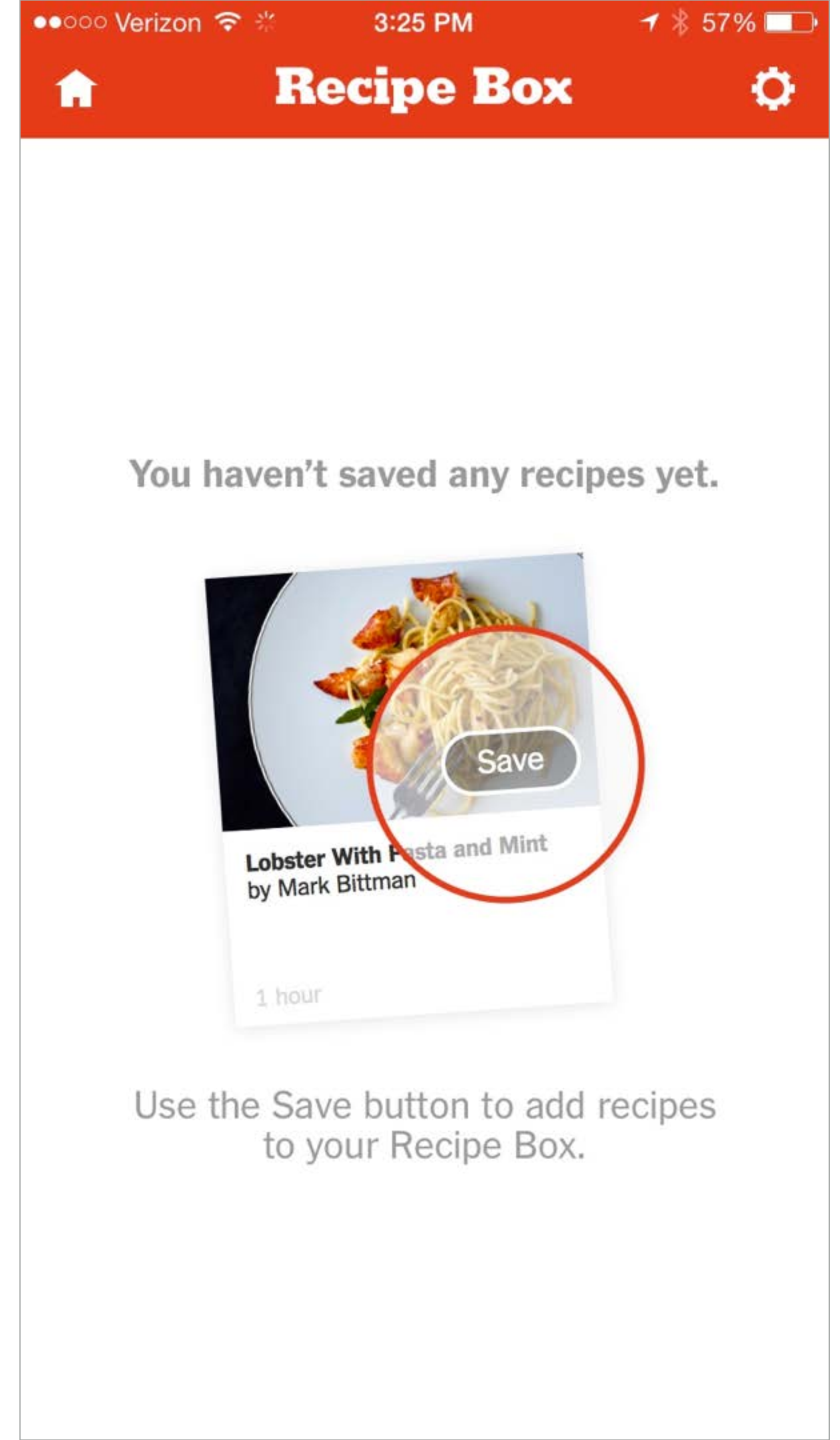
## Reduce the learning curve



# Use feedback to aid understanding

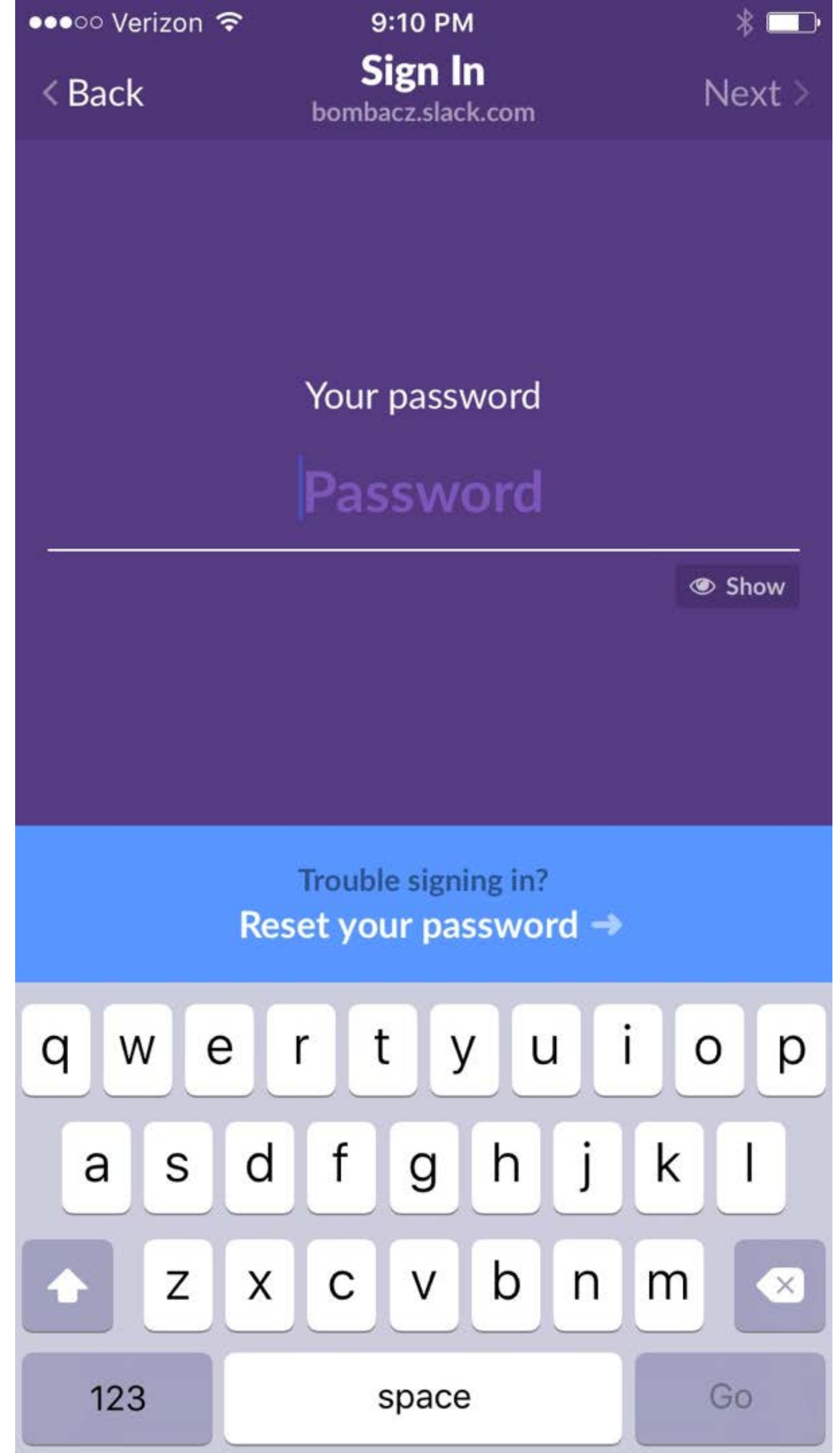


# Design for empty states

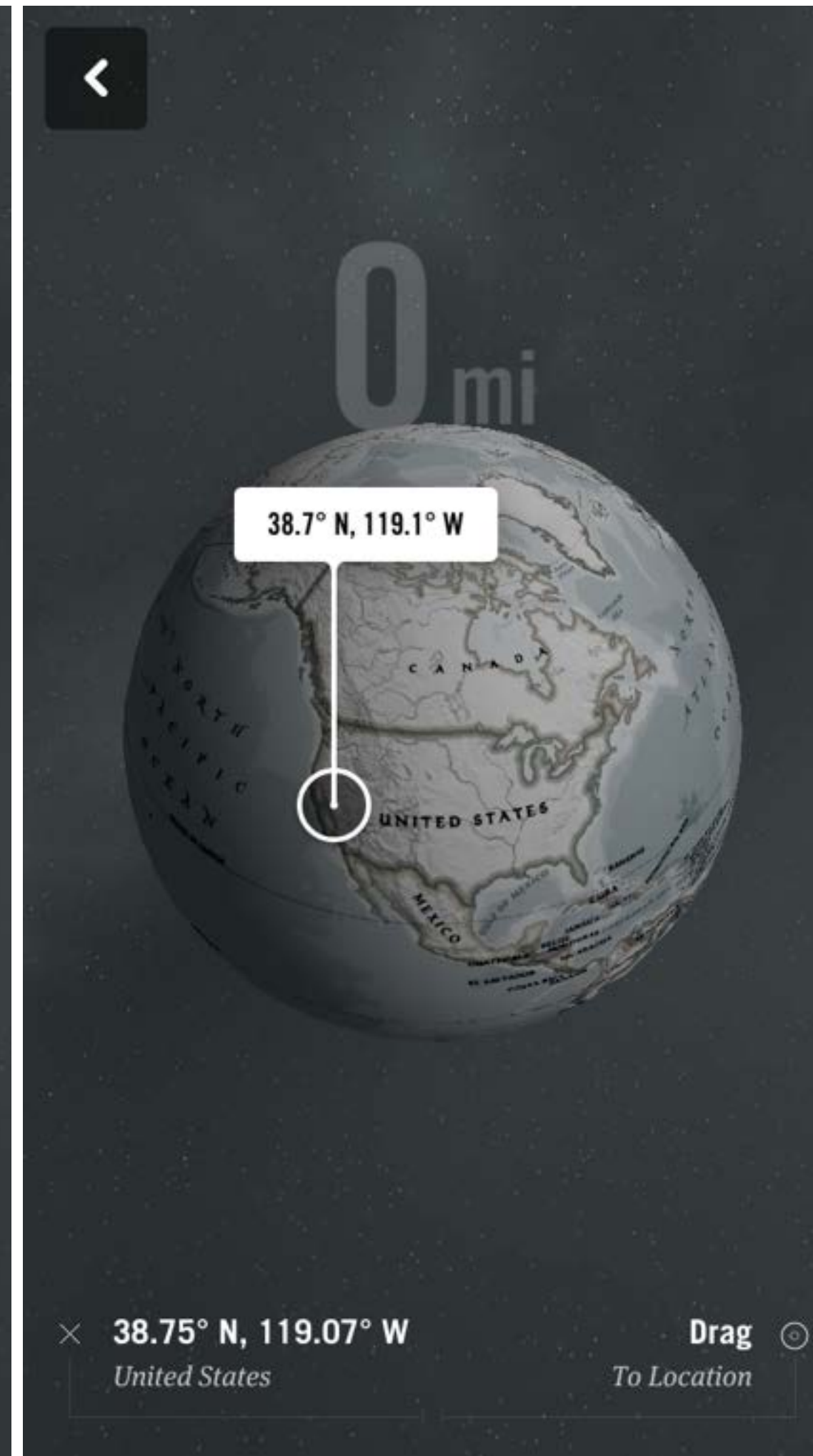




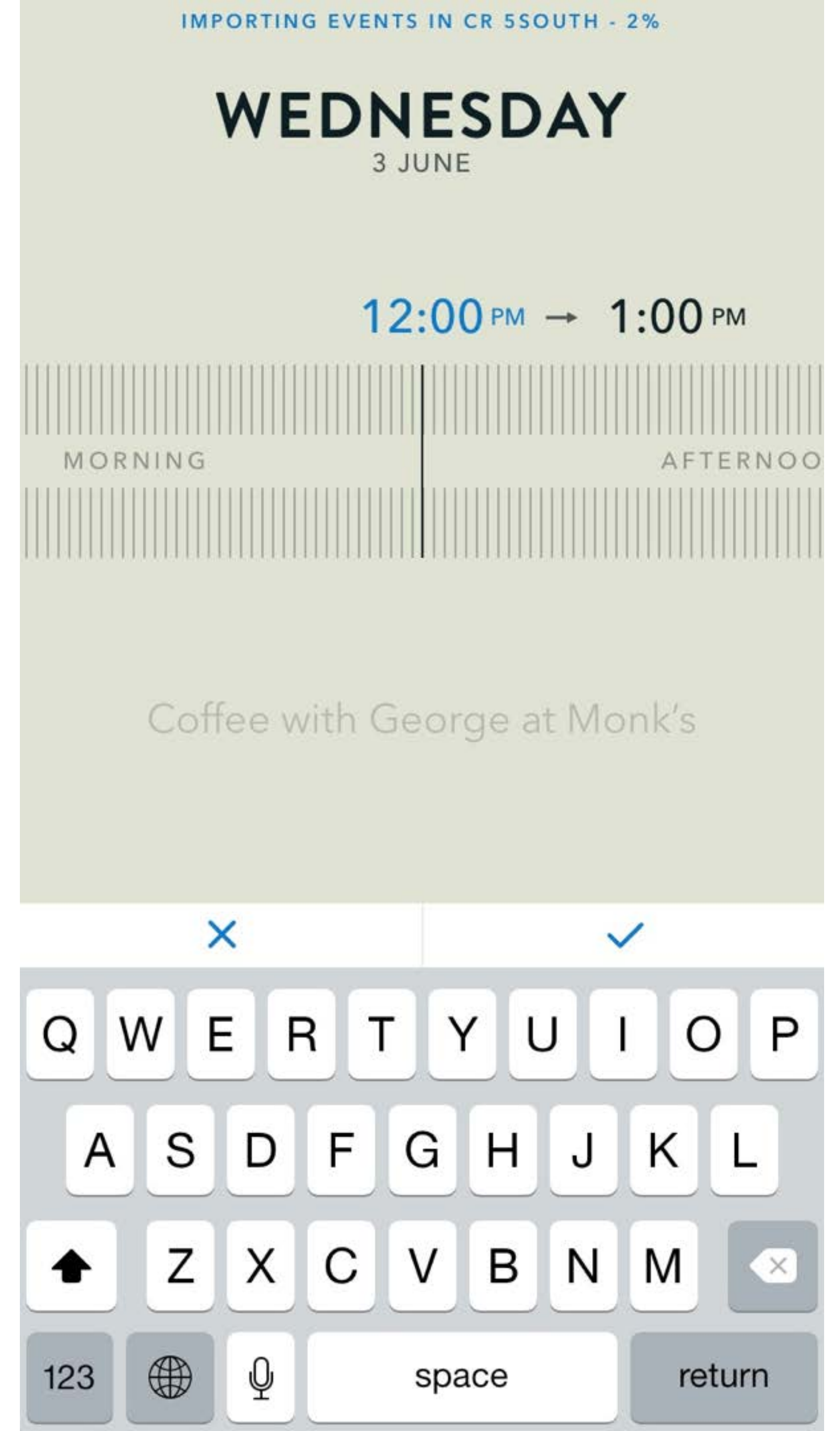
# Info input should be easy



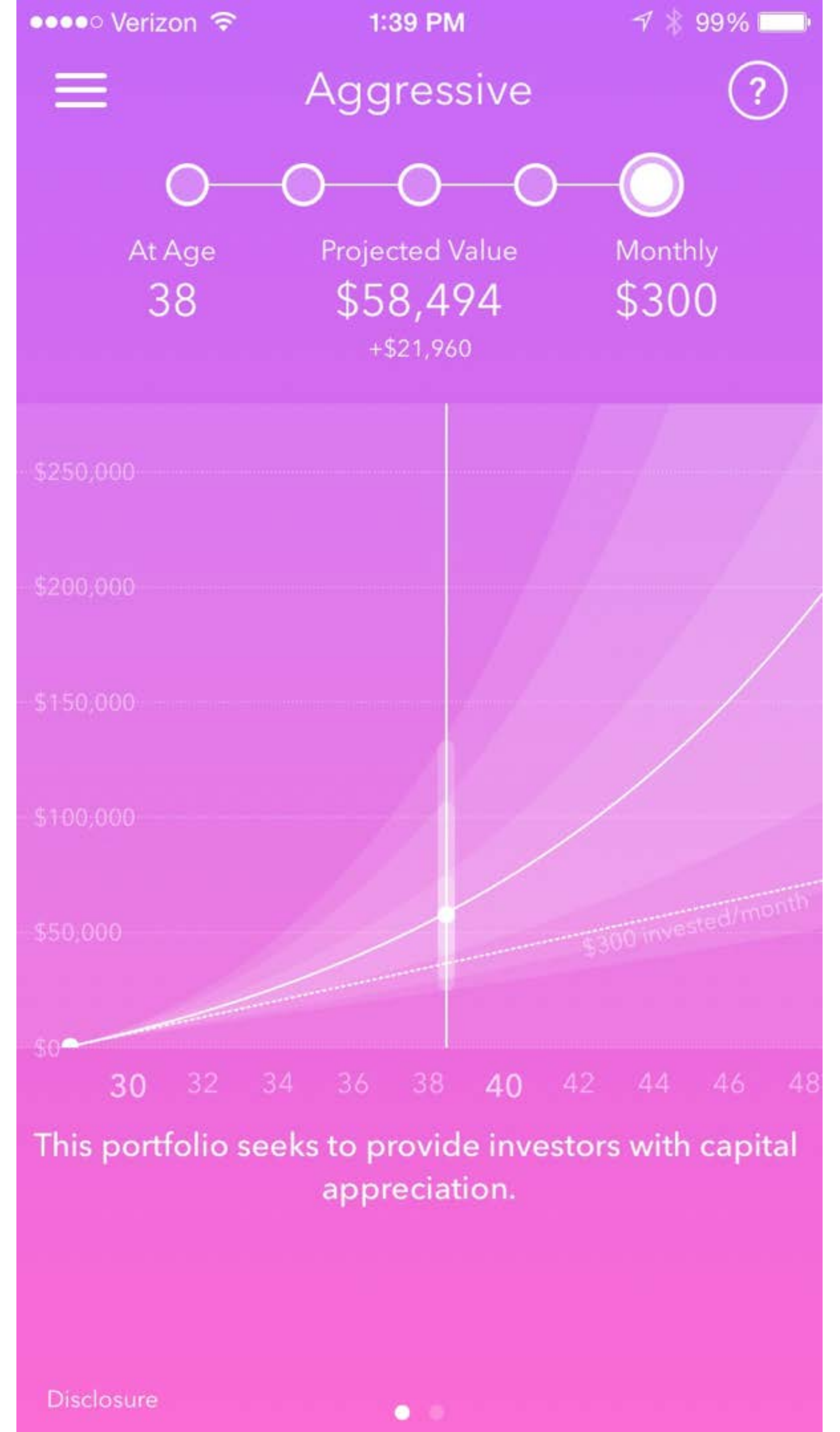
# Animation should communicate & enhance



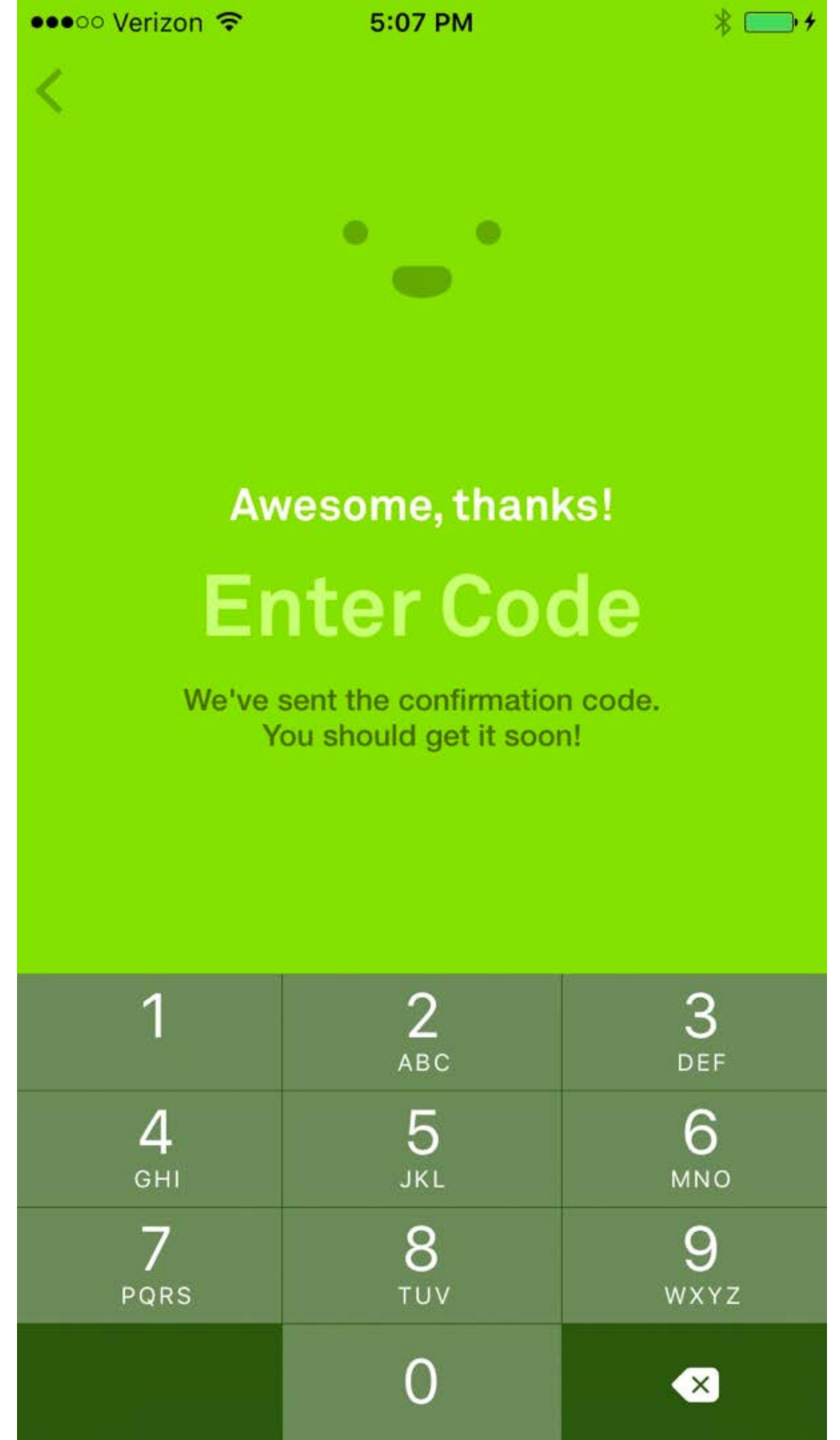
# Use color to communicate intent & interaction



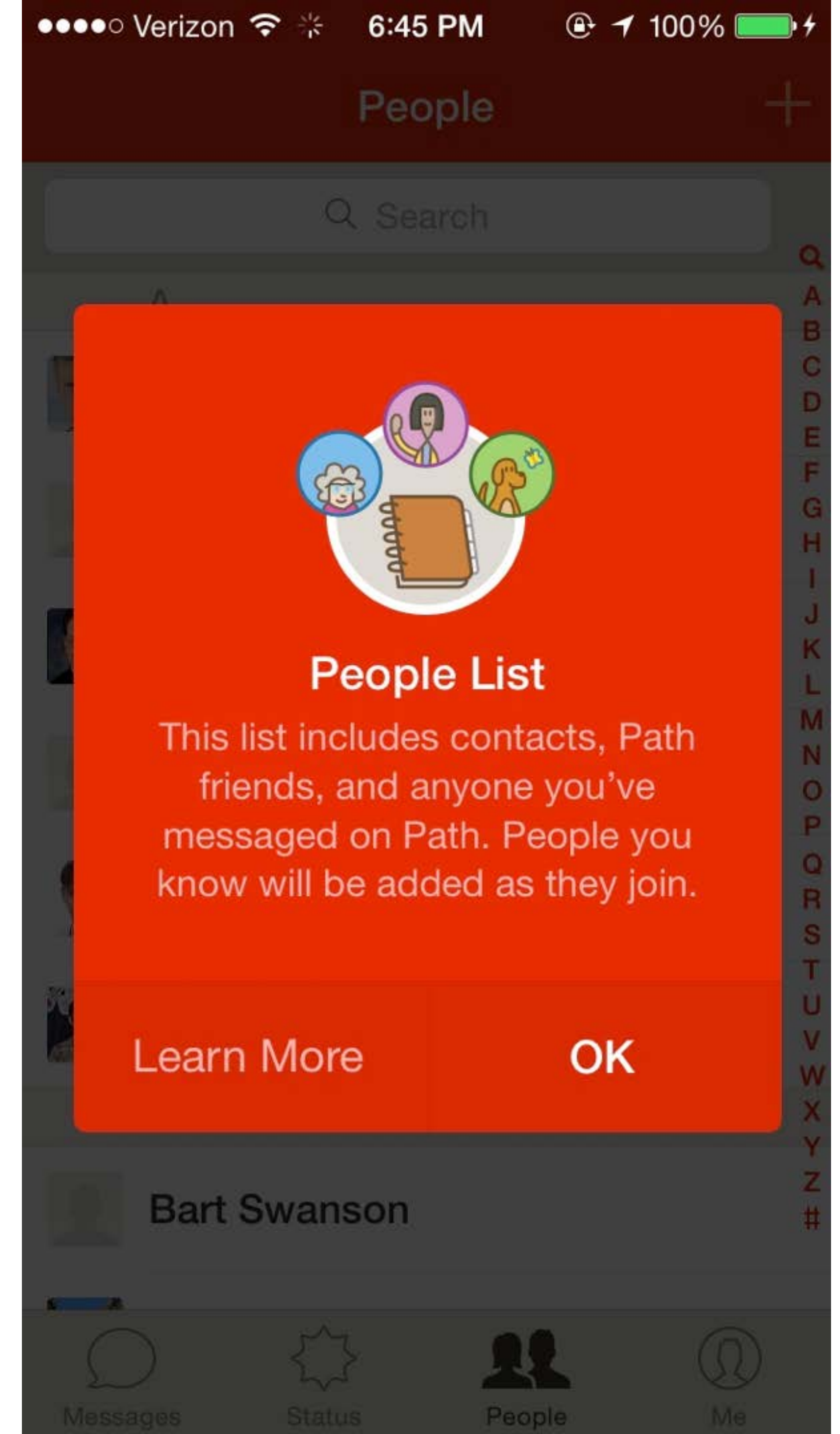
# Use typography to indicate information hierarchy



# Use authentic language



# Default alerts & modals to the safest option & keep it simple





# iOS & Android (Material Design)

# Screen Resolution

The total number pixels in a display.  
(for example: 1920x1200)

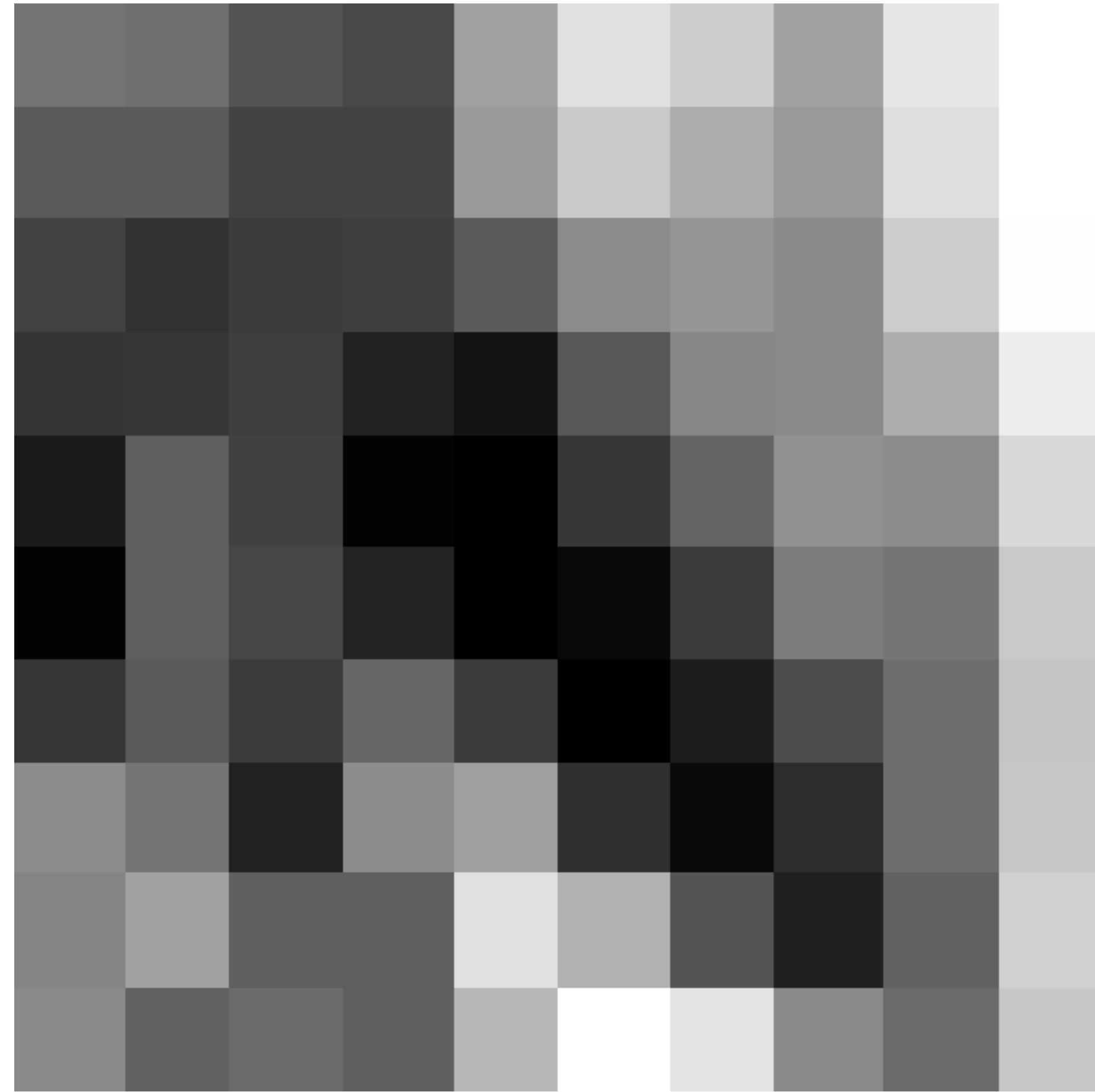




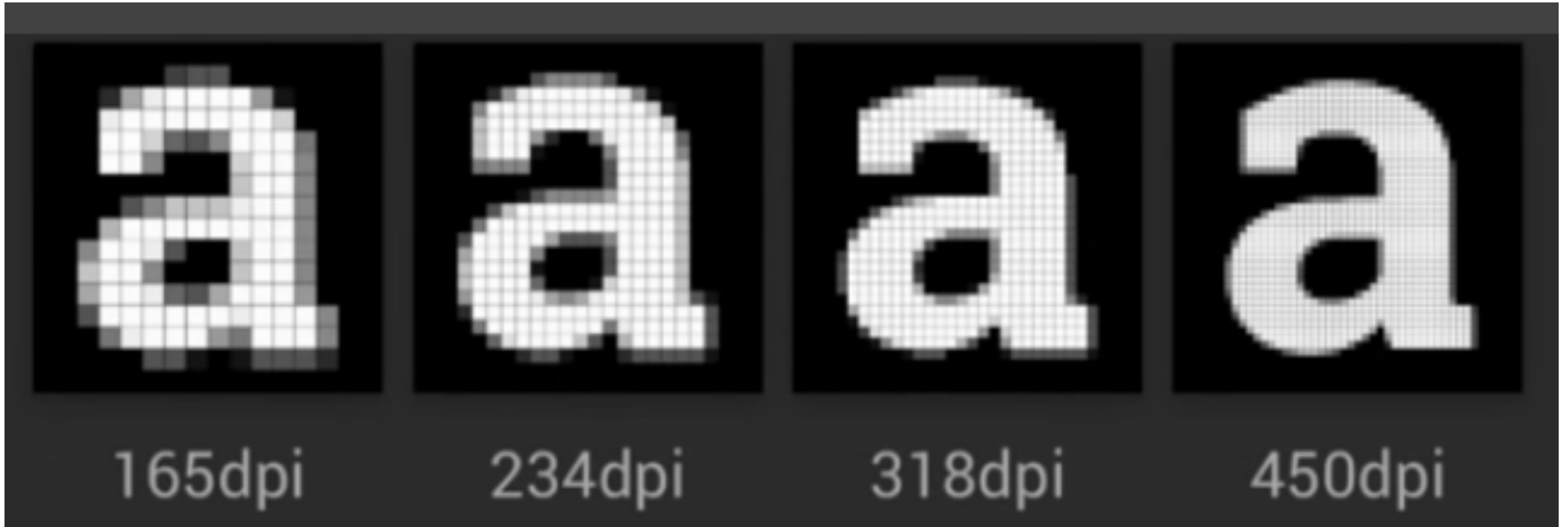
# Pixel Density

The total number of physical pixels  
in a given area

i.e. 96dpi = 96 dots per inch (dpi)



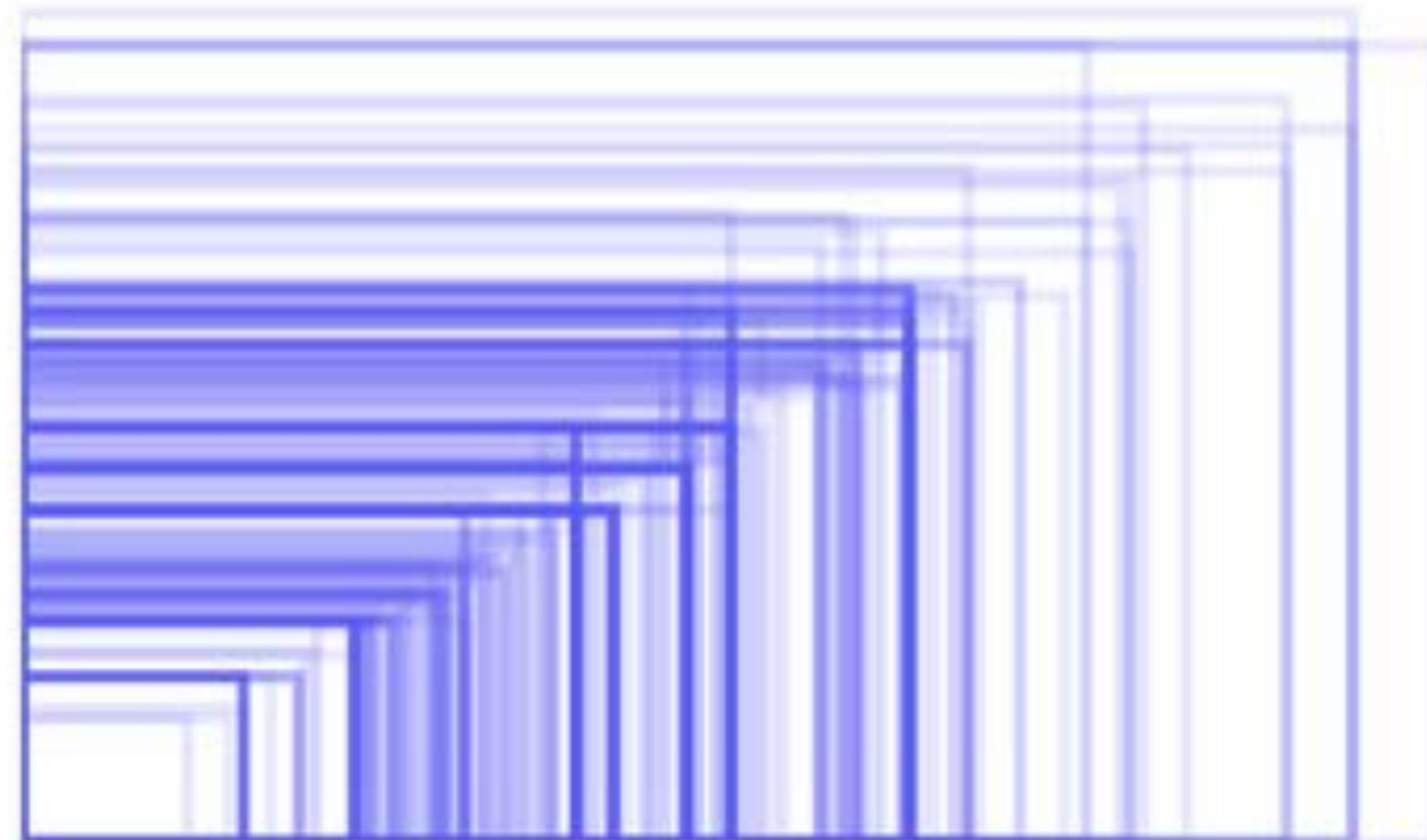
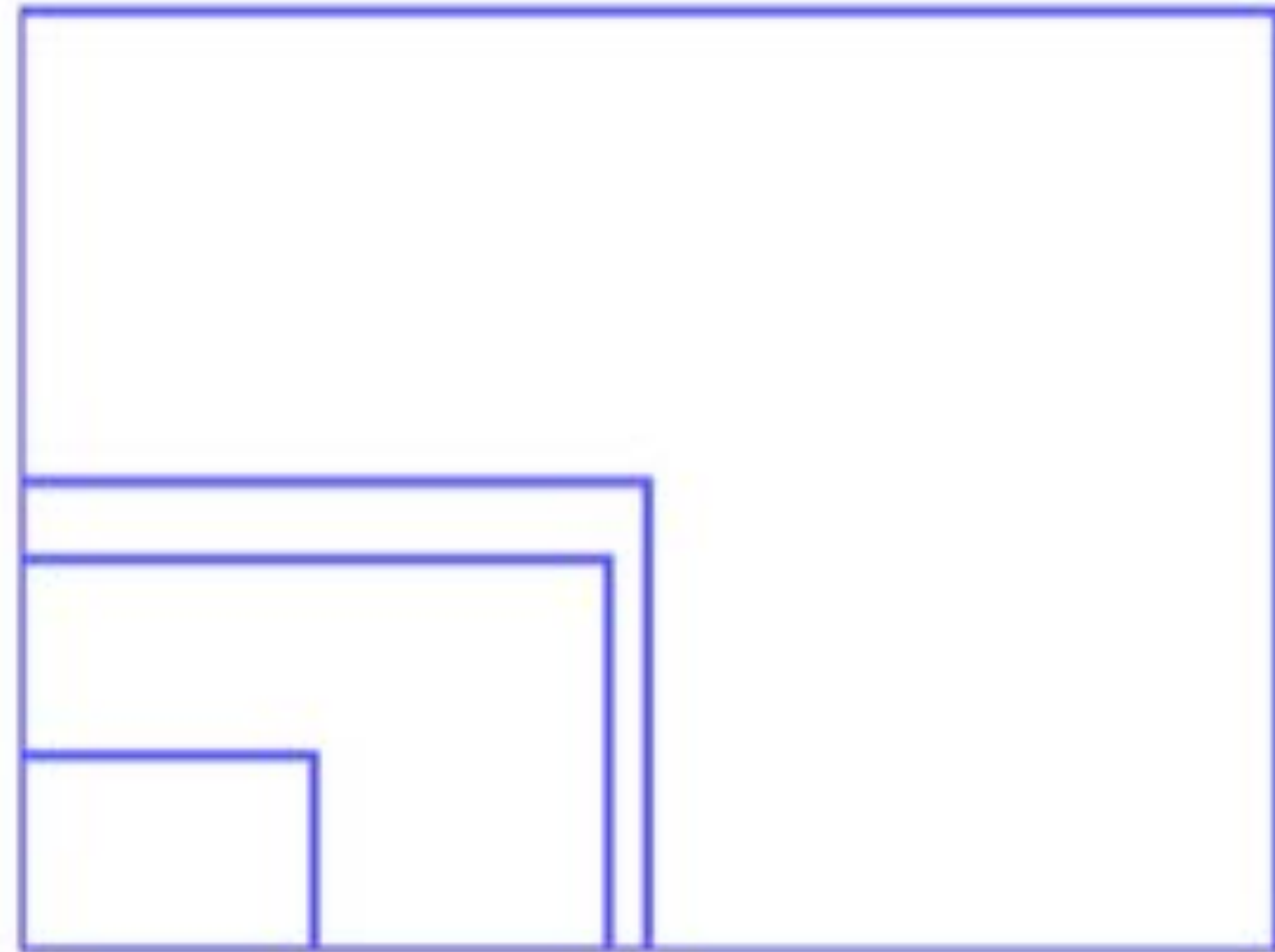
# Pixel Density



# Screen Sizes: it's a mess

iOS

vs



# Density Independent Pixels

Are flexible units that scale to uniform dimensions on any screen.

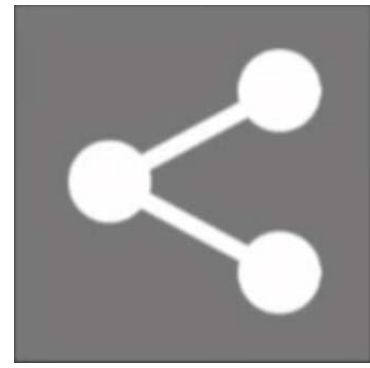
**1 dp = 1 px in 160 dpi screen**

# Density Independent Pixels

Are flexible units that scale to uniform dimensions on any screen.

$$\text{pixels} = \text{dp} * (\text{DPI} / 160)$$

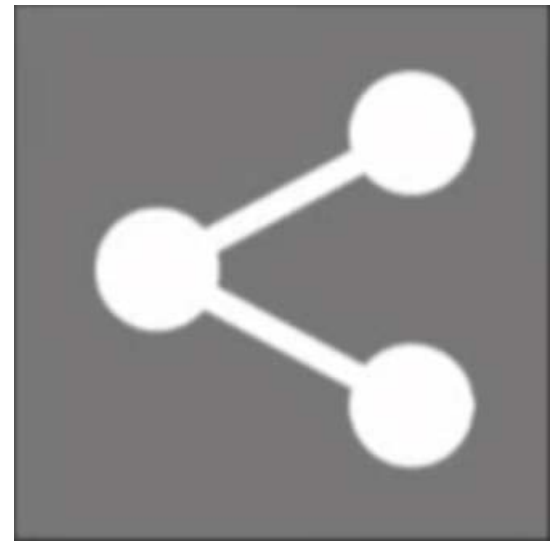
# Sizes



**MDPI**

32dp = 32px

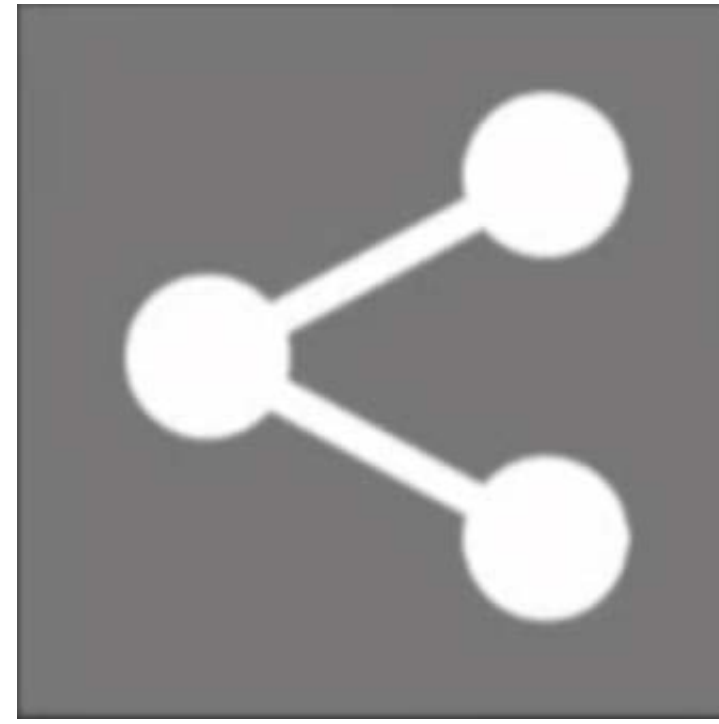
1x



**HDPI**

48px

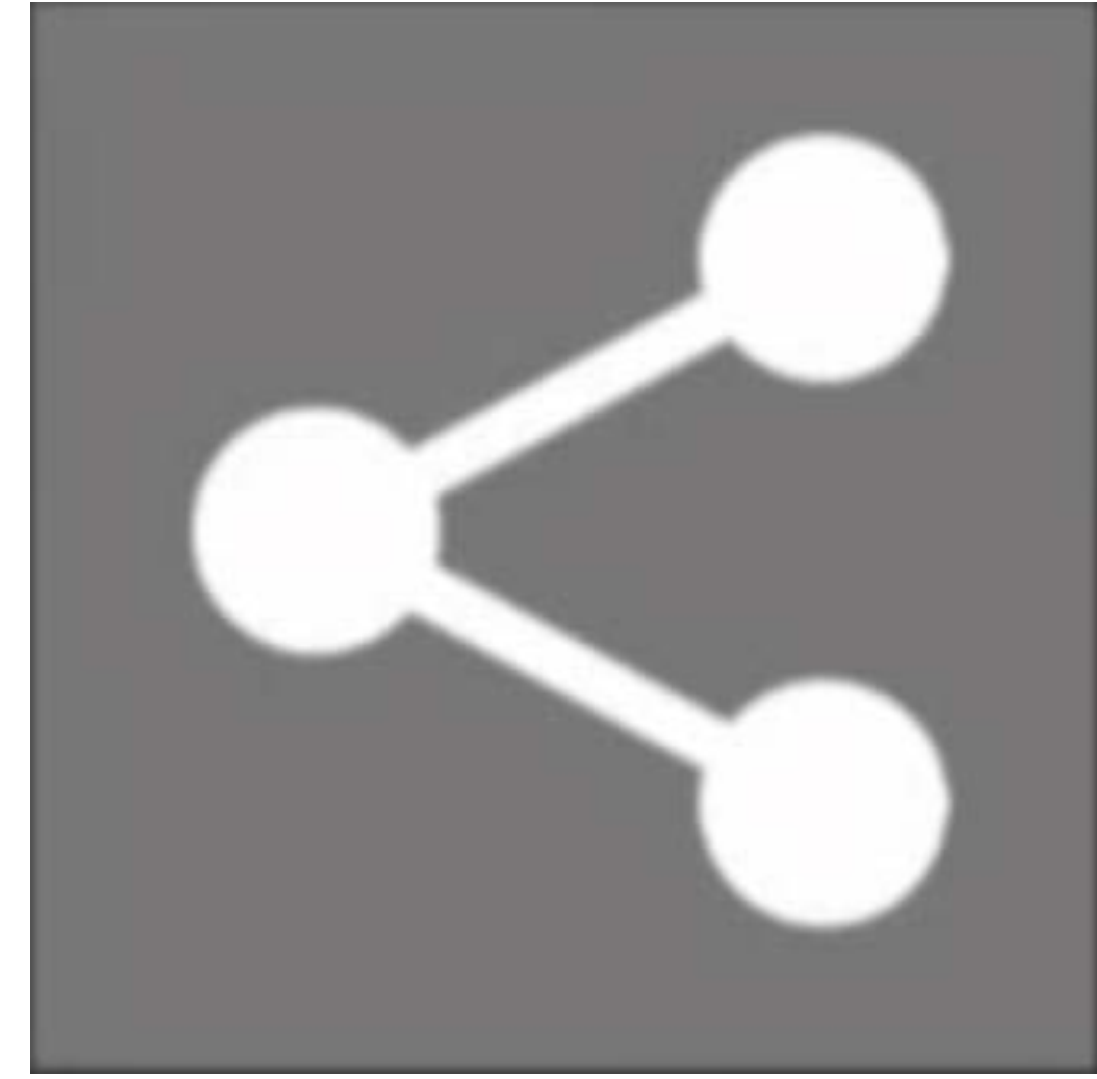
1.5x



**XDPI**

64px

2x



**XXDPI**

96px

3x

# Screen Sizes: iOS



# Screen Sizes: Android



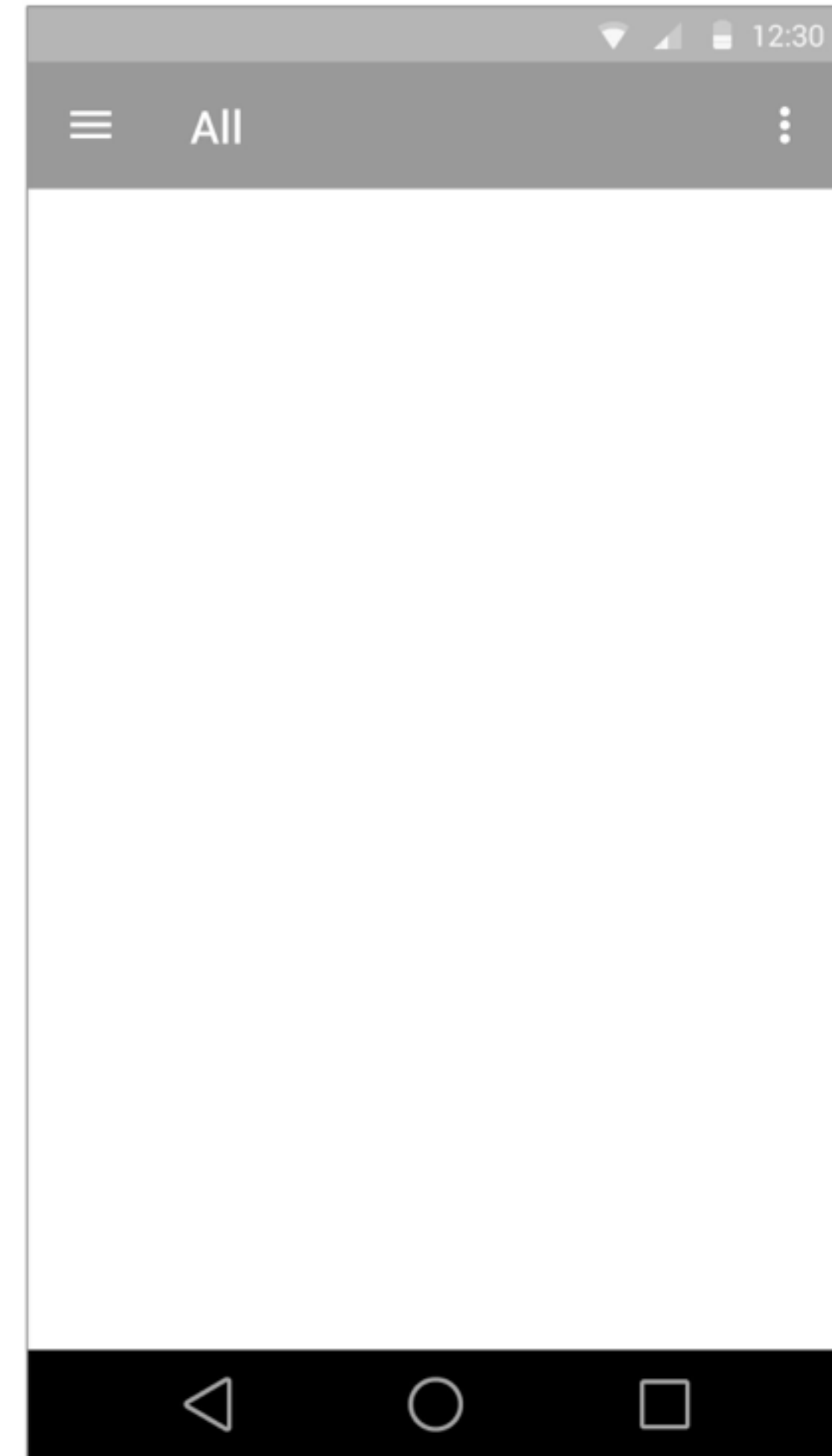
320 x 480px  
Density: MDPI



480 x 960px  
Density: XHDPI



720 x 1280px  
Density: XHDPI



1080 x 1920px  
"HD" Density: XXHDPI



# Sizes

4 basic screen densities in Android

480 = xxhdpi (extra extra)

320 = xhdpi (extra high)

240 = hdpi (high)

160 = mdpi (medium)

Retina screen densities in iOS

401ppi - 3x - iphone 6+, 6s+

326ppi - 2x - iphone 6, 6s

326ppi - 2x - iphone 5, 5s, 5c

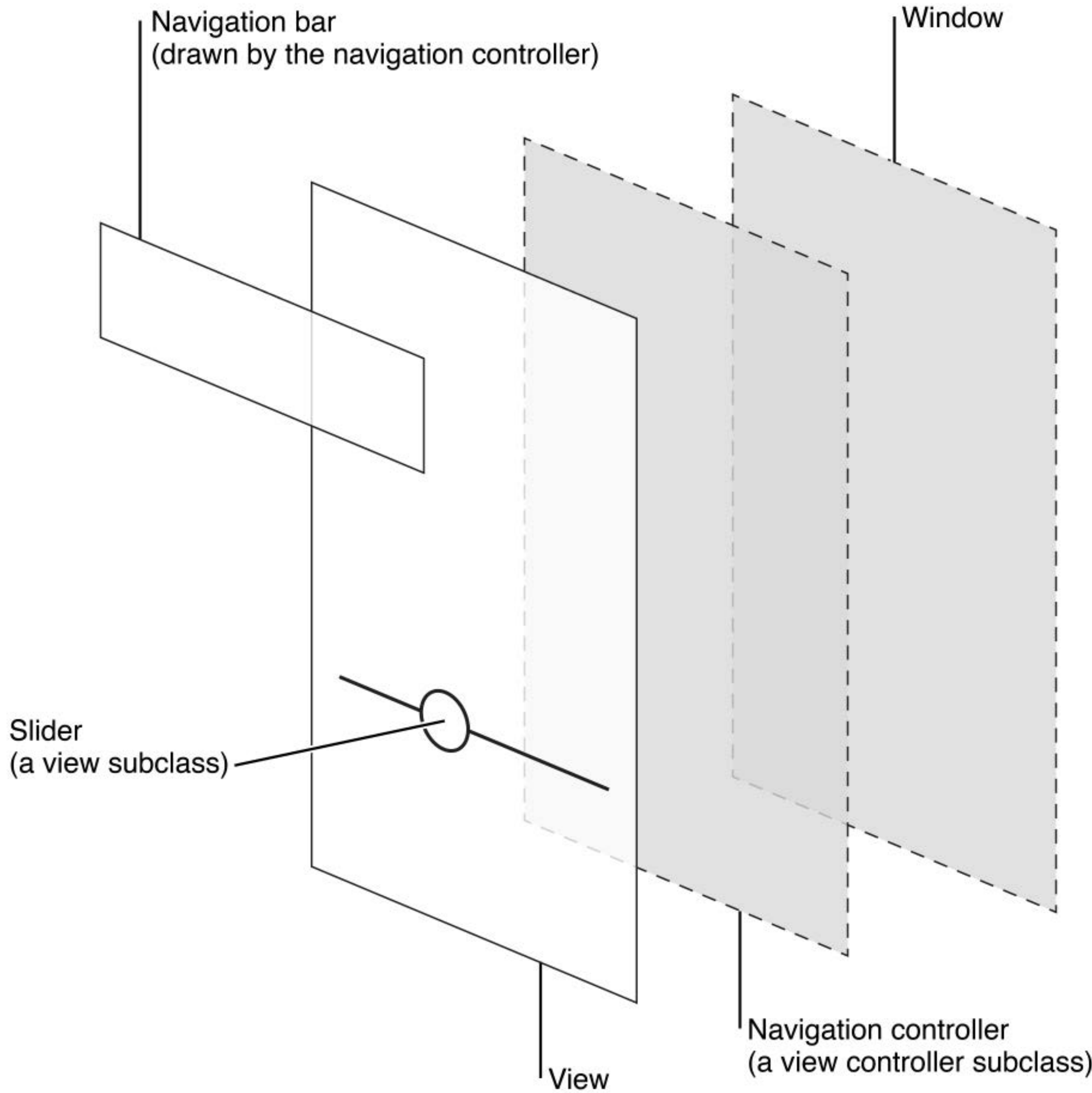
326ppi - 2x - iphone 4, 4s

163ppi - 1x - 1st, 2nd, 3rd gen

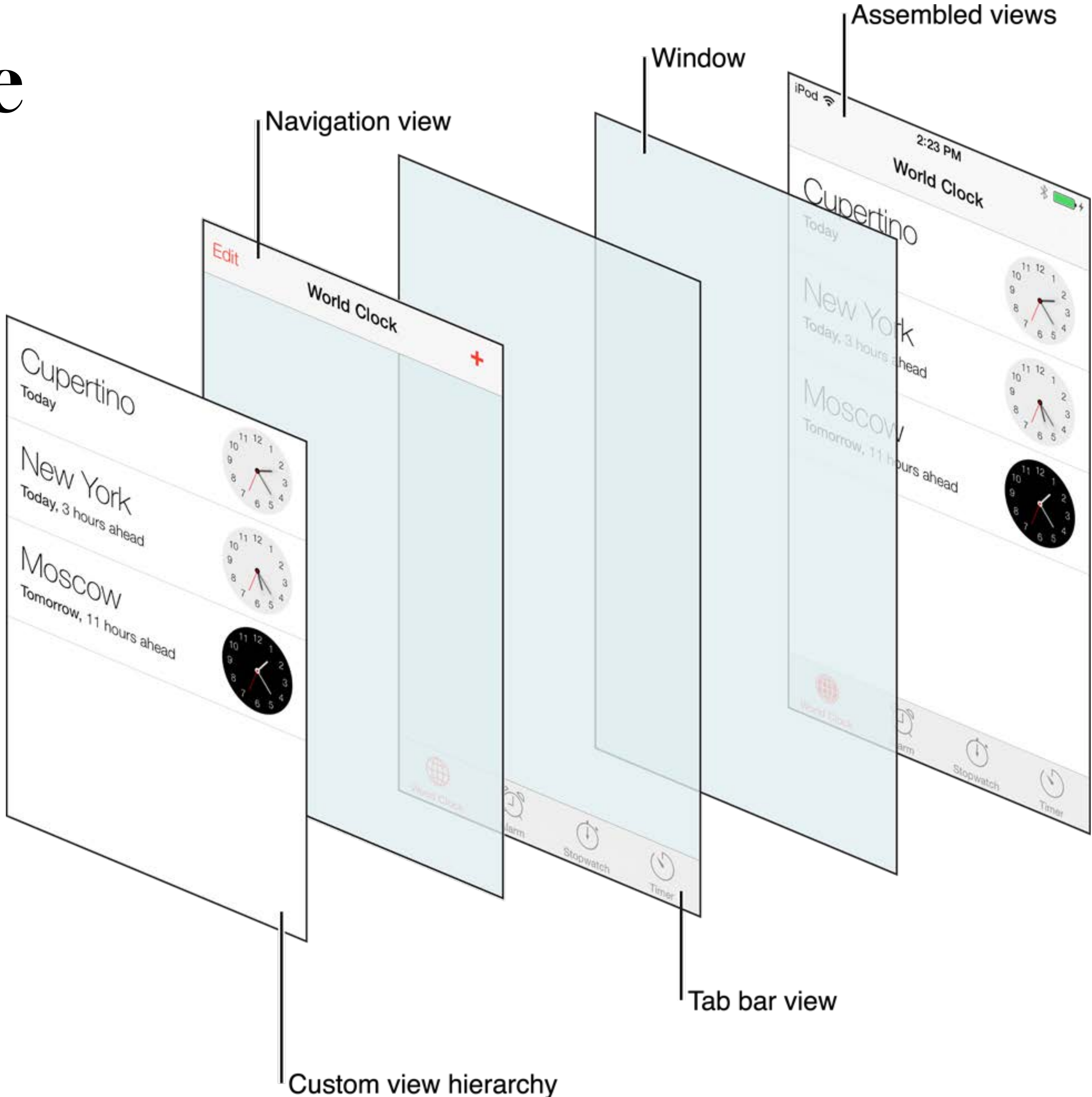
264ppi - 2x - iPad Pro, iPad Air

326ppi - 2x - iPad mini

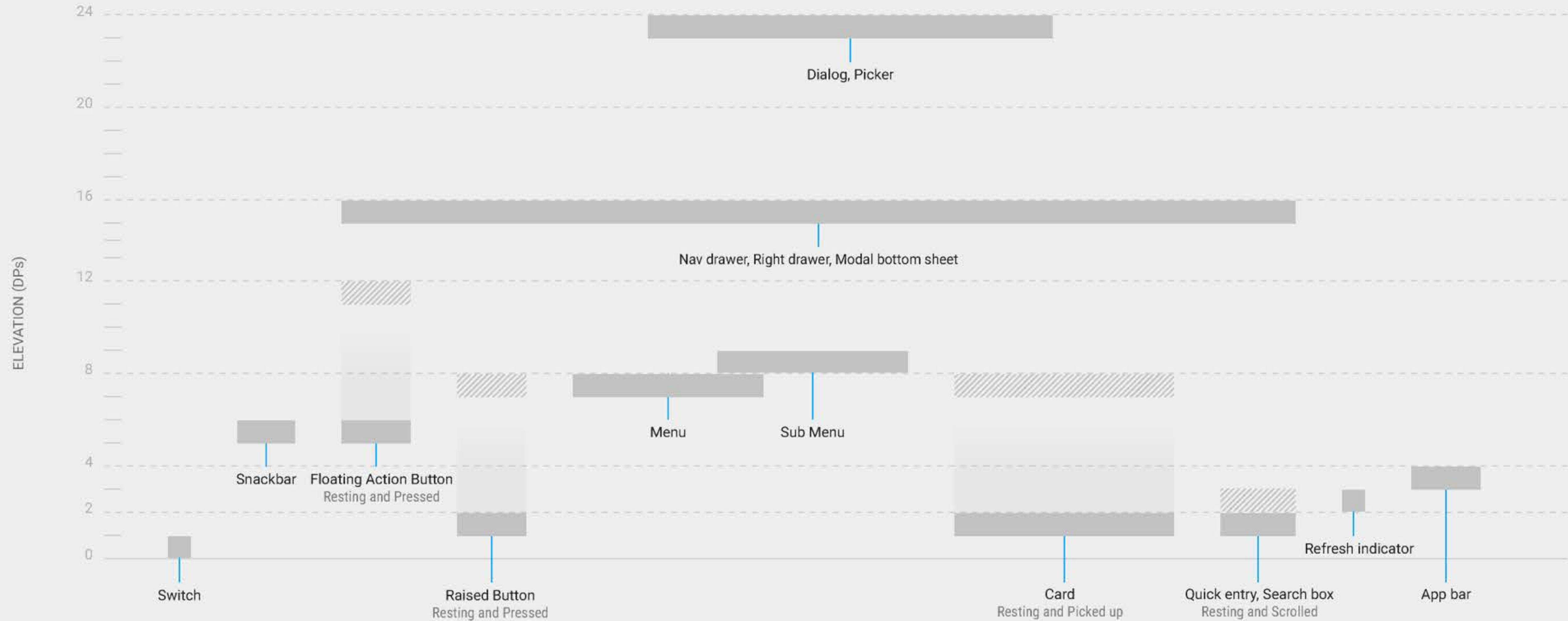
# iOS Structure



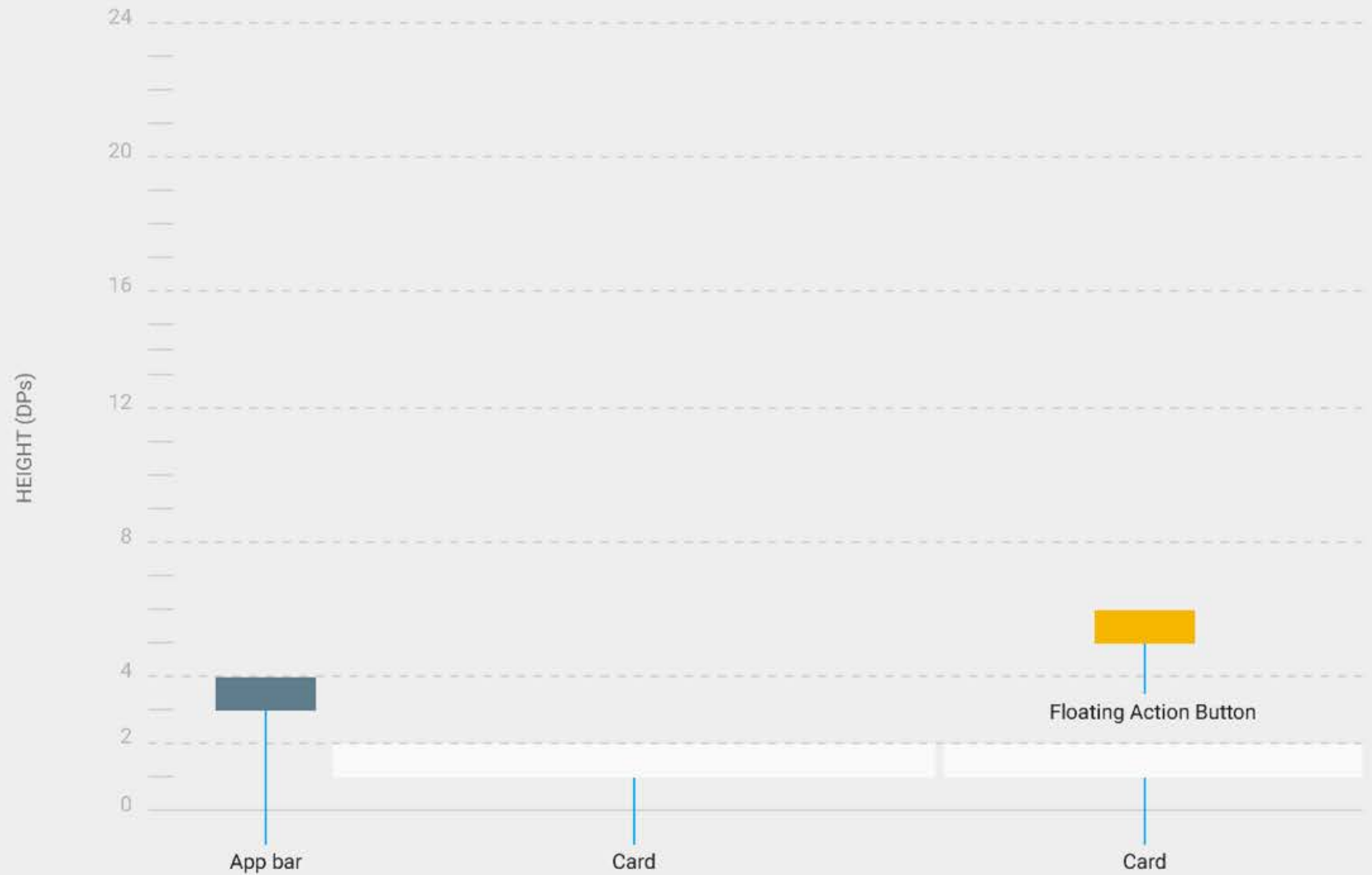
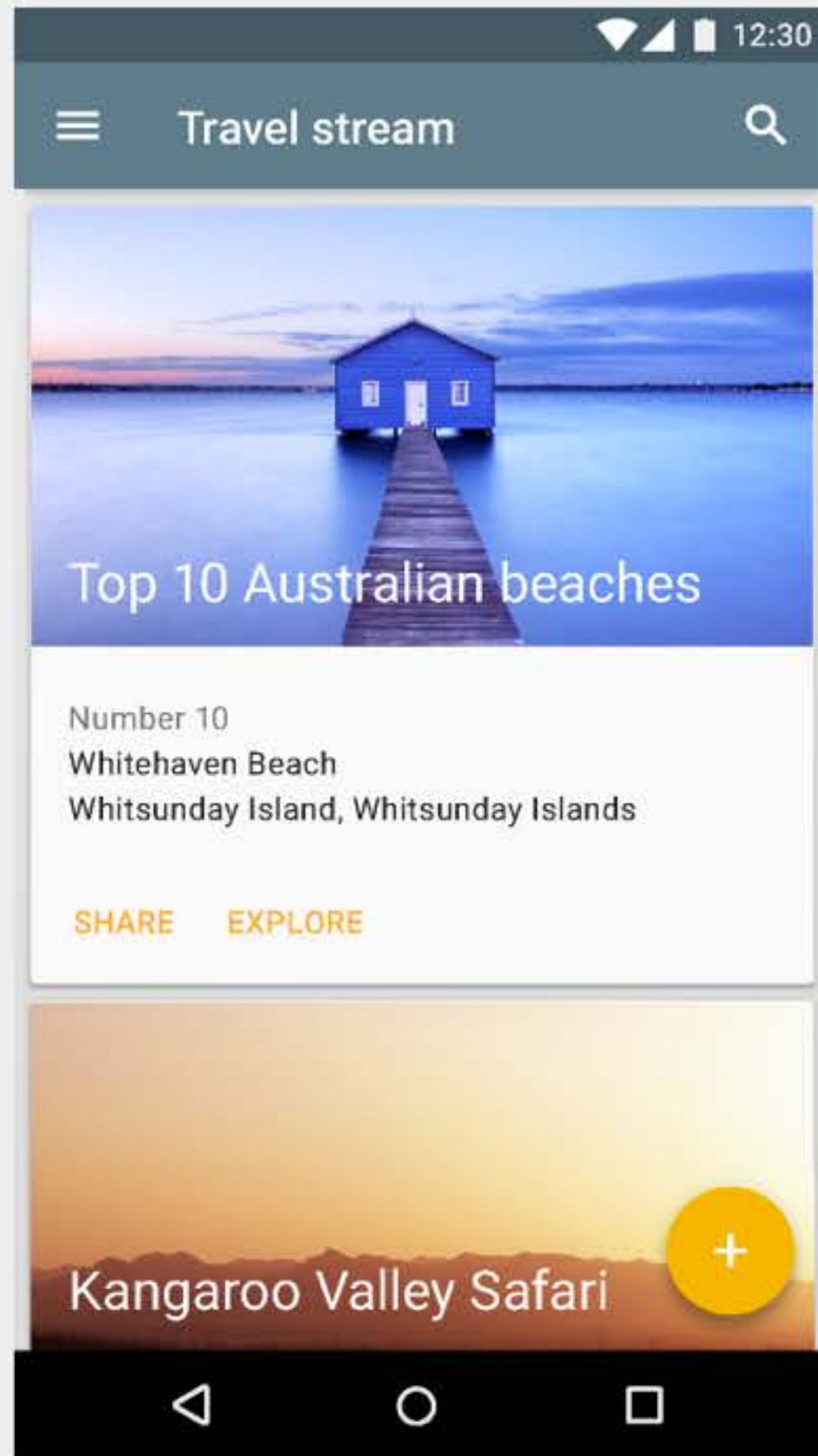
# iOS Structure



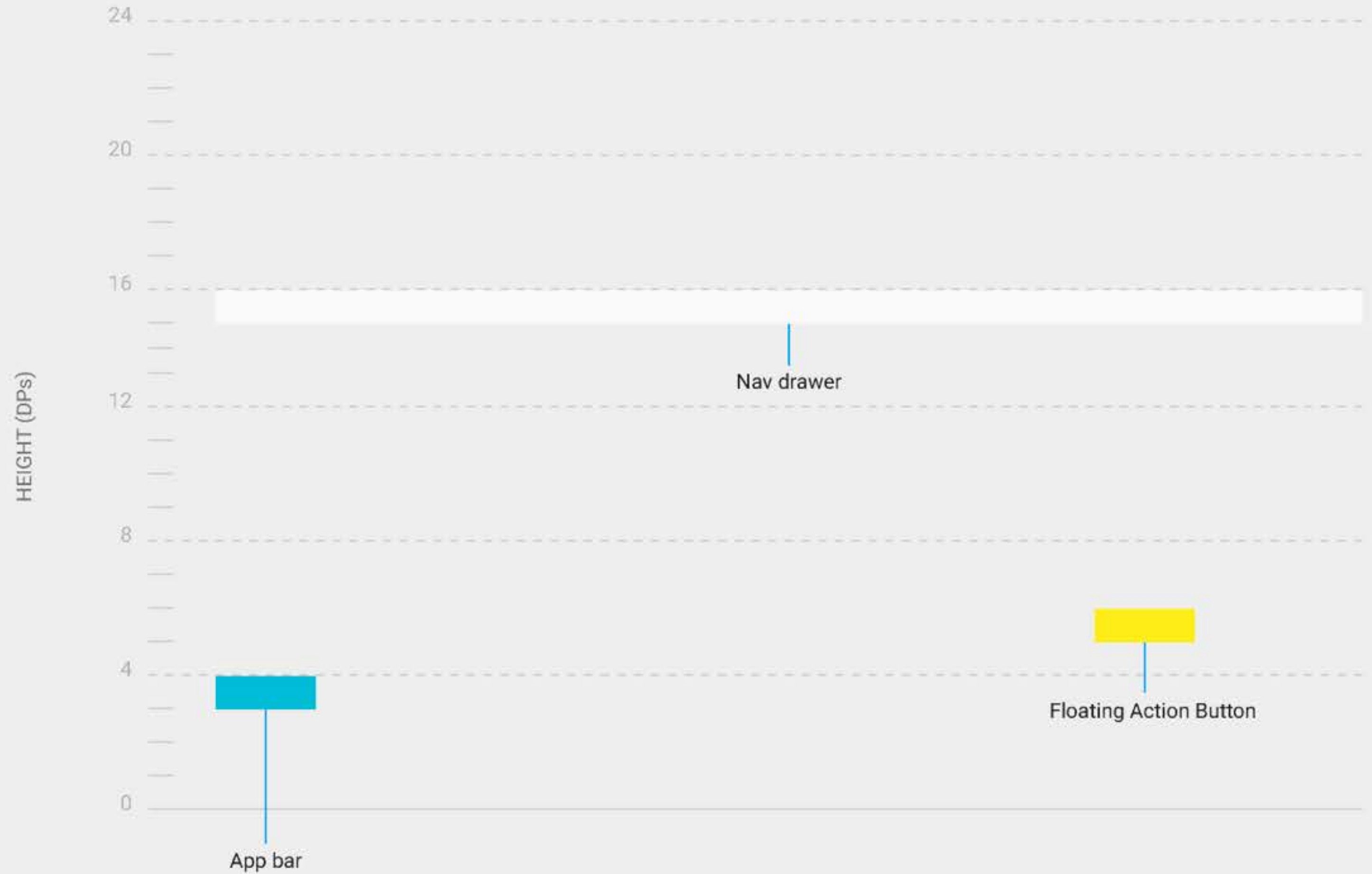
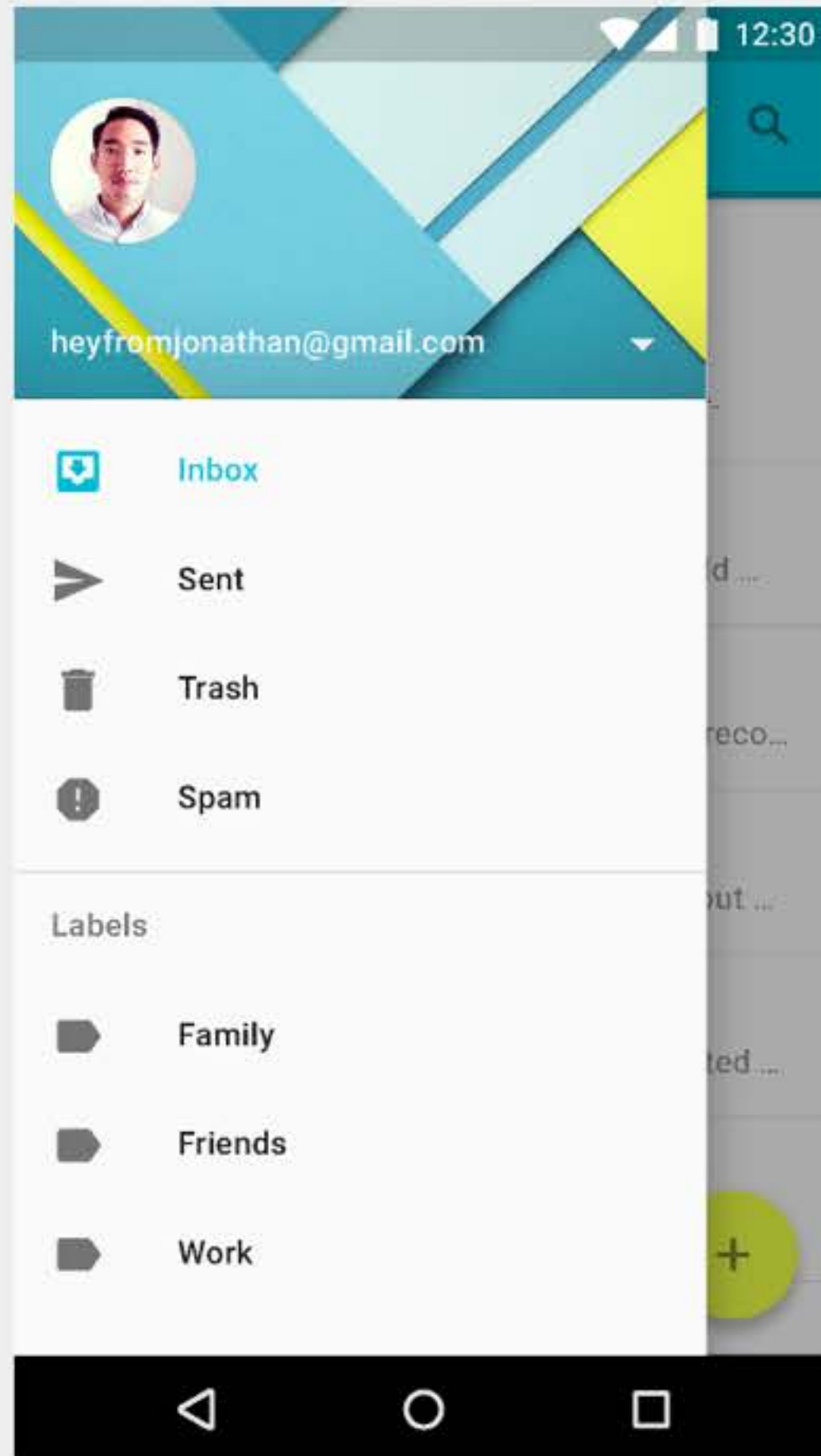
# Android Structure



# Android Structure



# Android Structure



# Typography Android

Display 4

Light 112sp

Display 3

Regular 56sp

Display 2

Regular 45sp

Display 1

Regular 34sp

Headline

Regular 24sp

Title

Medium 20sp

Subheading

Regular 16sp (Device), Regular 15sp (Desktop)

Body 2

Medium 14sp (Device), Medium 13sp (Desktop)

Body 1

Regular 14sp (Device), Regular 13sp (Desktop)

Caption

Regular 12sp

Button

**MEDIUM (ALL CAPS) 14sp**

(sp = scalable pixels)

# Typography

## Android

Display 2

Type 45sp, Leading 48pt

Display 1

Type 34sp, Leading 40pt

Headline

Type 24sp, Leading 32pt

Subheading 2

Type 15sp and 16sp, Leading 28pt

Subheading 1

Type 15sp and 16sp, Leading 24pt

Body 2

Type 13sp and 14sp, Leading 24pt

Body 1

Type 13sp and 14sp, Leading 20pt



# Typography iOS

Helvetica Neue (until it's replaced by the new San Francisco font)

iPhone 5

**Navigation Bar Title 34px**

Regular Buttons 34px

**Table Header 34px**

Table Label 28px

Tab Bar Icon Labels 22px

iPhone 6

**Navigation Bar Title 34px**

Regular Buttons 34px

**Table Header 34px**

Table Label 28px

Tab Bar Icon Labels 22px

iPhone 6

**Navigation Bar Title 48px**

Regular Buttons 48px

**Table Header 48px**

Table Label 44px

Tab Bar Icon Labels 30px

Medium

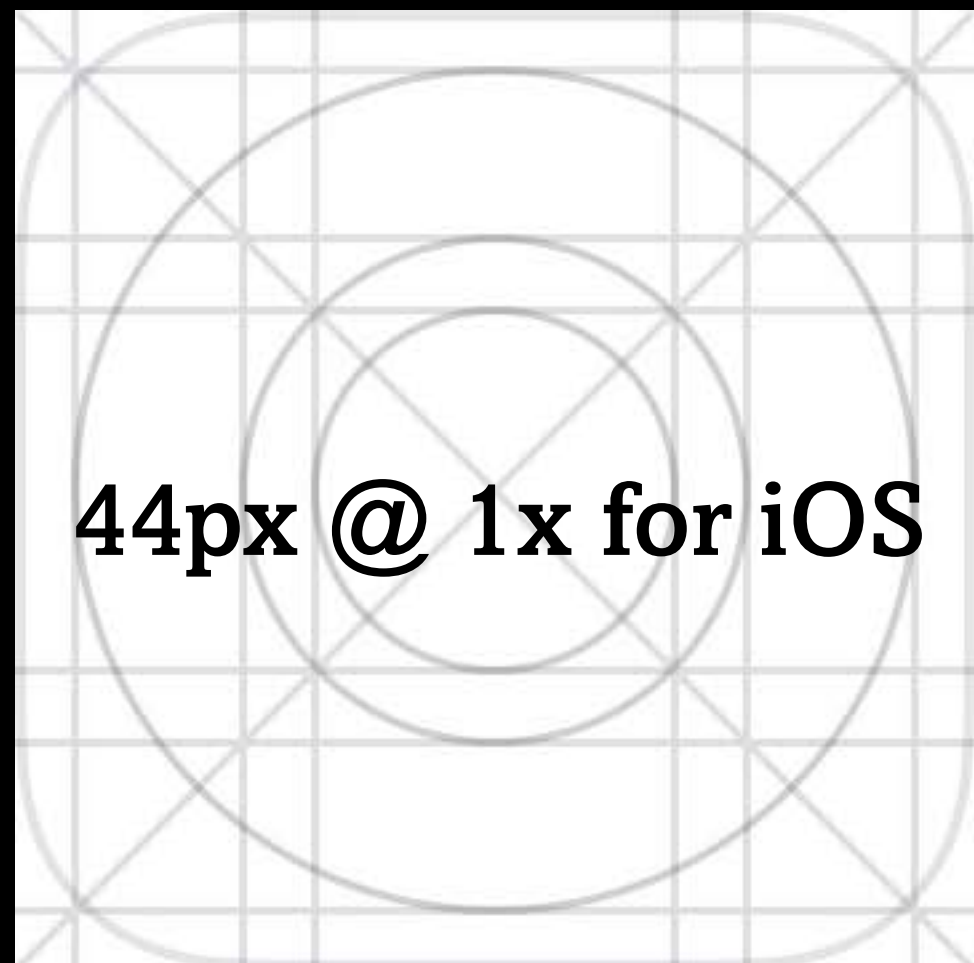
Light

Bold

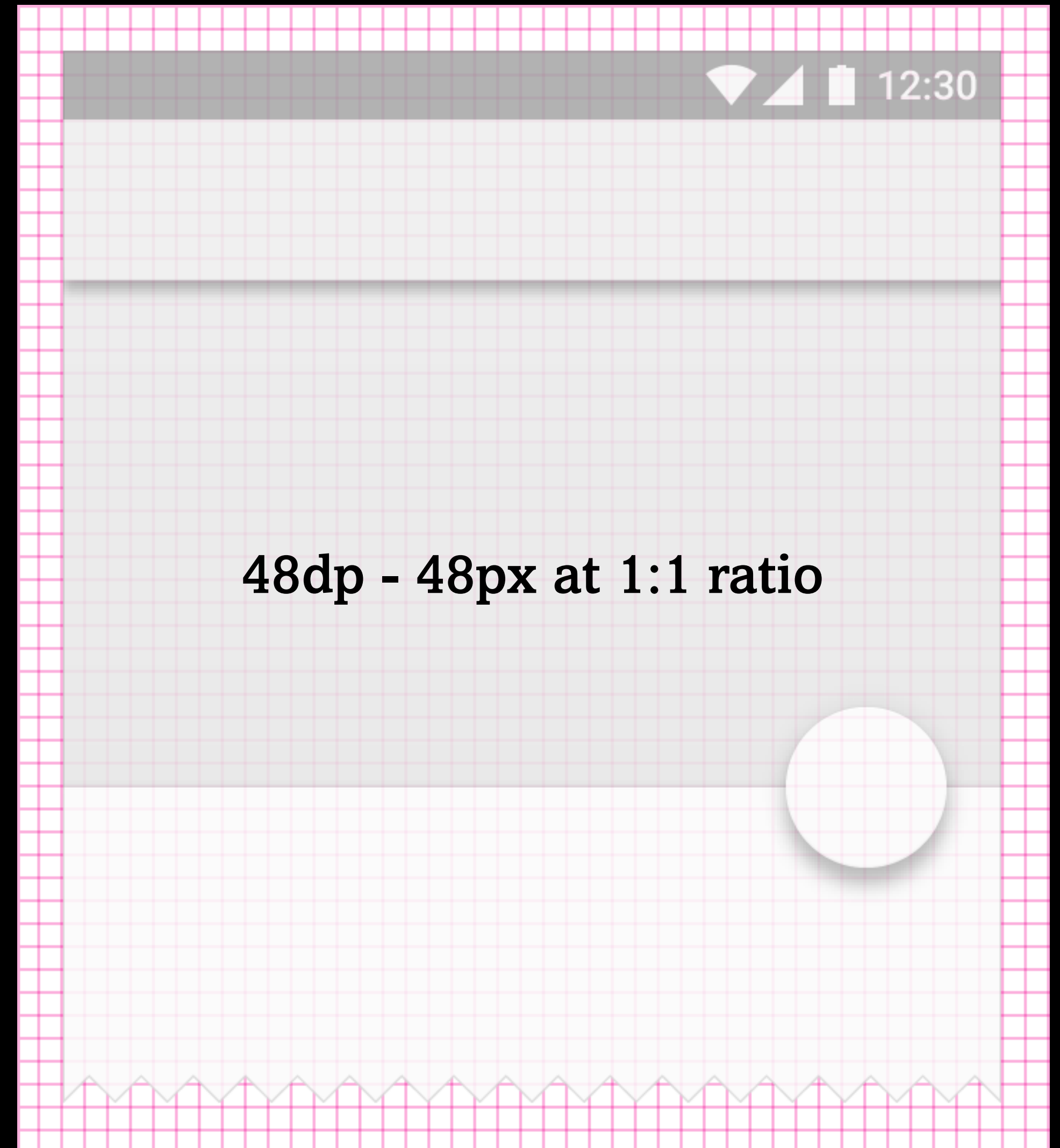
Regular

Regular

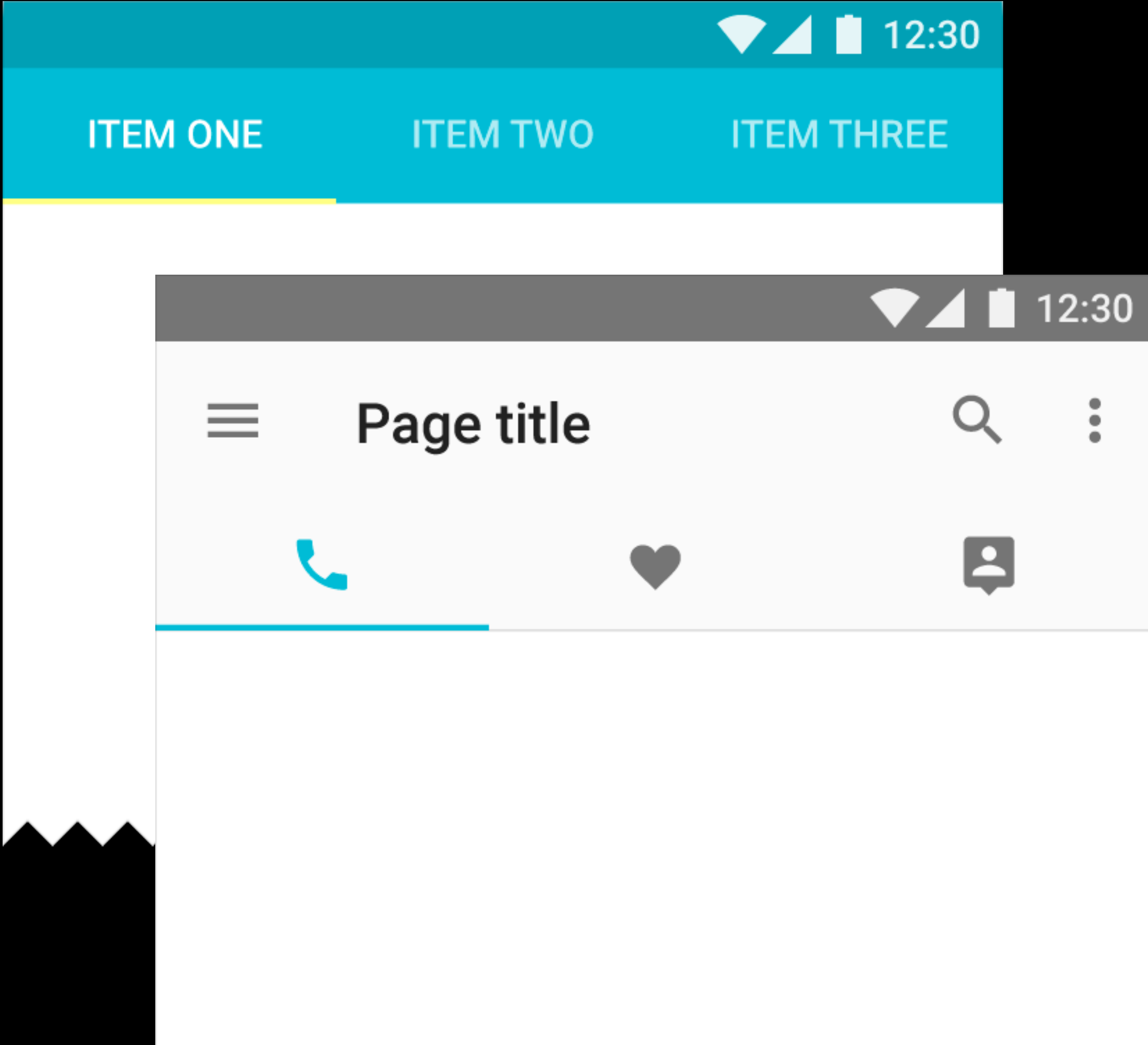
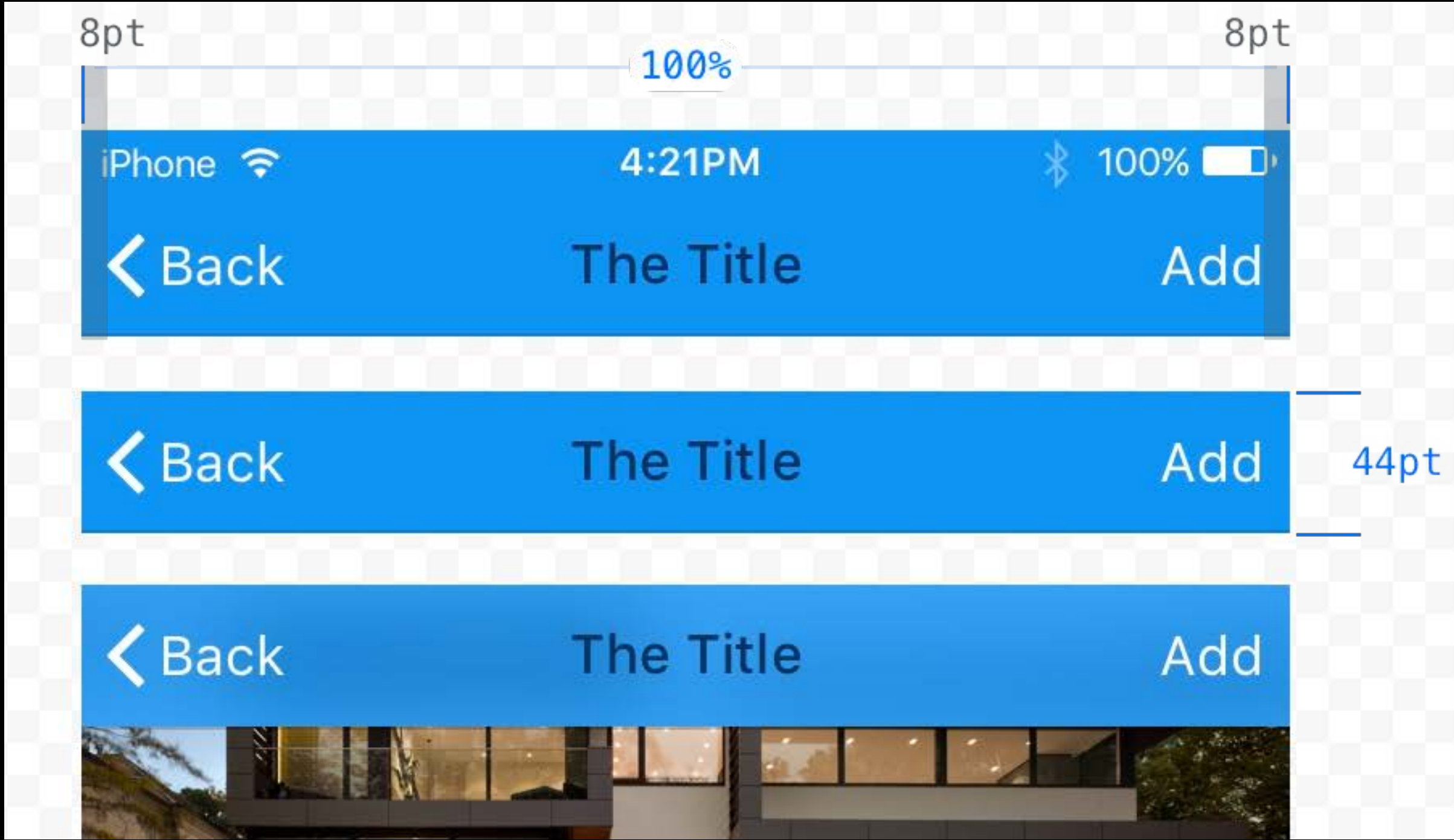
# Grids and Touch Targets



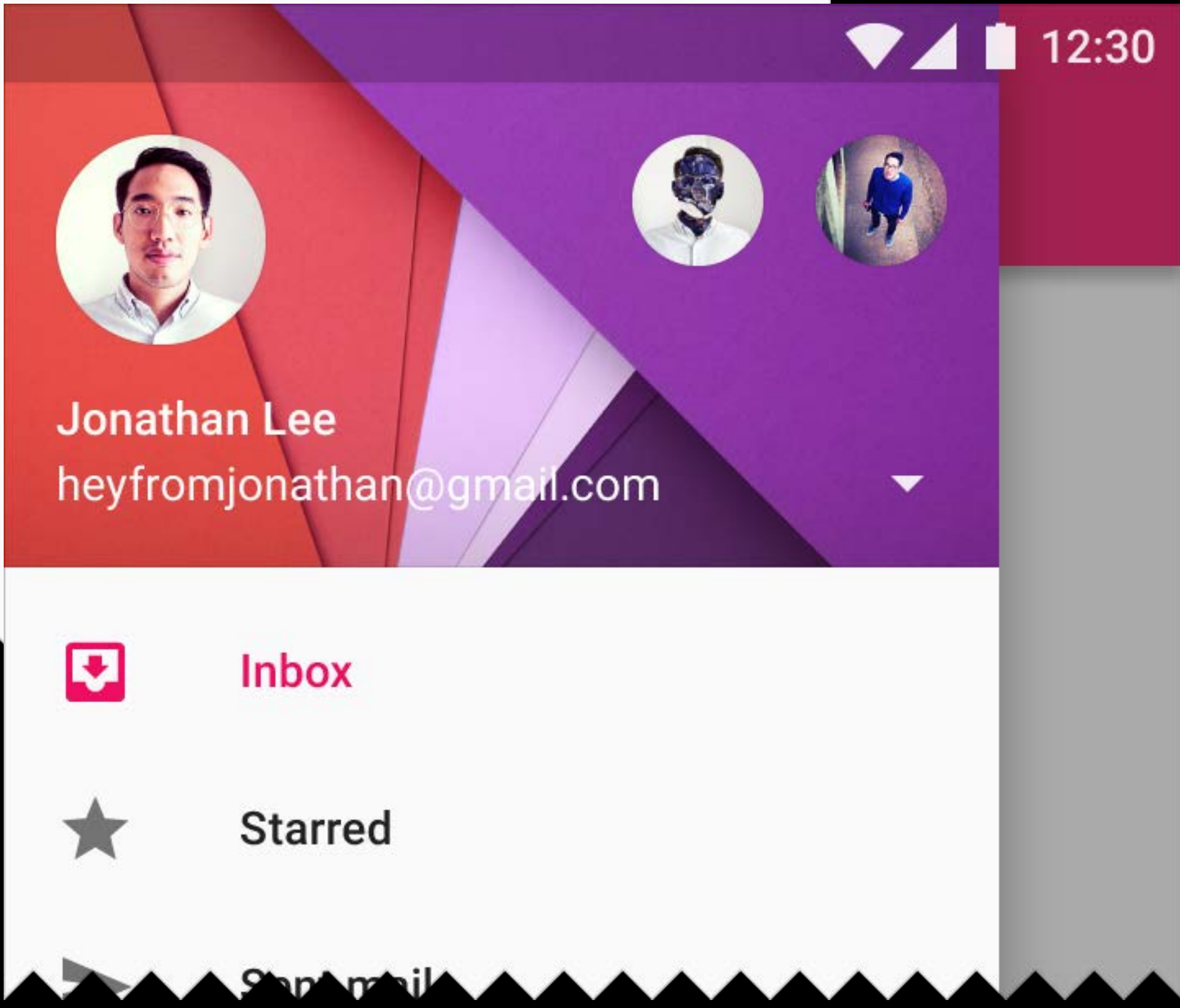
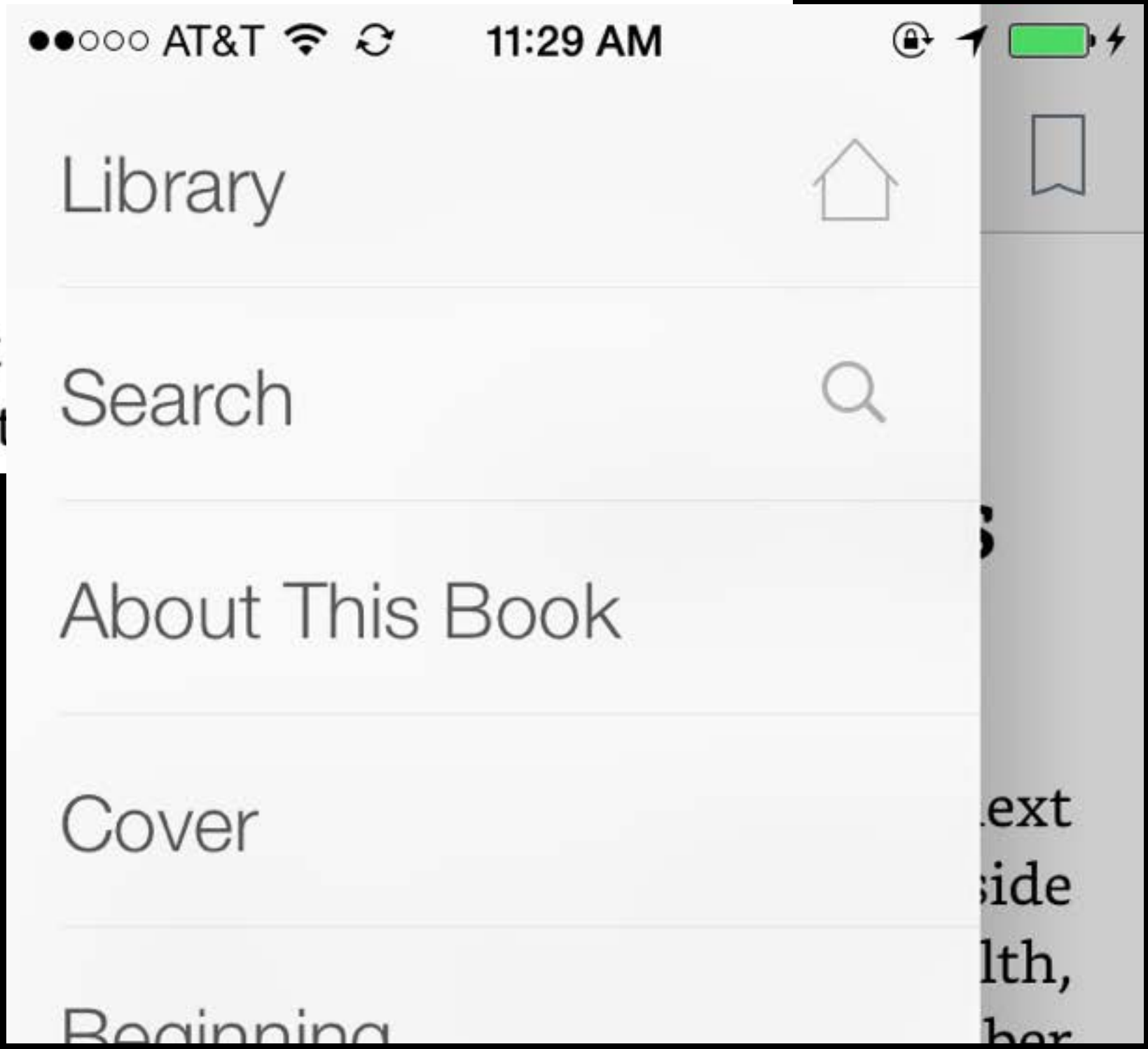
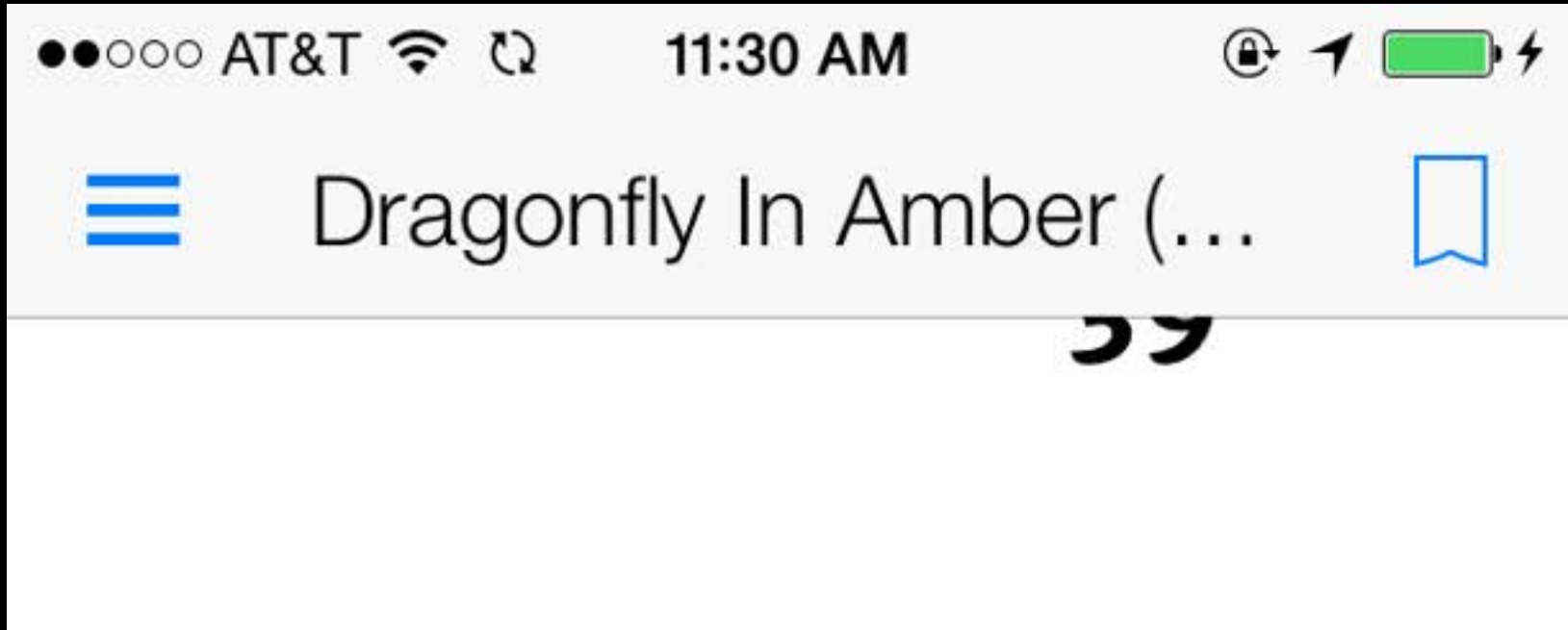
**44x44 is the recommended  
tap target on iOS**



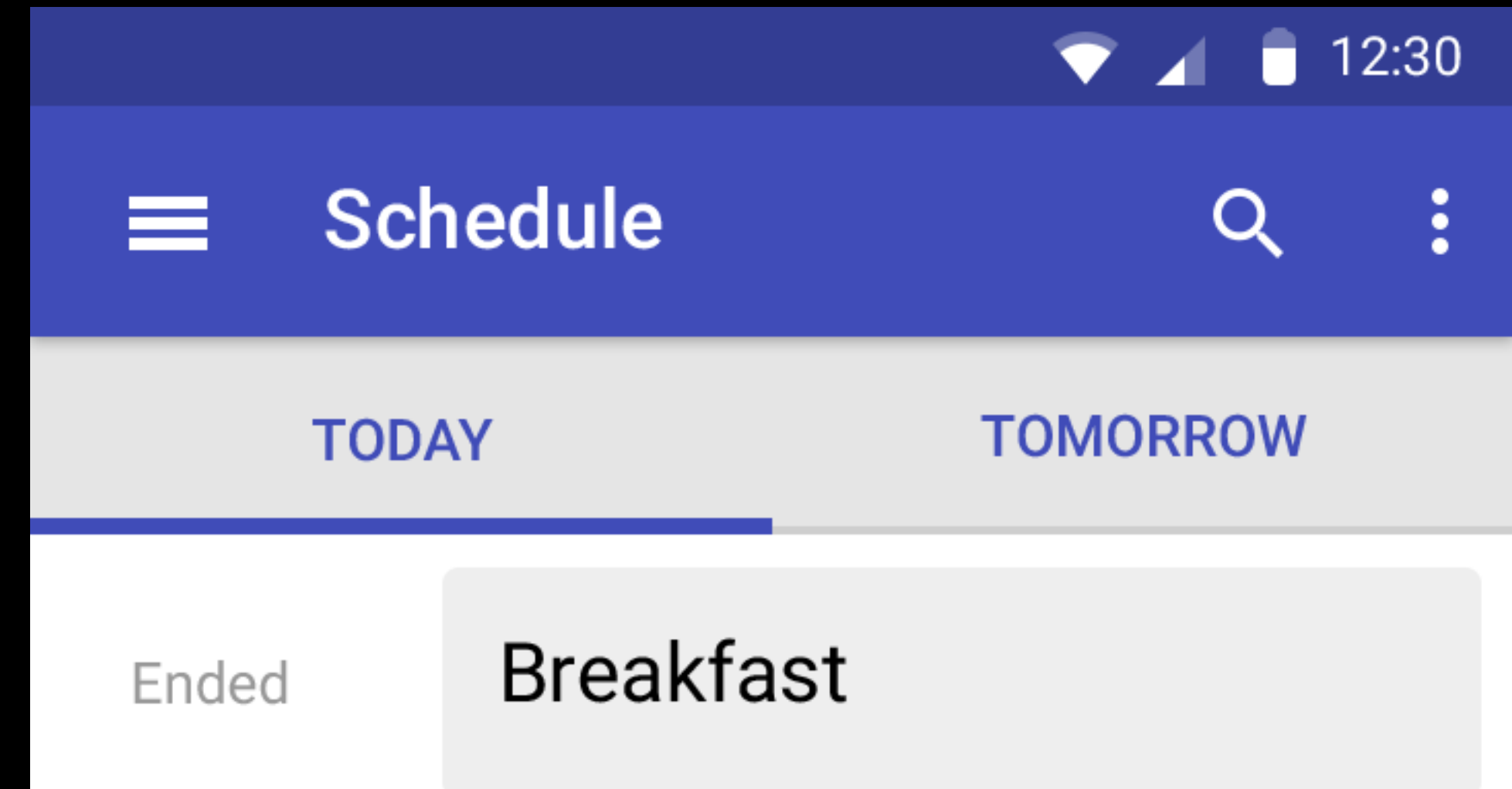
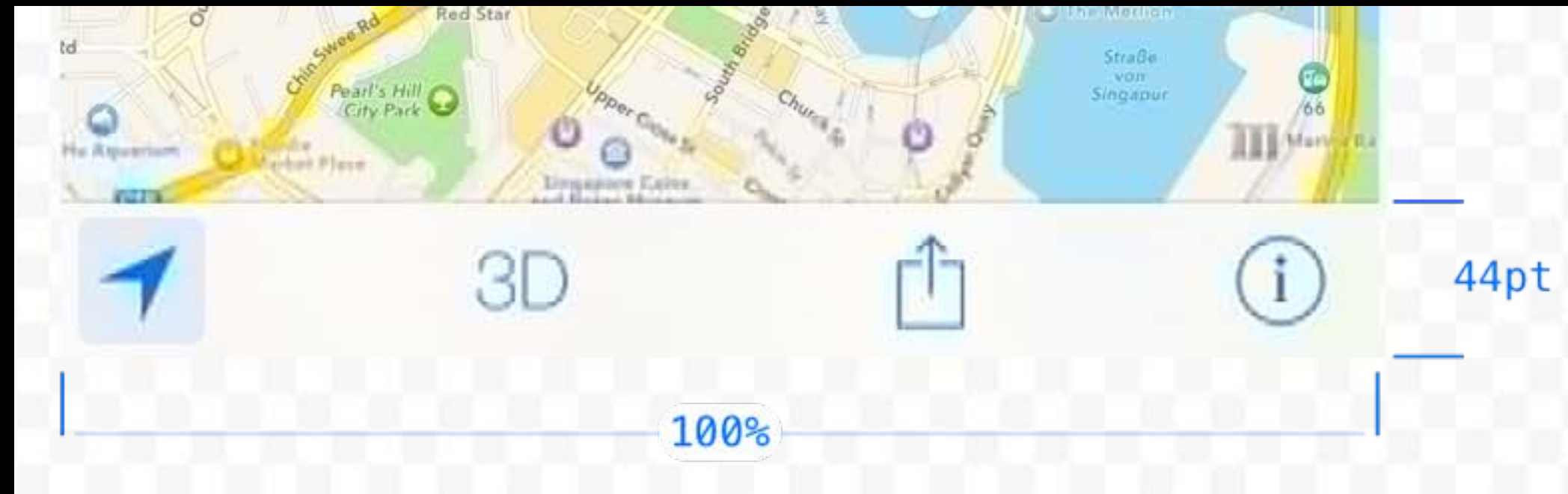
# Navigation



# Navigation Drawer



# Toolbar



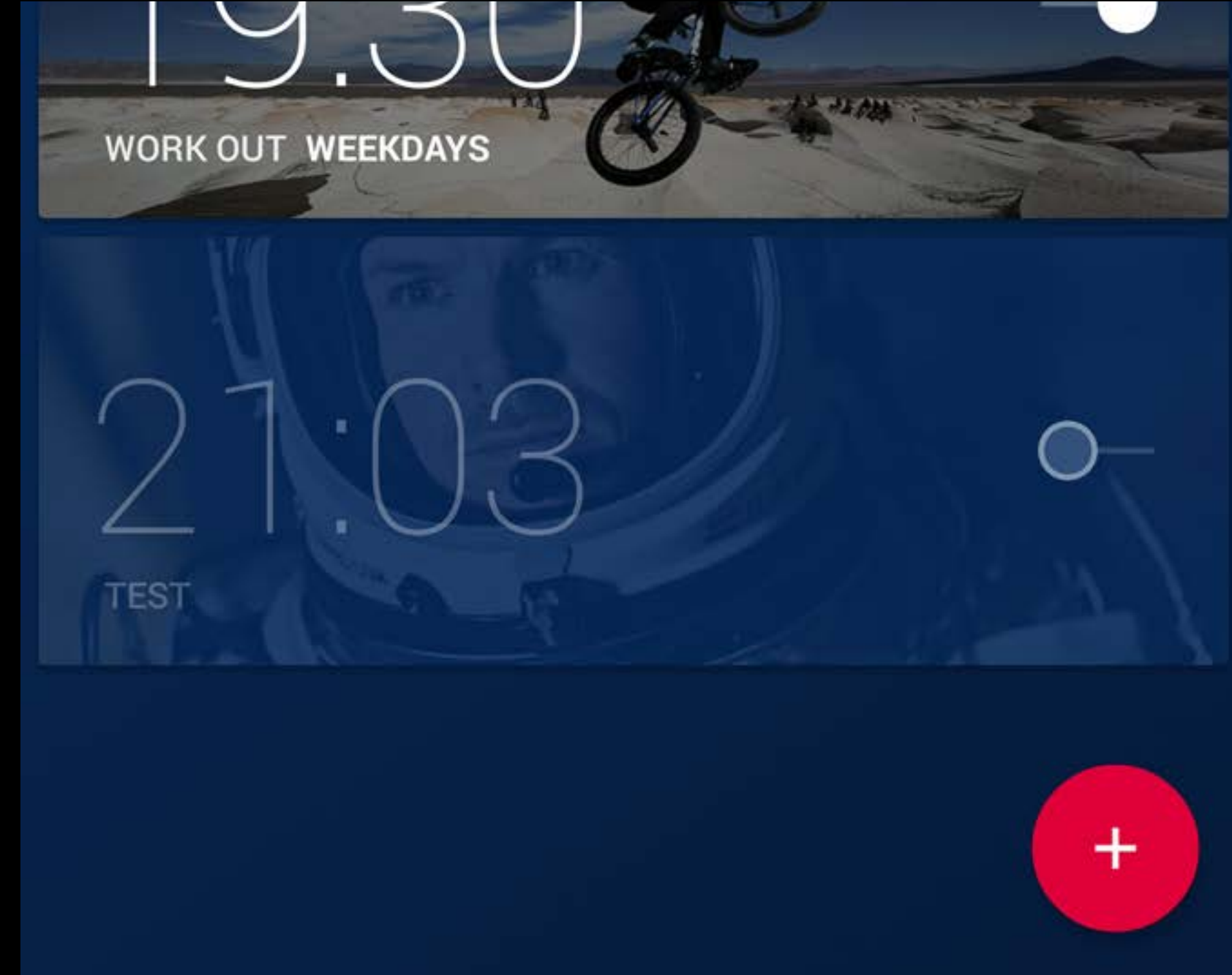
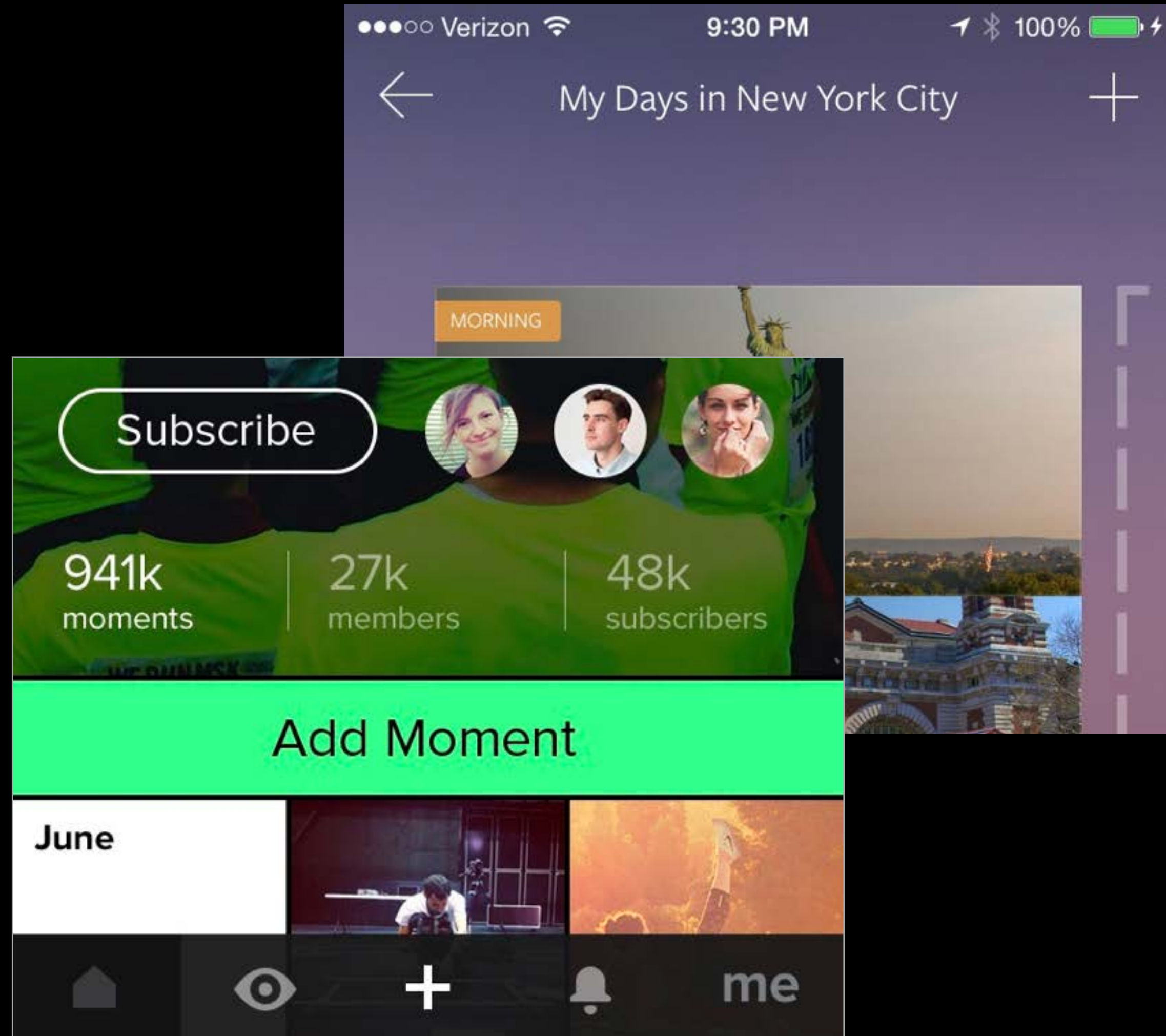
Status bar

Toolbar

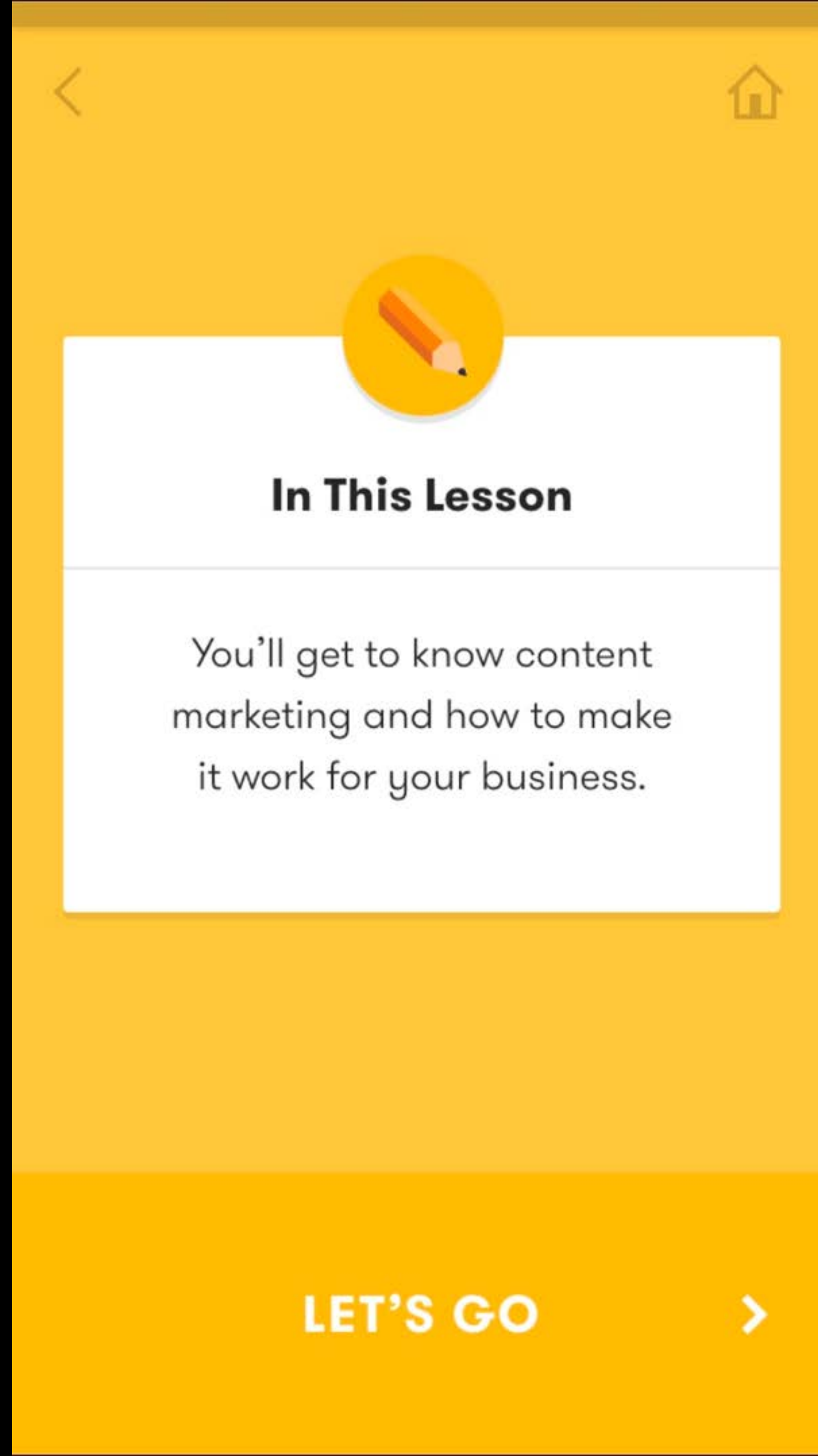
Tab / search bar

Flexible space

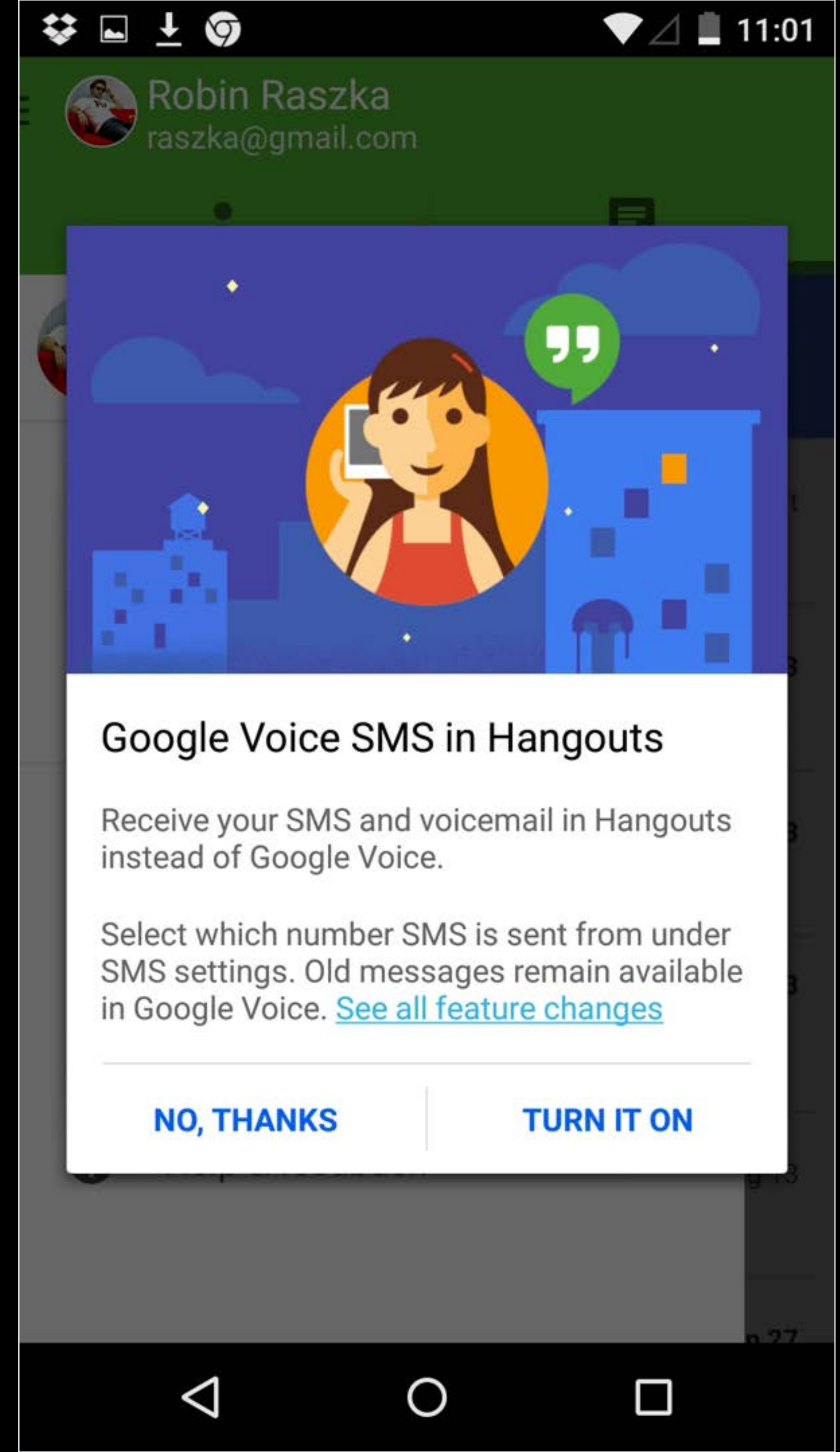
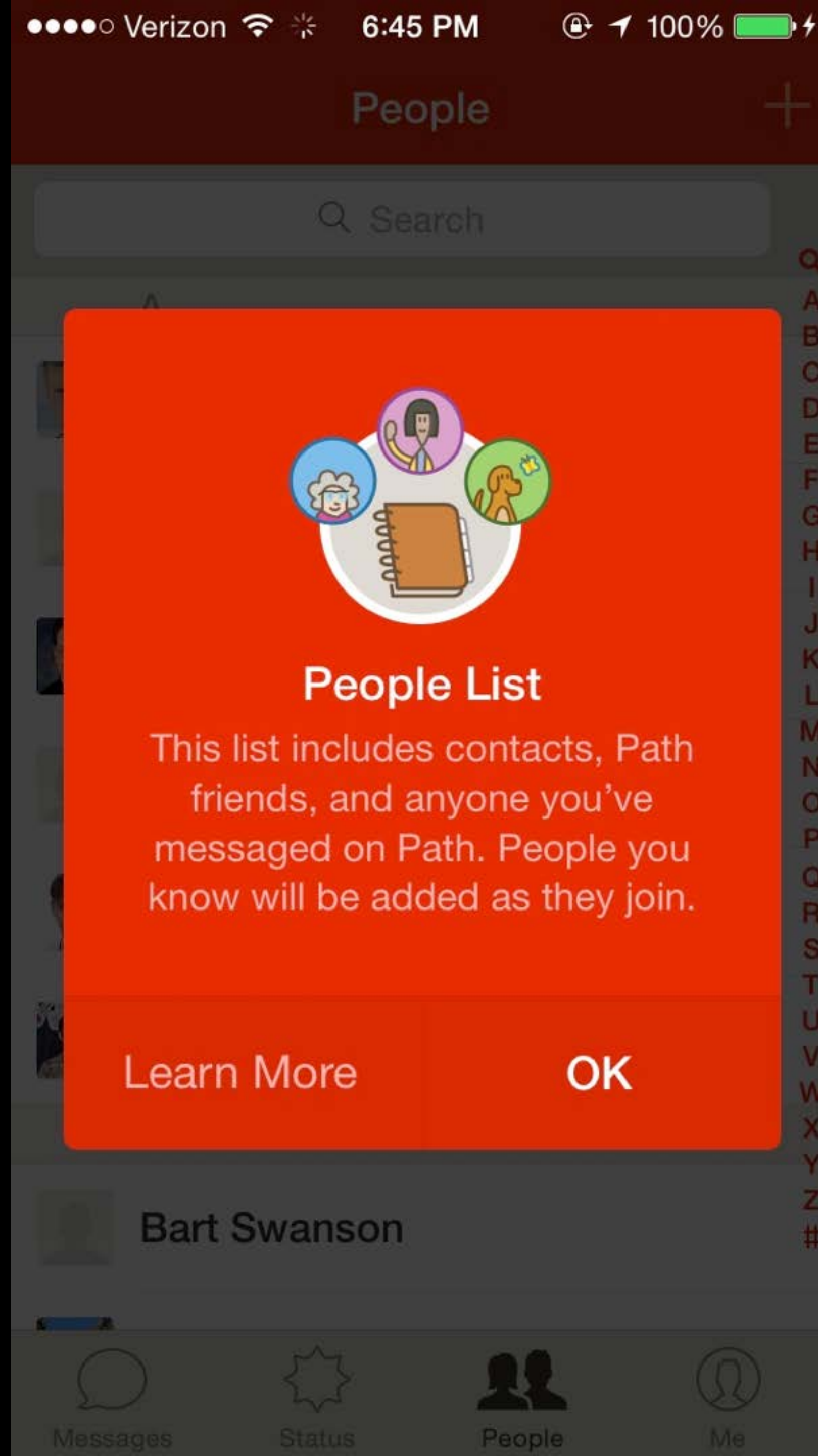
# Add button



# Cards

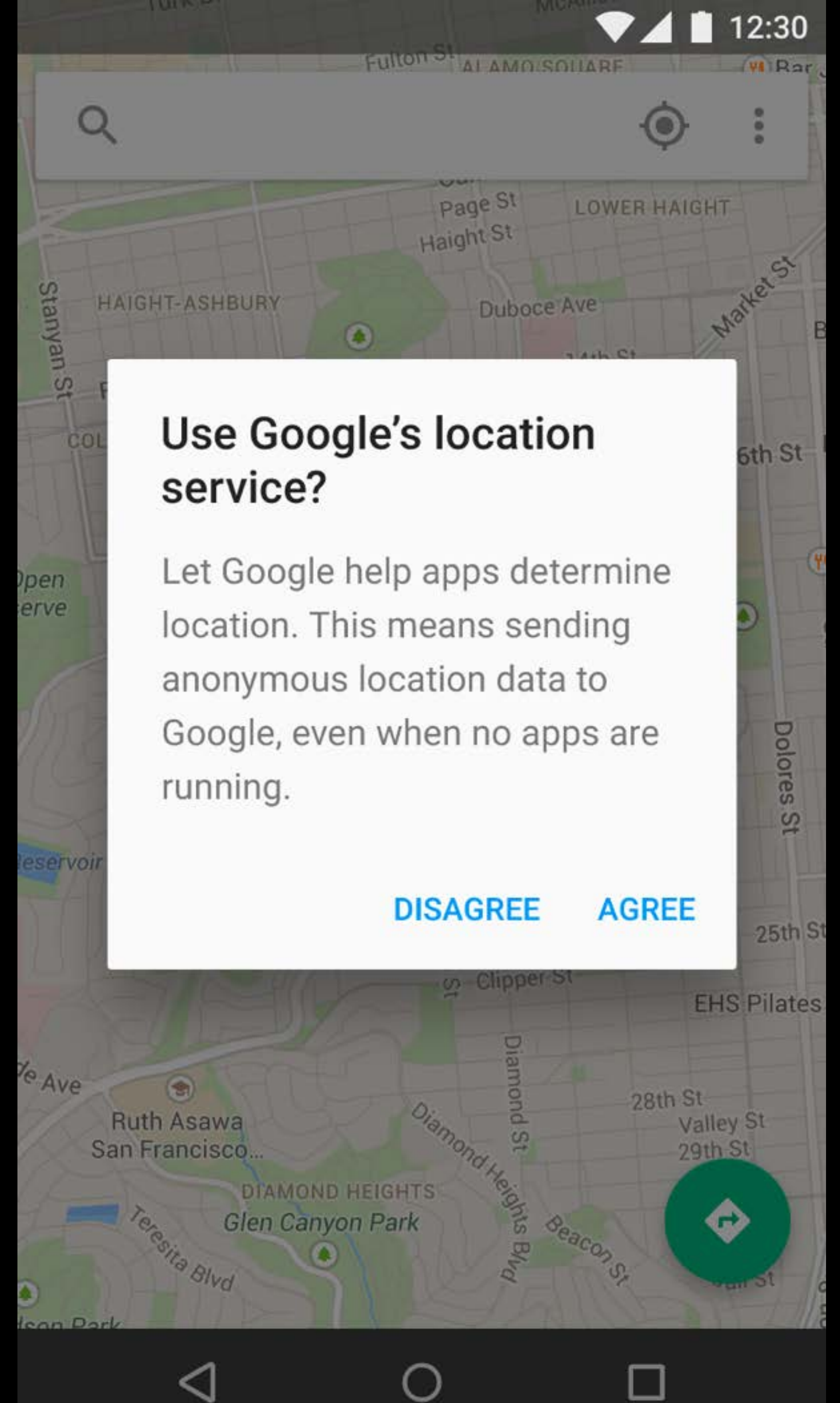
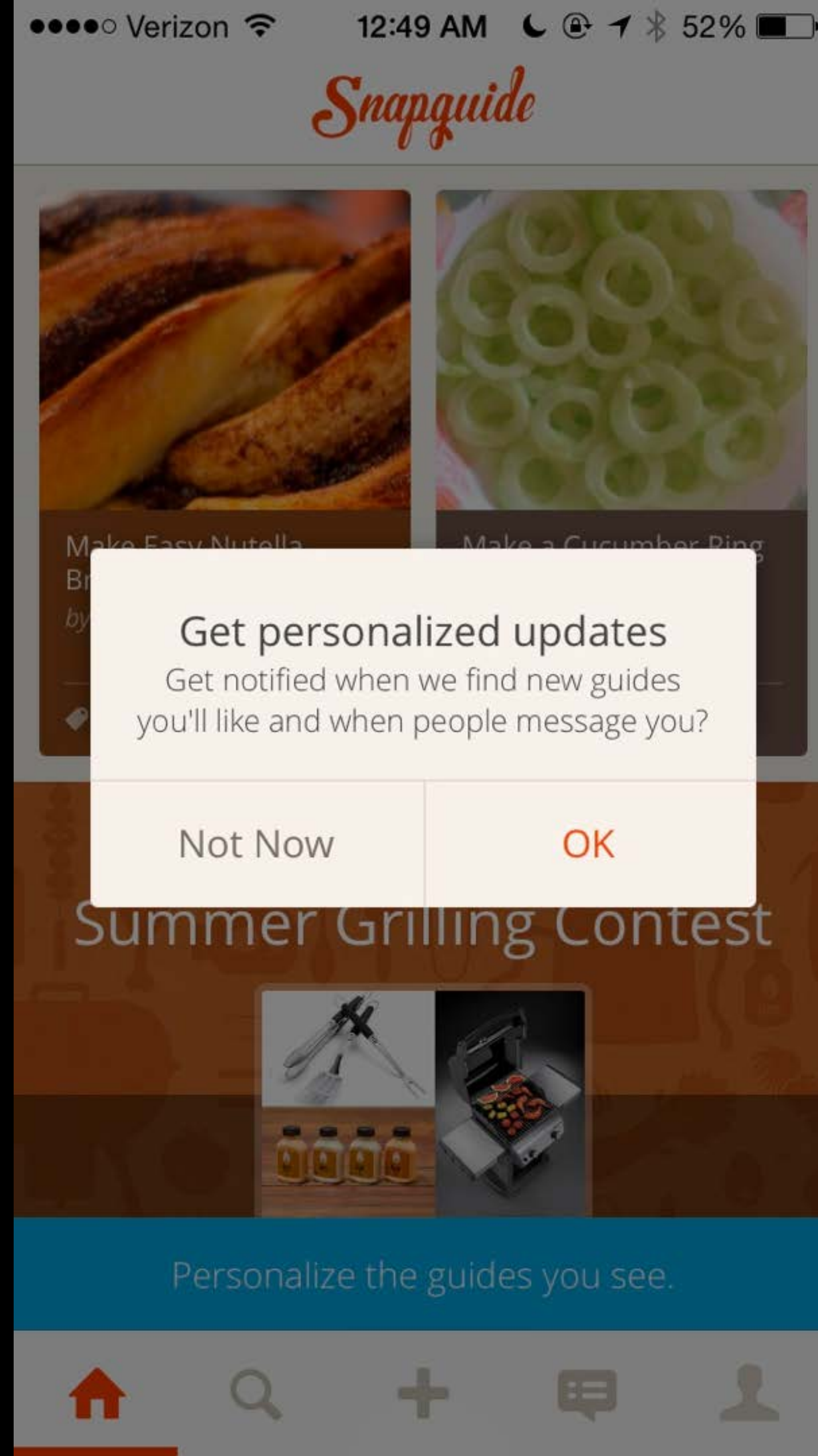


# Popovers

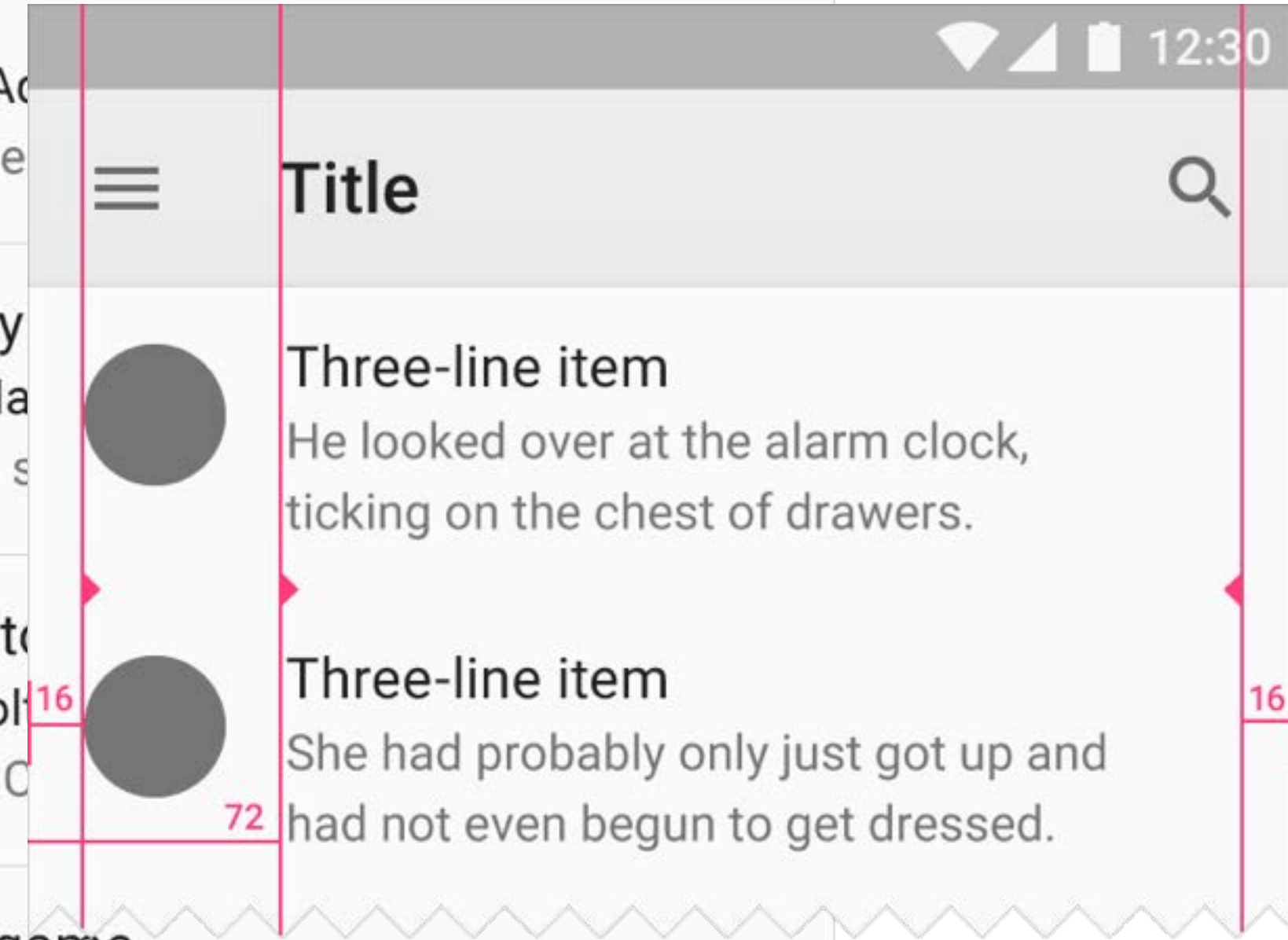
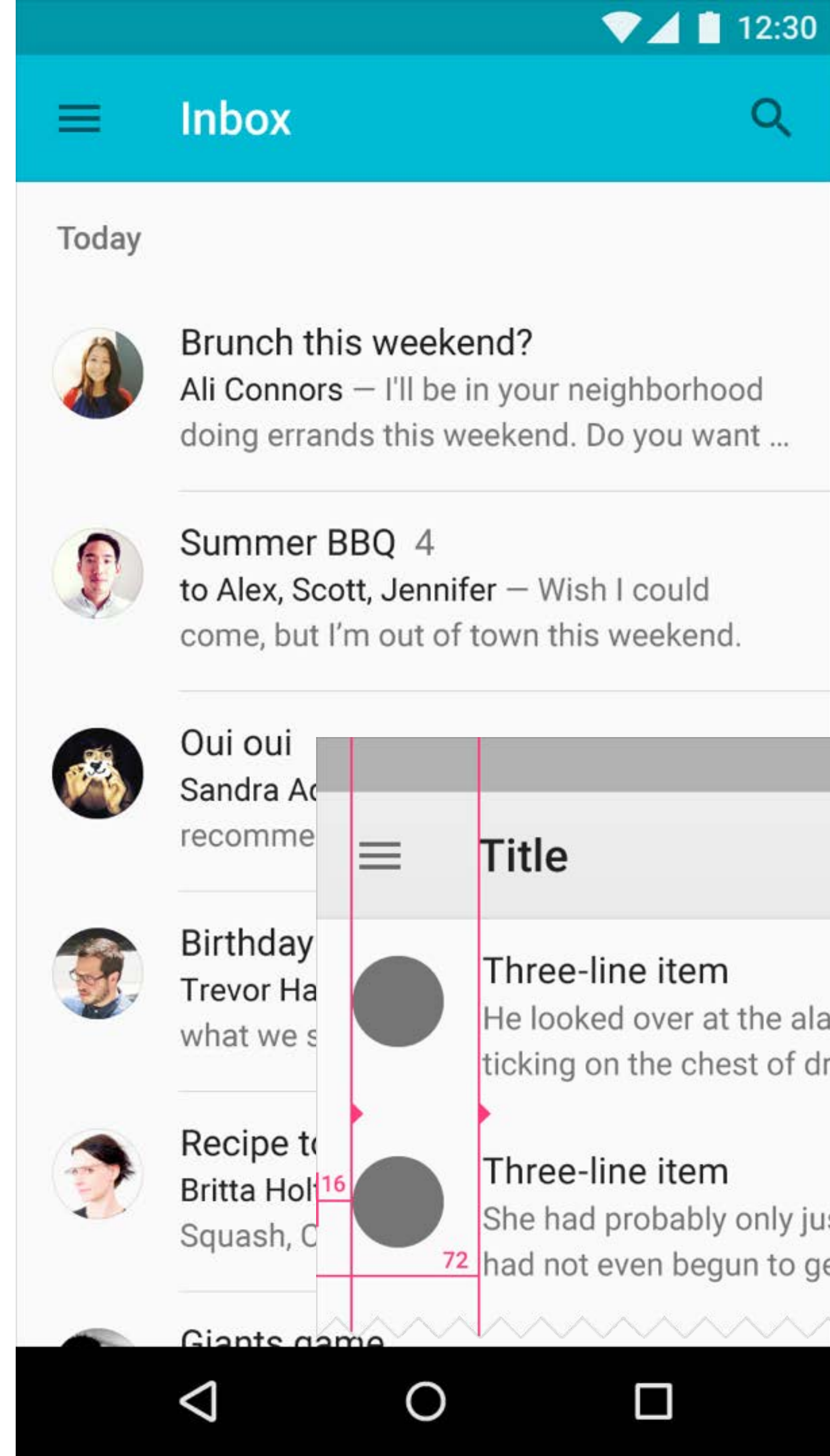
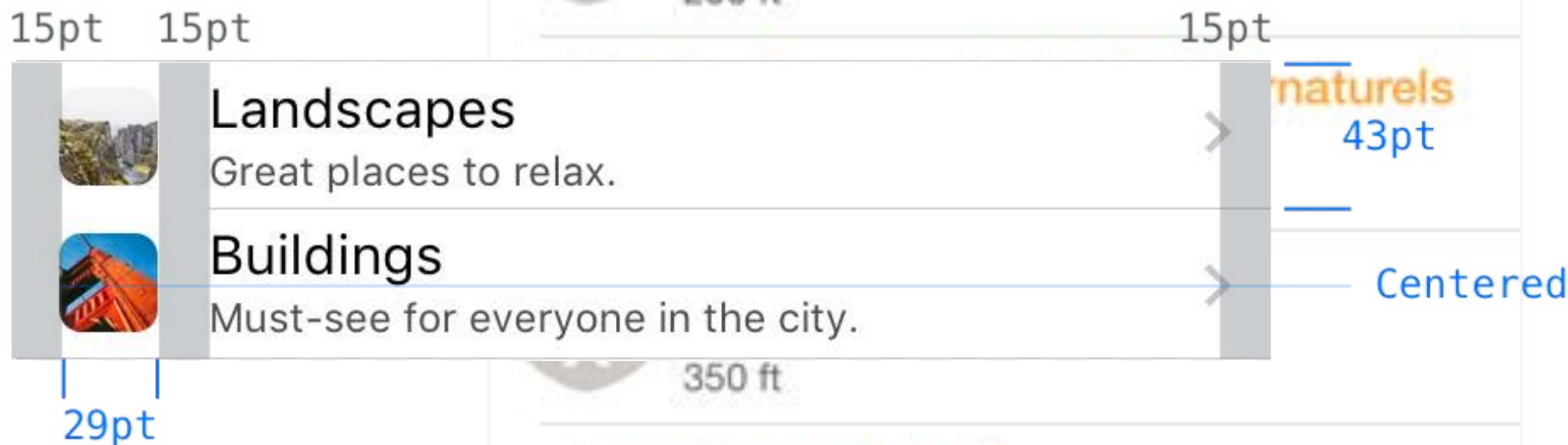
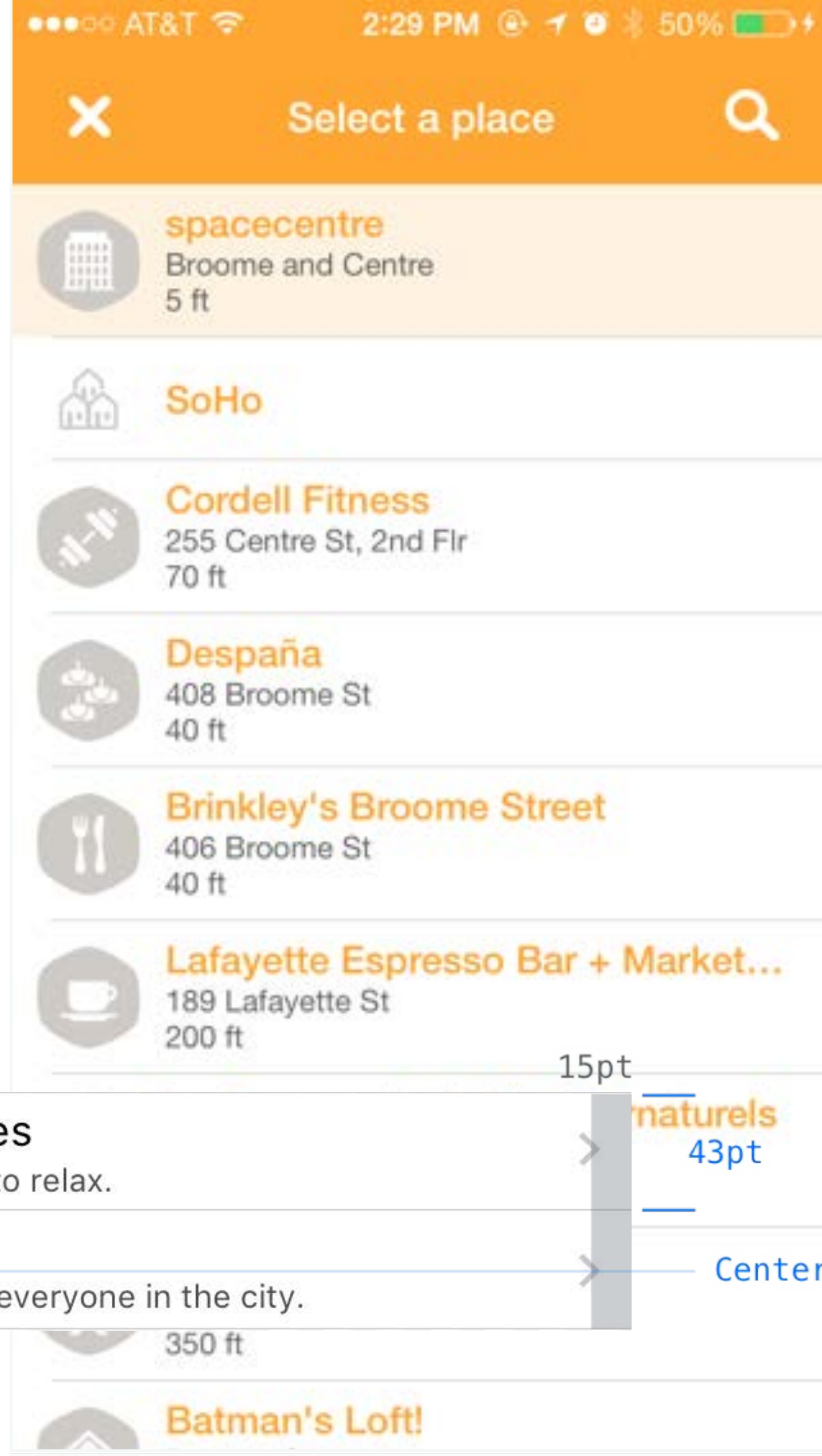




# Alerts



# Lists



# Table view

iPod 10:04 AM

[Overview](#) Accounts

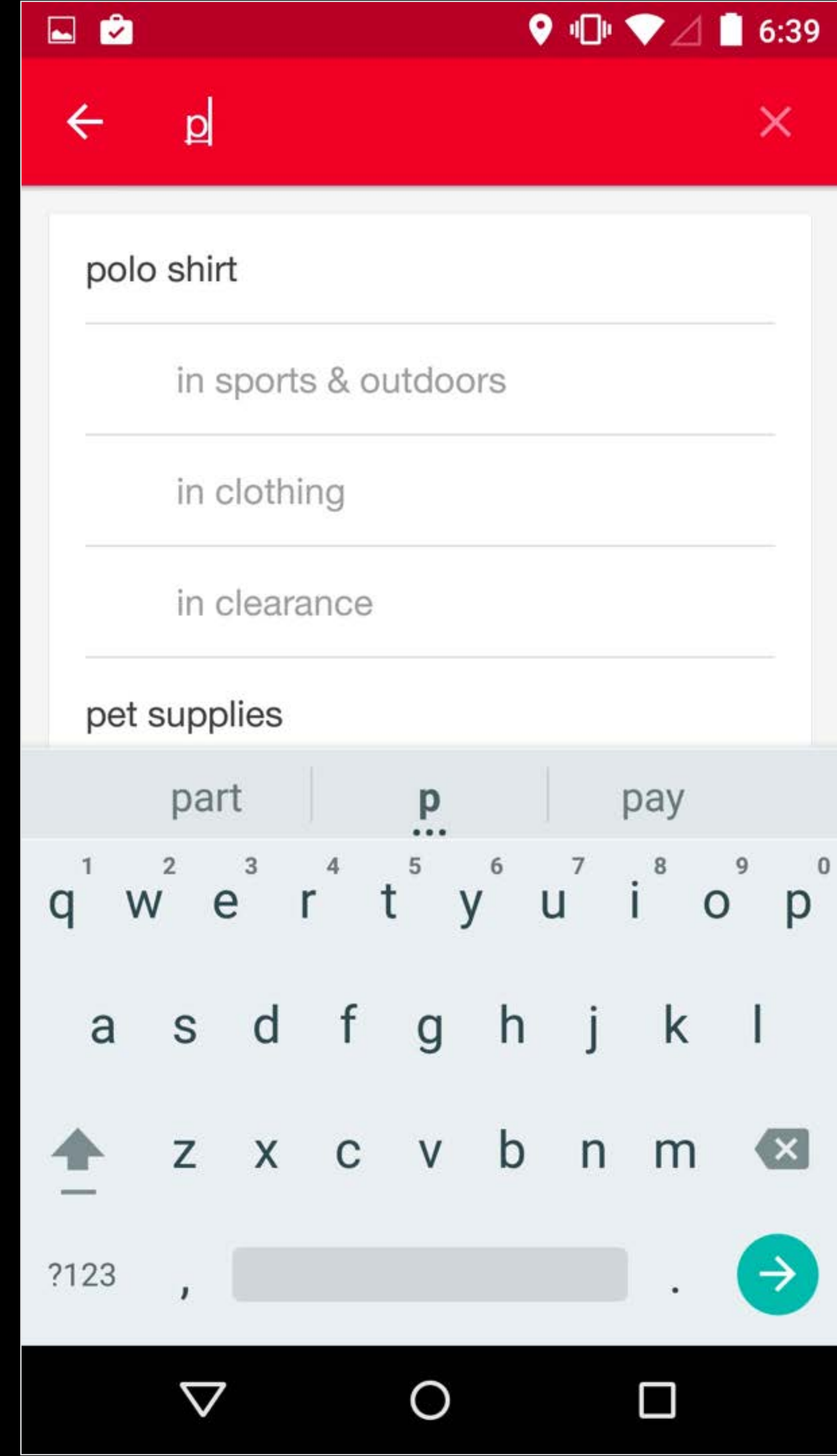
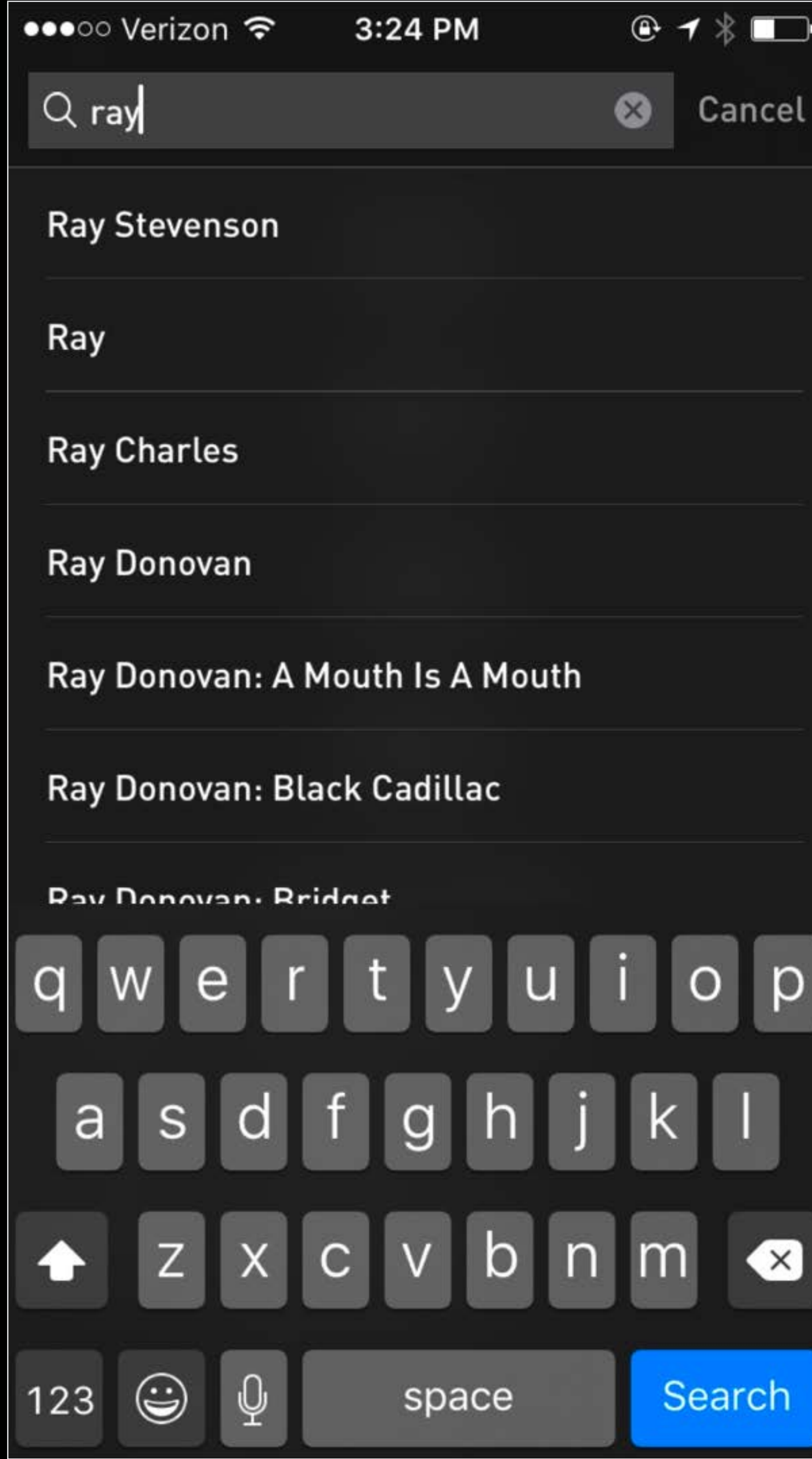
All Accounts All Transactions	\$14,767 >
CASH	
JOINT Wells Fargo	\$31,814 > 7 minutes ago
My Checking Wells Fargo	\$986 > 7 minutes ago
CREDIT CARDS	
Costco TrueEarnings... American Express Credit Card	-\$16,867 > 7 minutes ago
VISA Wells Fargo	-\$1,168 > 7 minutes ago

Updated 11/05/2013 at 10:03 AM

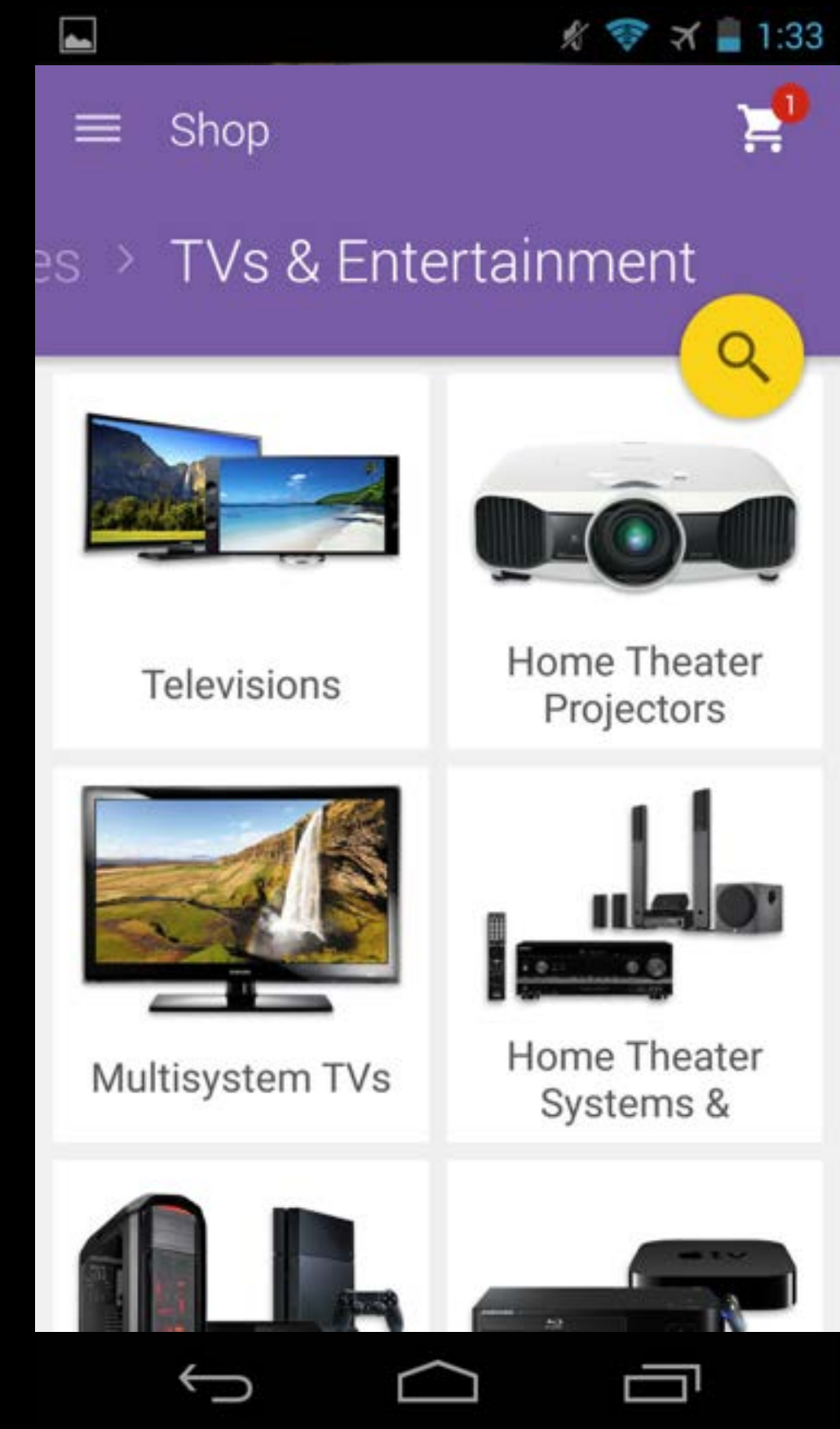
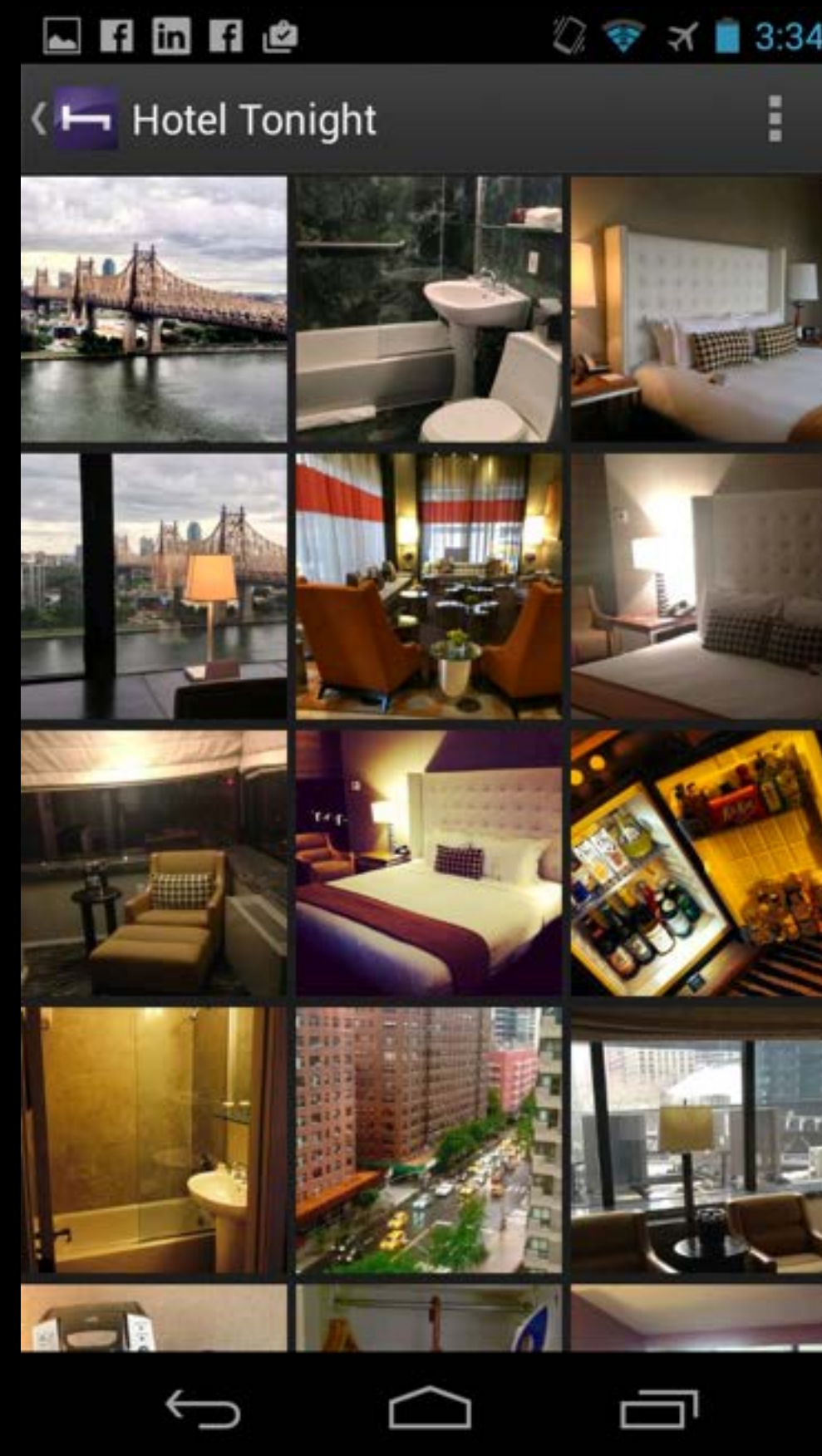
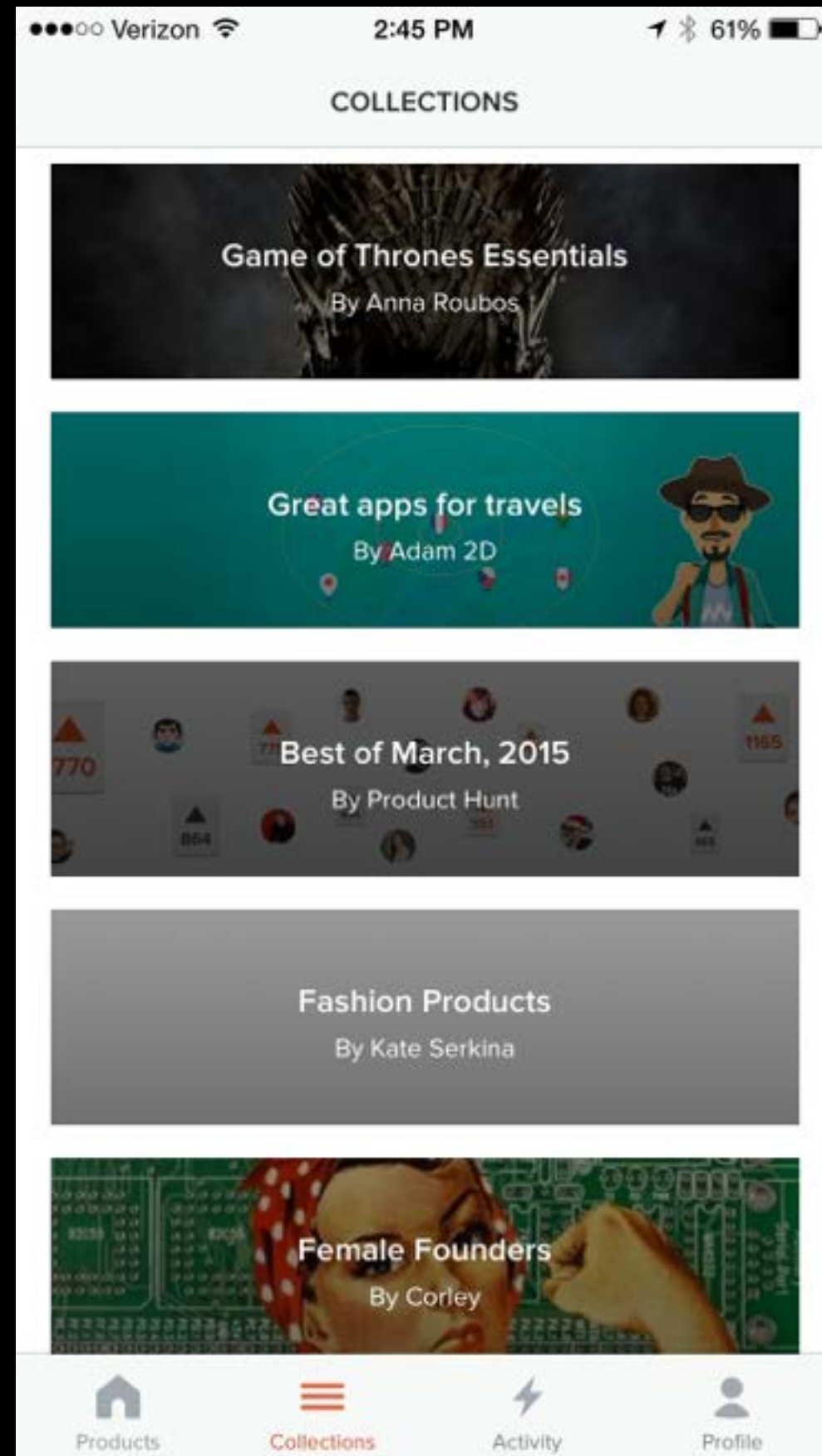
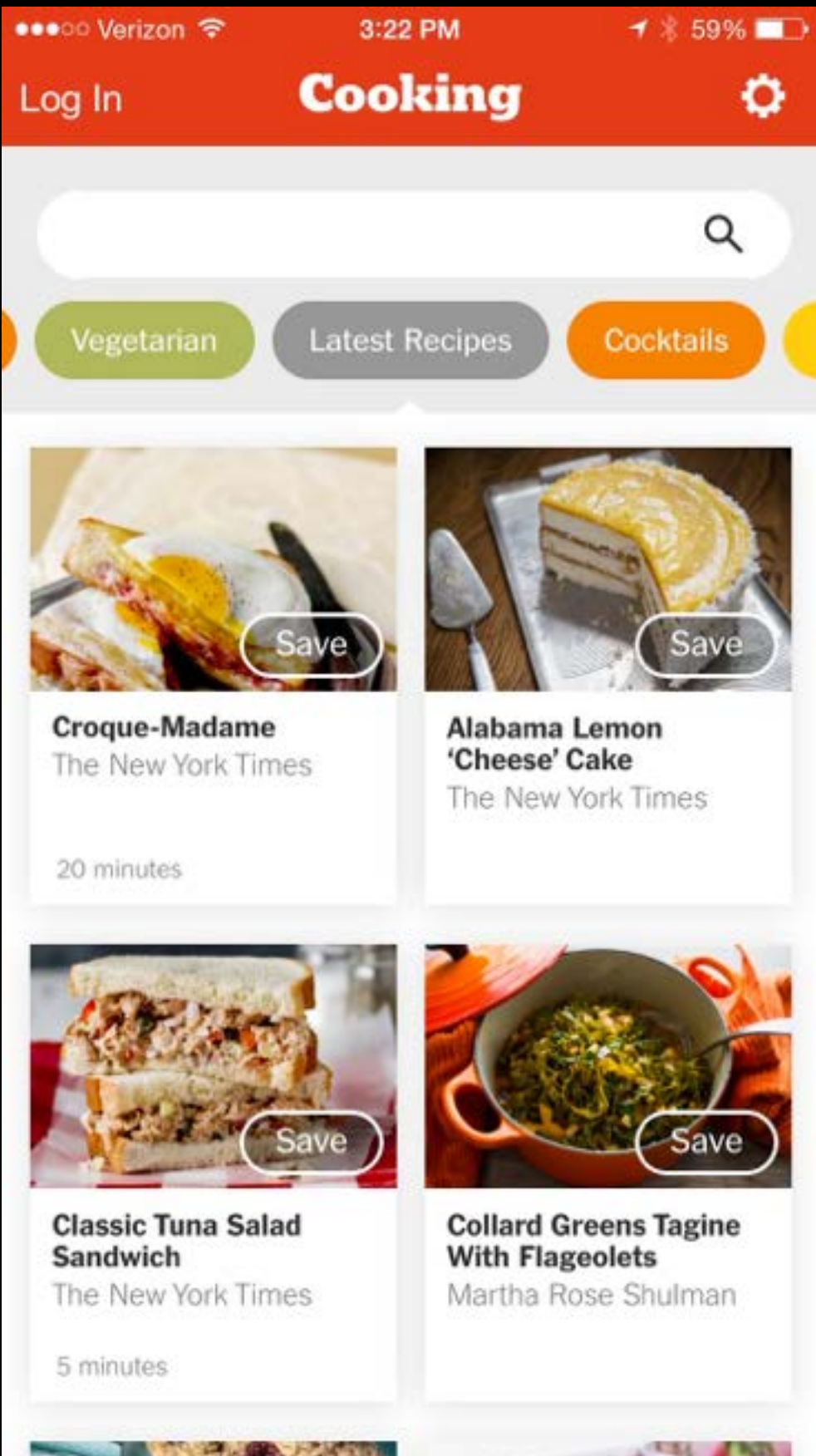
qb Accept Transactions (195) 3:58

ALL	RECOGNIZED
<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Internet Connection Utilities Gas and Electric
	Broadway Job Materials -\$23.11 10/7/2014
	Online Warehouse Uncategorized Expense -\$1,285.58 10/6/2014
	Cafe Food & Entertainment -\$23.56 10/6/2014
	Office Supplies Office Supplies -\$89.06 10/5/2014
	Online Warehouse Uncategorized Expense -\$65.02 10/5/2014
	Oil Changer Fuel -\$67.29 10/5/2014
	Delivery Service Job Materials -\$110.05 10/4/2014

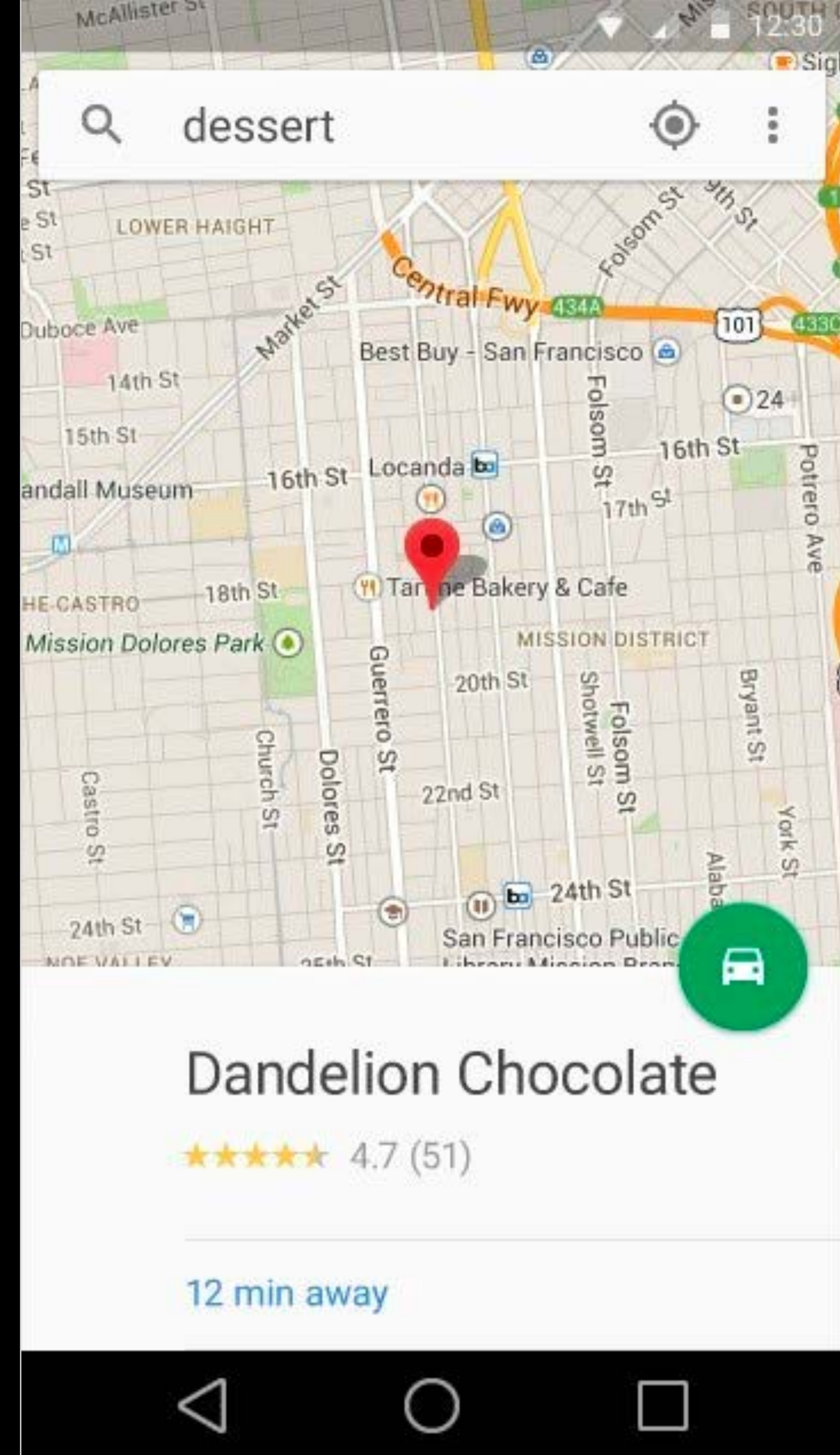
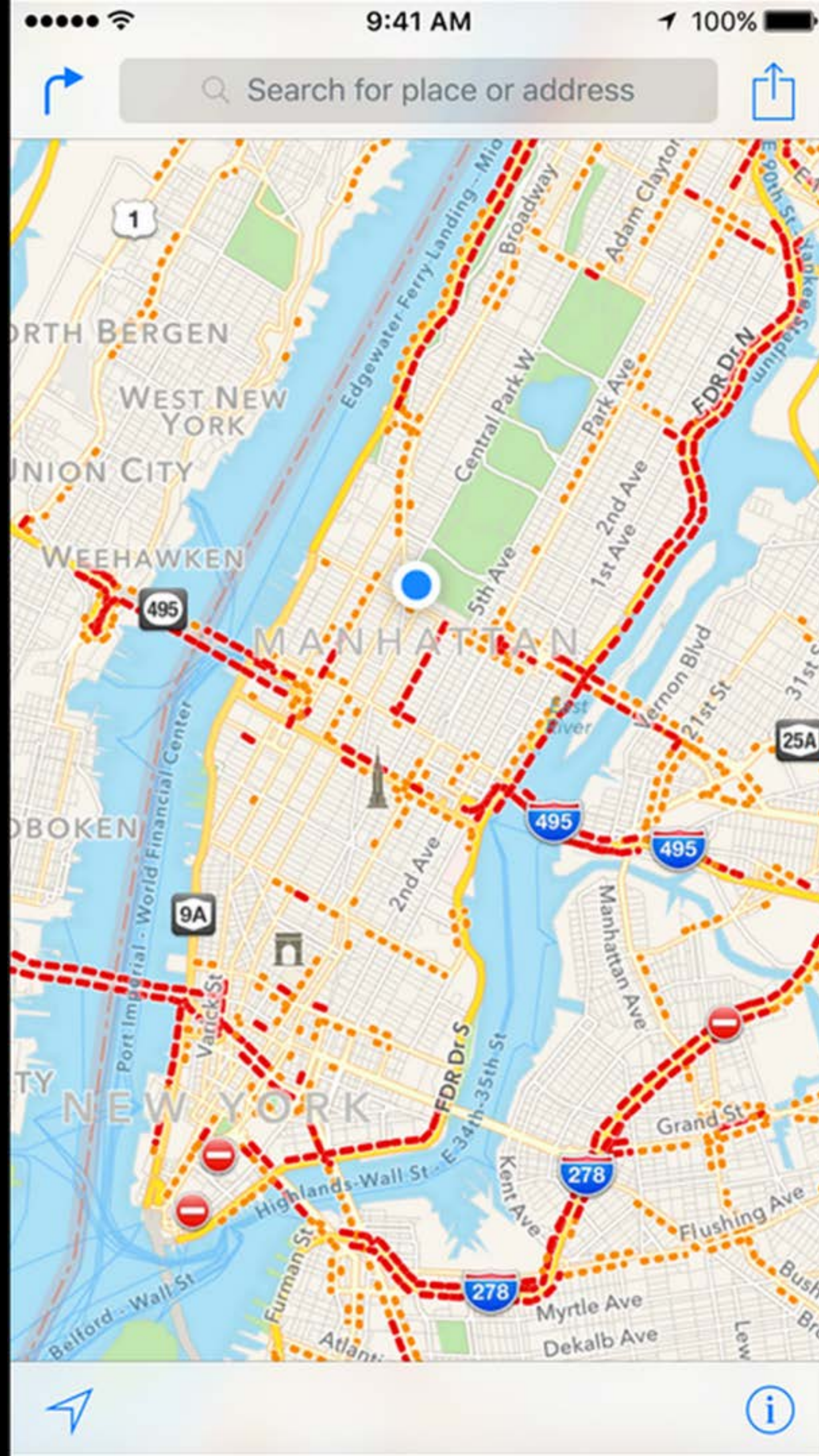
# Search



# Collections



# Maps



# Forms

AT&T 9:03 PM 82%

Bag

Deliver Now Schedule

First Name Last Name

Street Address Unit #

Mobile Phone

Delivery Instructions...

Business Address?

ADD ADDRESS

Items Ordered

Tomorrow, August 13

1:40

NEW ACCOUNT

✕ ✓

✉ raszka@gmail.com

👤 Username

🔒 Password

PROFILE optional

📘 Use Your Facebook Info

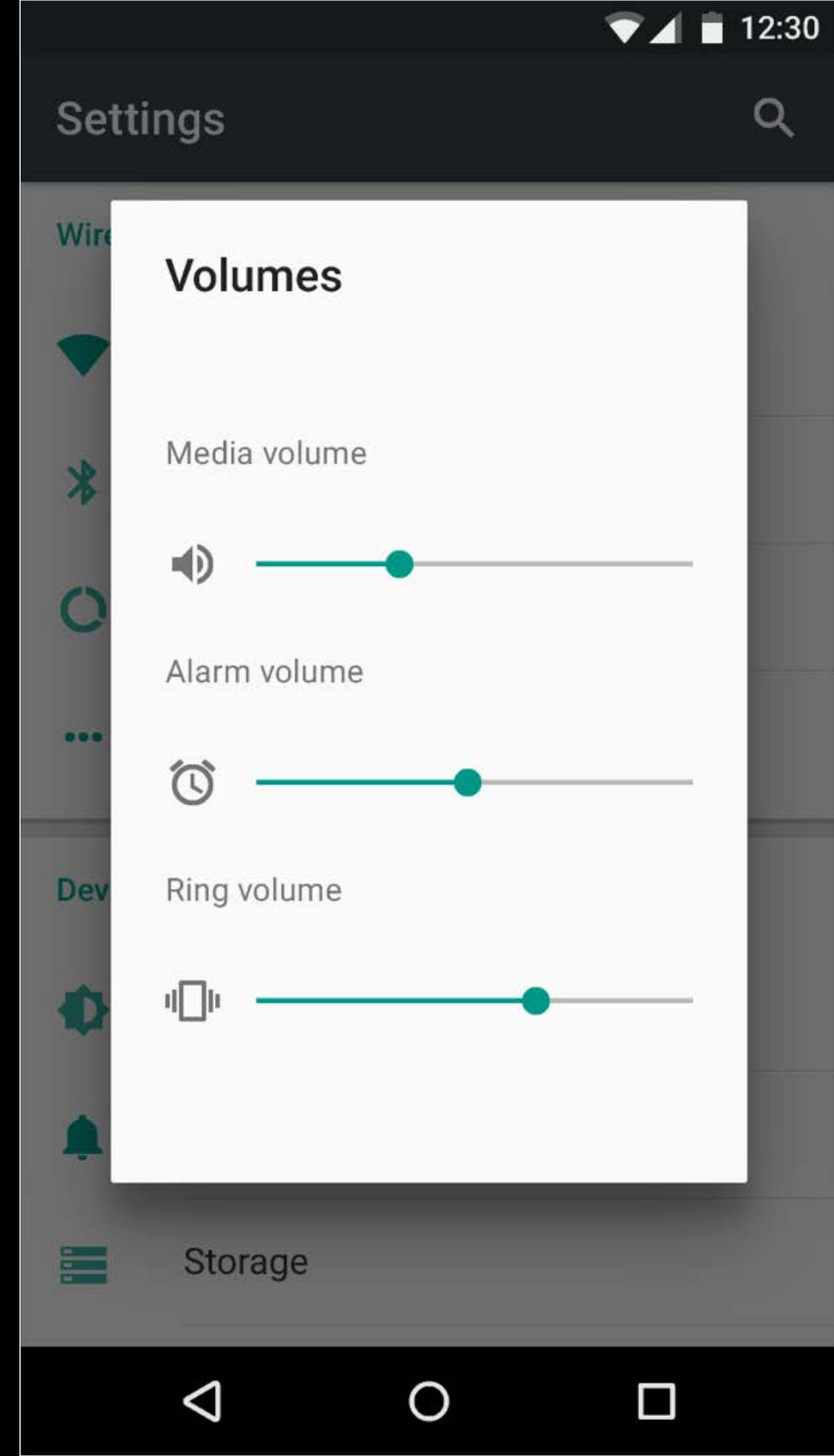
📅 Name

📞 Phone

Only you will be able to see your phone number.

By tapping to continue, you are indicating that you have read the [Terms of Service](#) and agree to the [Privacy Policy](#).

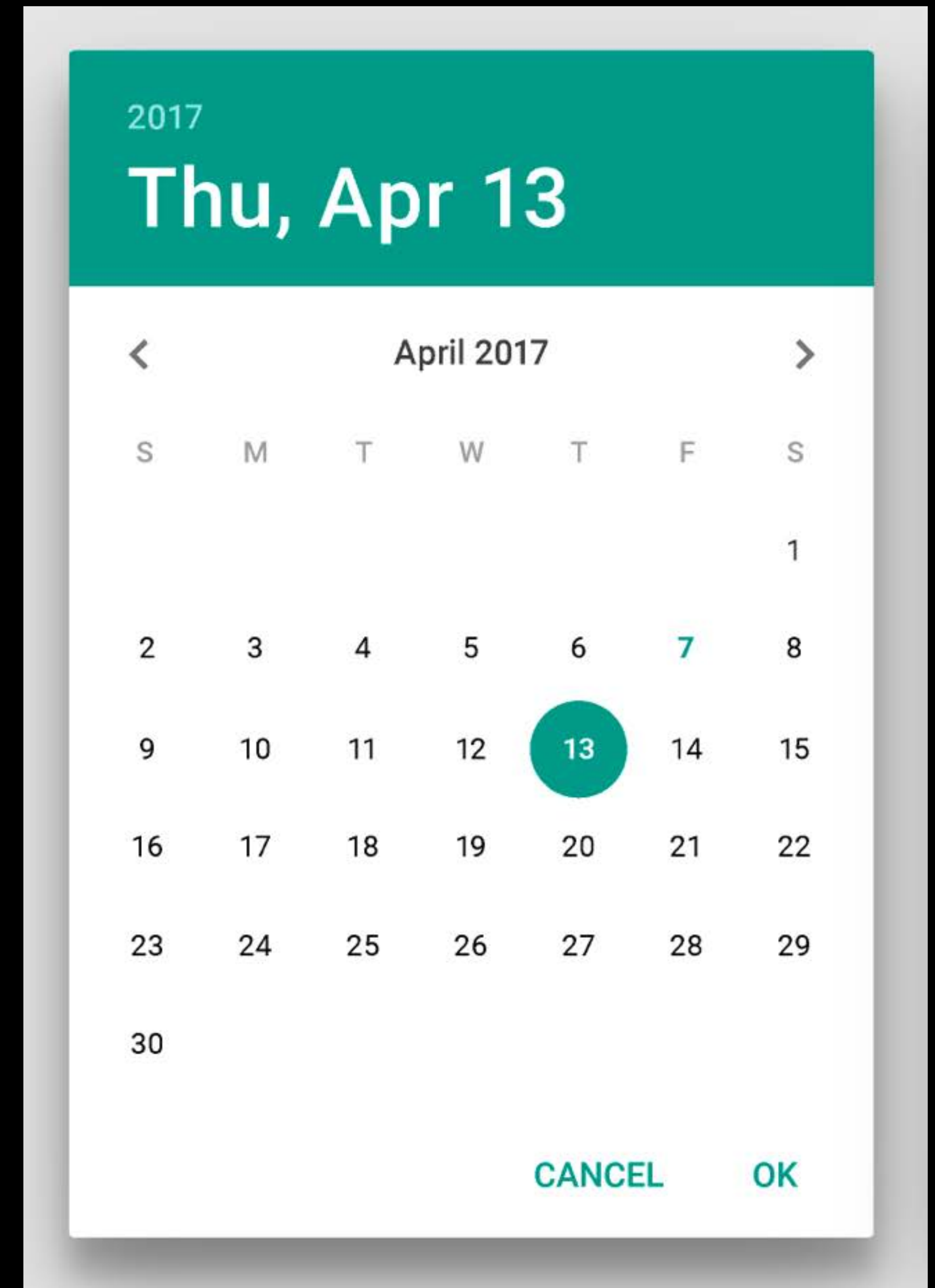
# Sliders





# Date pickers

Wed 23 Sep	16	45
Thu 24 Sep	17	50
Fri 25 Sep	18	55
Sat 26 Sep	19	00
<b>Today</b>	<b>19</b>	<b>00</b>
Mon 28 Sep	20	05
Tue 29 Sep	21	10
Wed 30 Sep	22	15



# Switches

Settings ×

Sleep Goal — 8hrs +

Mic Sensitivity — Med +

Wake up mood

Sleep Notes

Start week on Sun Mon

## DATA & SERVICES

Sync to iCloud

Runkeeper

Database >

Sync sleep with Health

≡ SETTINGS

## PLAYBACK

Offline mode   
When offline, you can only listen to playlists you've downloaded to your device.

Crossfade   
Allows you to crossfade between tracks  
Off  12 s

Gapless   
Allows gapless playback

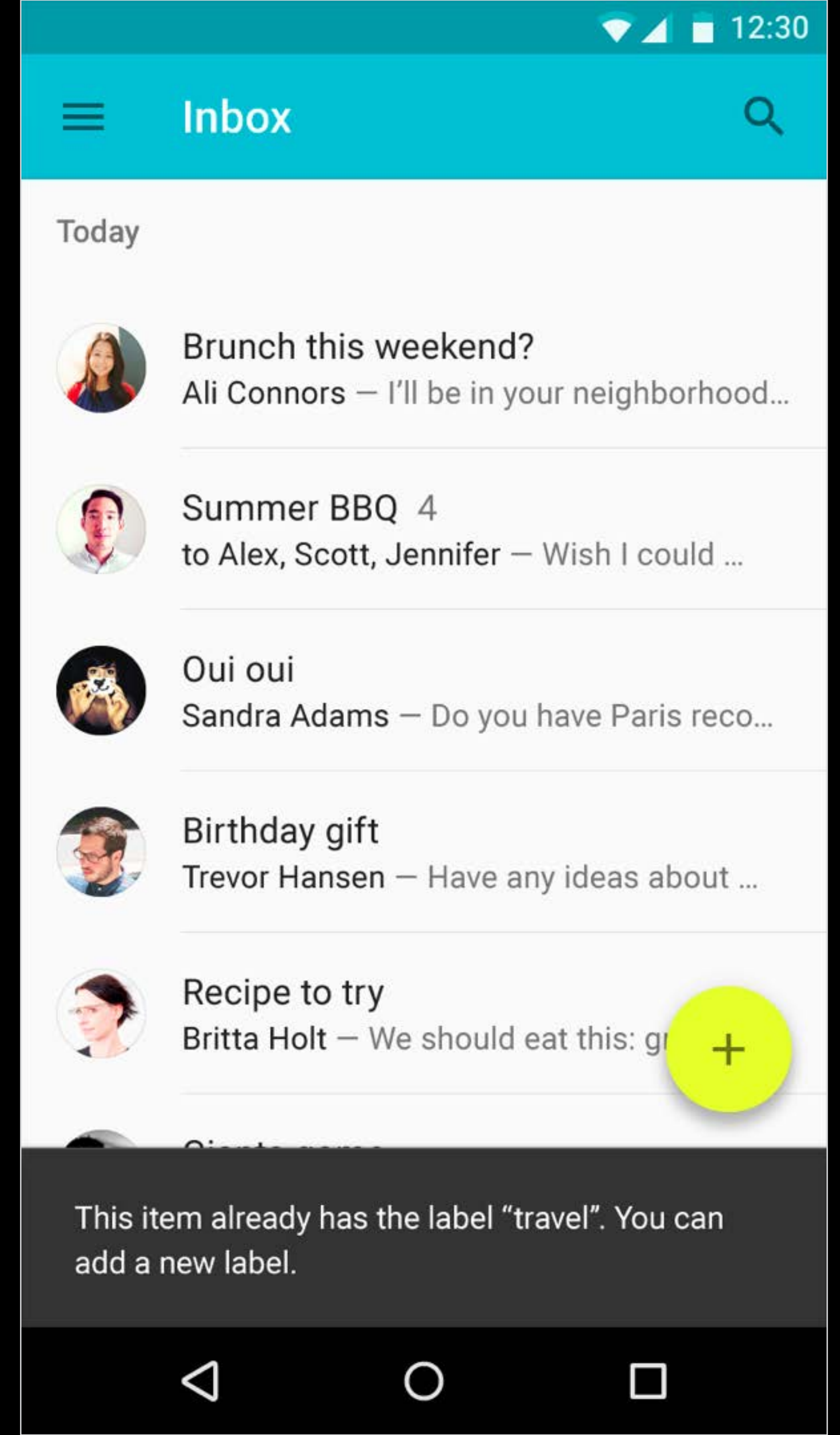
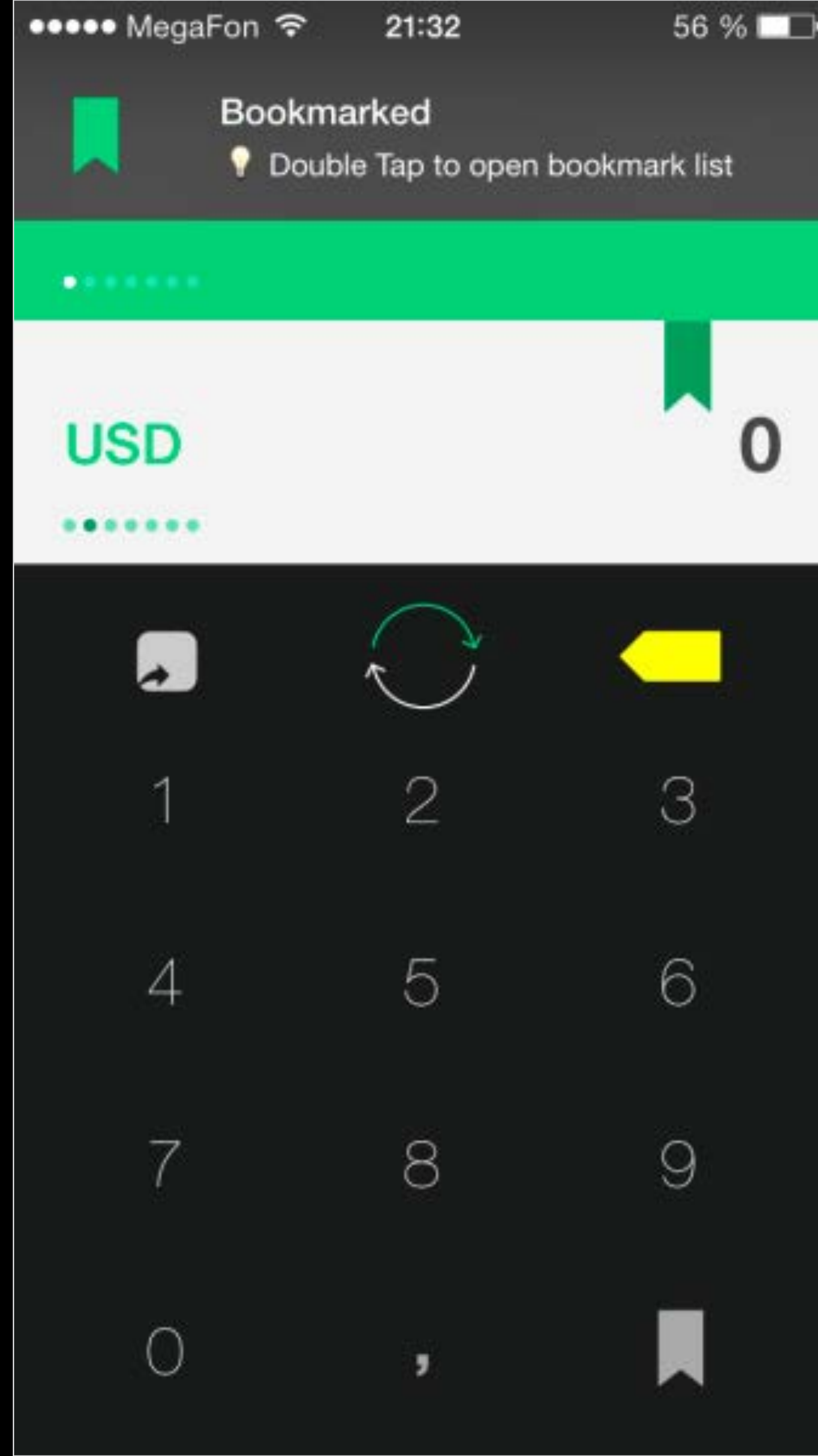
Device Broadcast Status   
Allow other apps on your device to see what you are listening to.

## SPOTIFY CONNECT

Show available devices   
Connect lets you play and control Spotify on your devices.




# Snackbars / Toast / Notifications



# Hint text

●●○○○ AT&T 5:53 PM

[← Back](#) **New Account** [Next](#)

 First Name

Last Name

Kik Username

Email

Password

Birthday


Phone (Recommended)


By tapping 'Next' you agree to the [Terms of Service](#) and [Privacy Policy](#)


Note: Your personal information is kept private


12:30


[←](#) [✓](#)








 Ali Connors

 650 | Mobile ▾

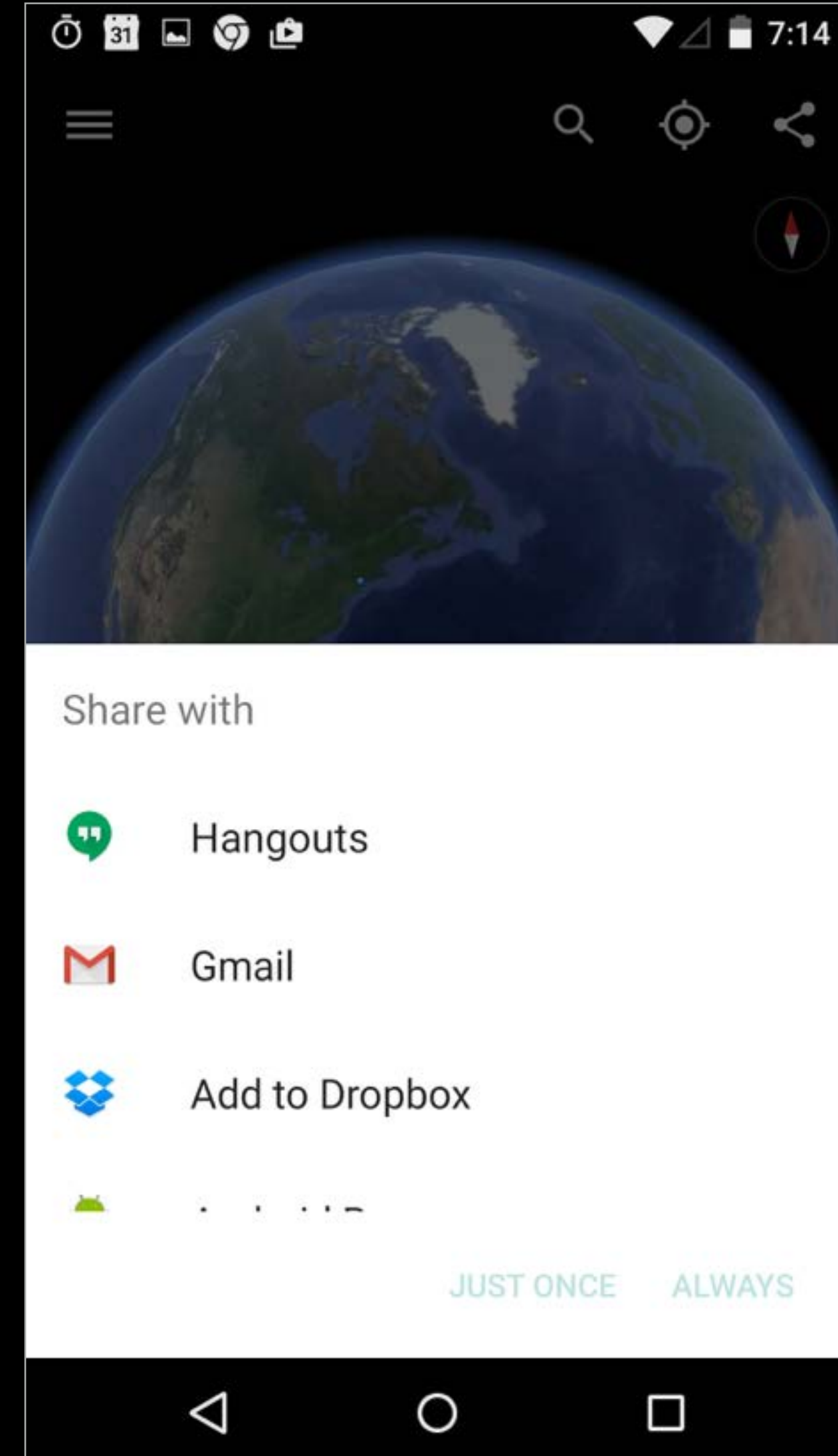
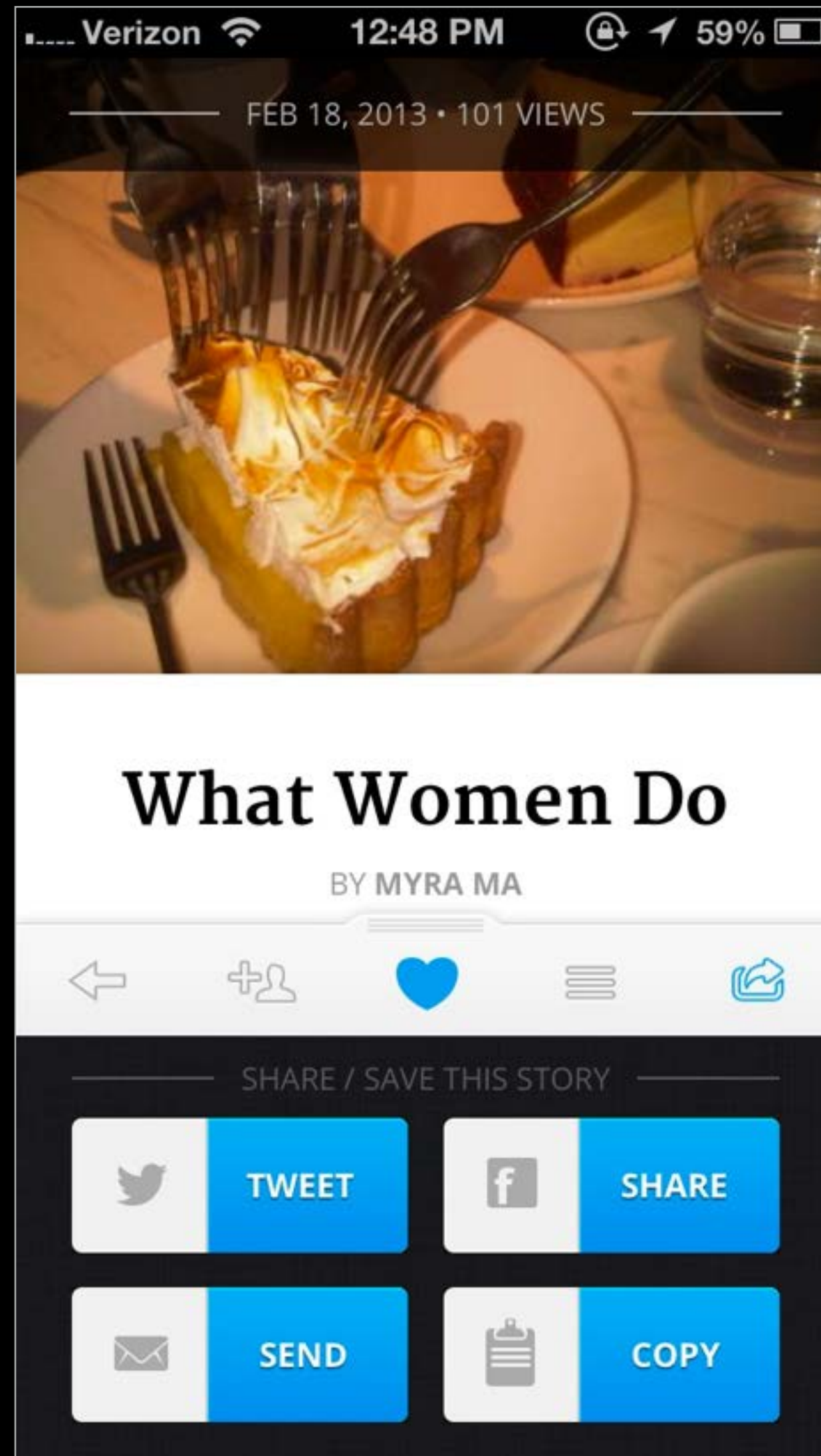
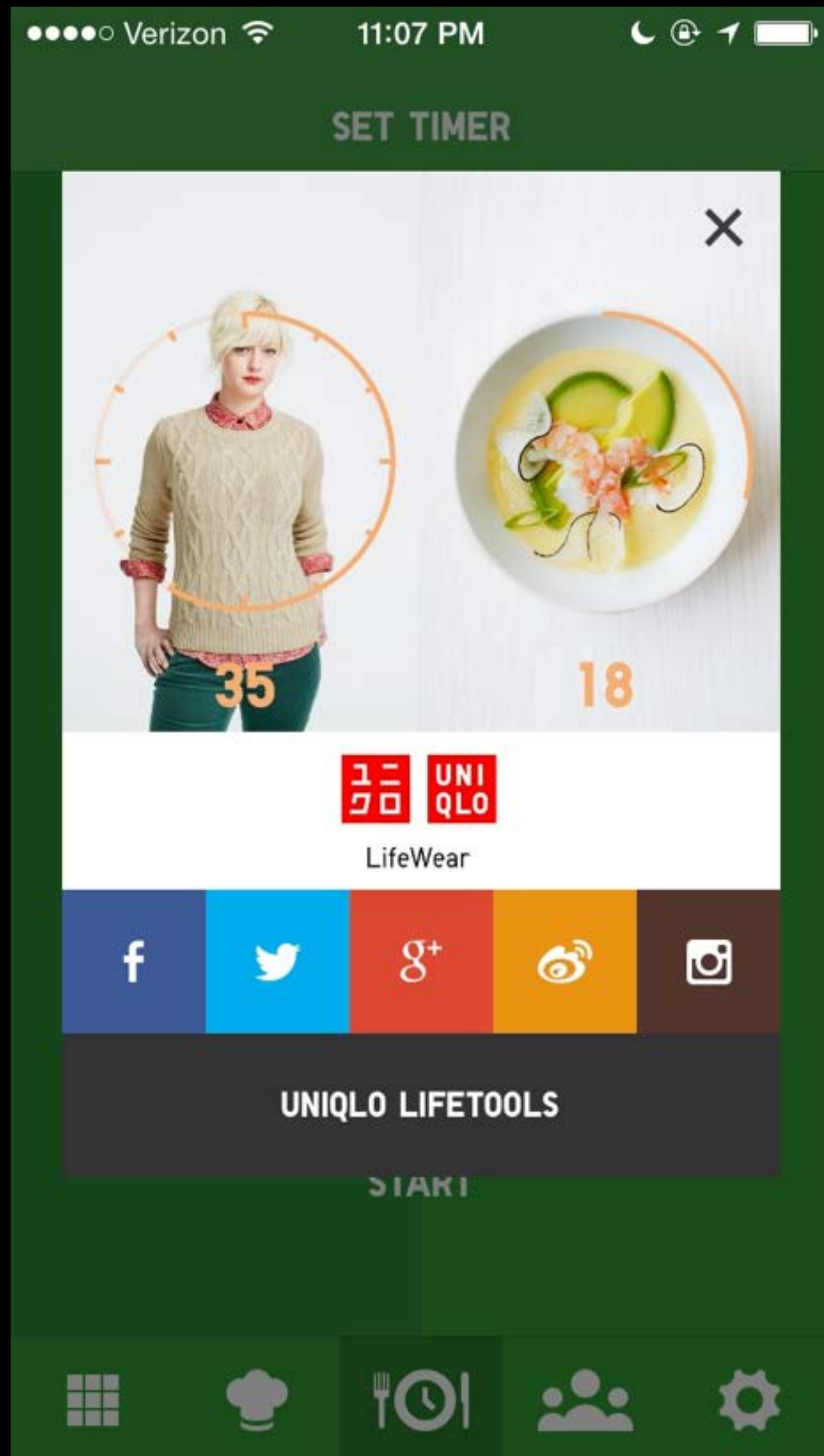
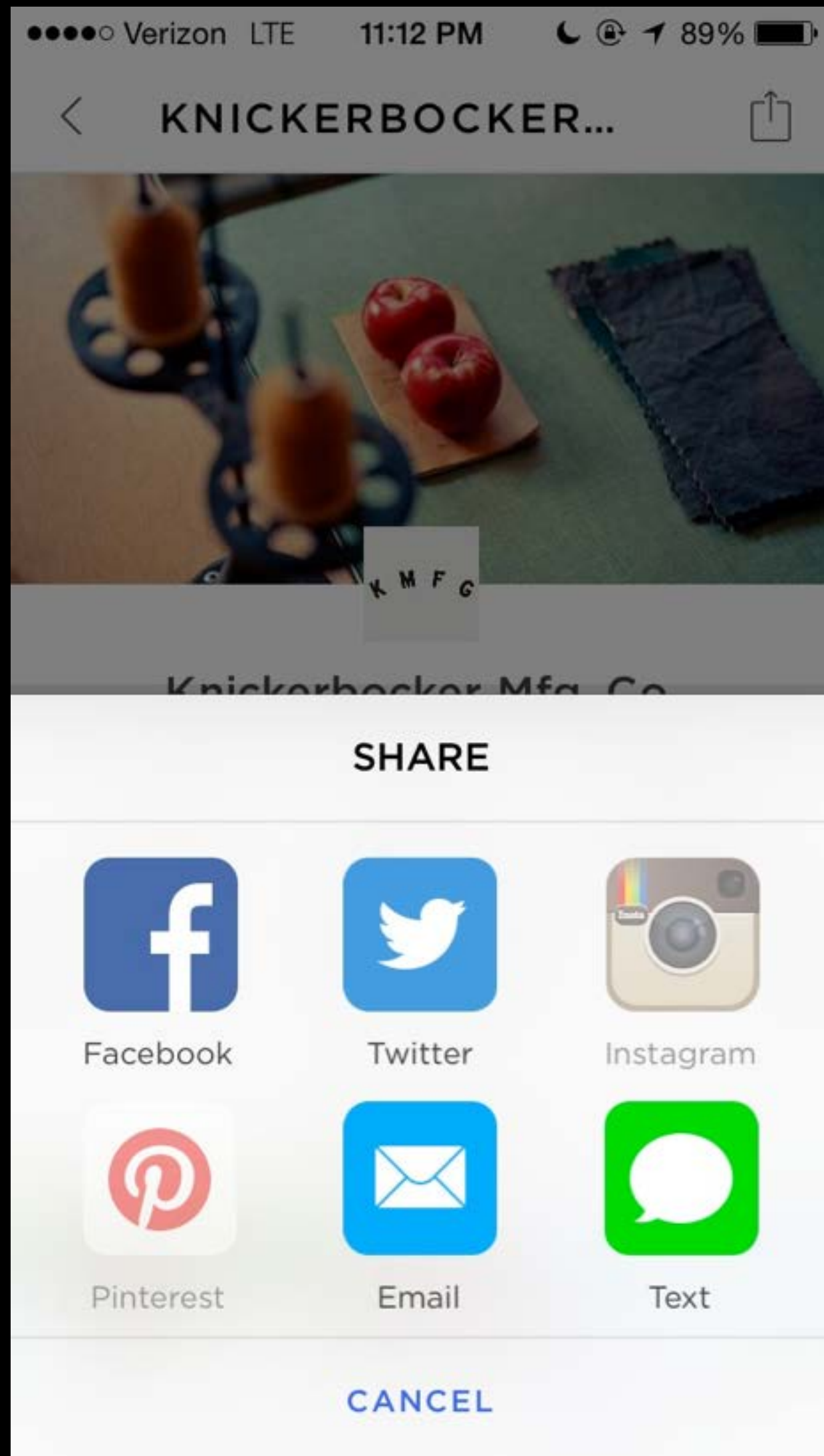
 Email | Work ▾

 Address | Home ▾

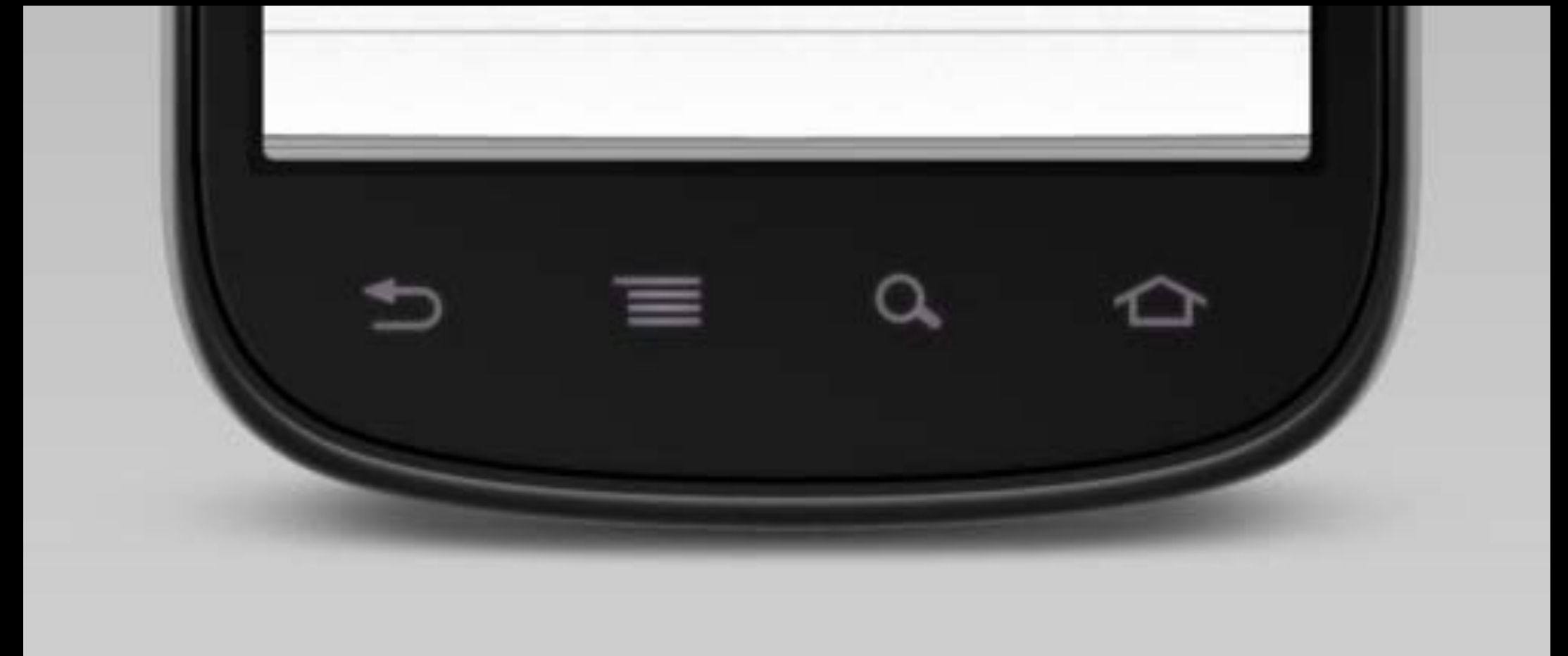
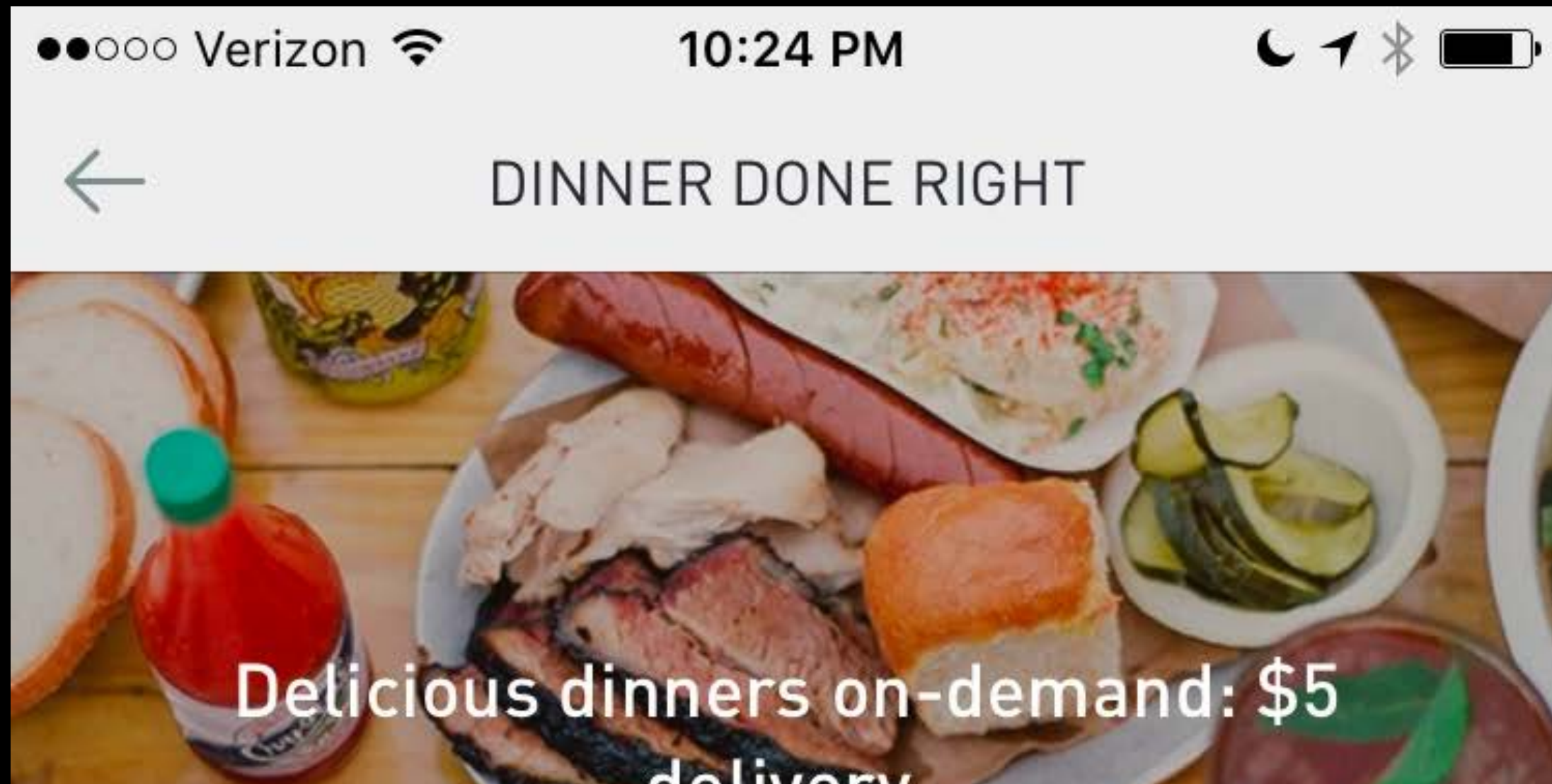
 Ringtone

 Add note

# Sharing sheet



# Back



# Reading

## Learn iOS Design

<https://designcode.io/iosdesign>

## Type on Screen

Chapters 4 & 5

**THURSDAY:**

**Review printouts of wireframes for each flow**

# Resources

## iOS Human Interface Guidelines

<https://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/MobileHIG/index.html>

## Google Material Design

<https://www.google.com/design/spec/material-design/introduction.html>

## iOS Design with Specs

<http://iosdesign.ivomynttinen.com/>

## Designing from iOS to Android

<https://design.google.com/articles/design-from-ios-to-android/>