Design #WWDC17

## Design for Everyone

Session 806

Caroline Cranfill, Designer
Alexander James O'Connell, Designer

# Design for Everyone

# Design for Everyone

## Design for Others

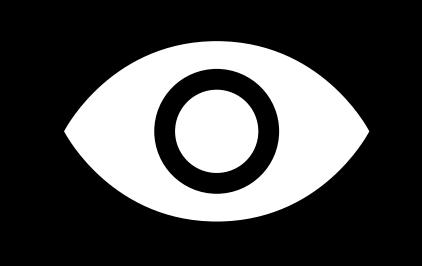
## ...who are you excluding?

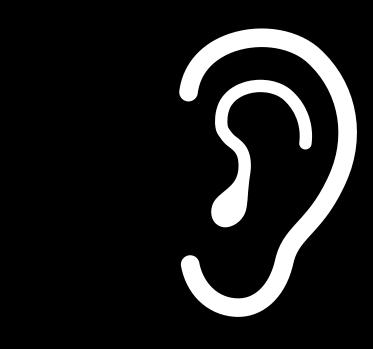
Active Apple devices

People have a disability worldwide



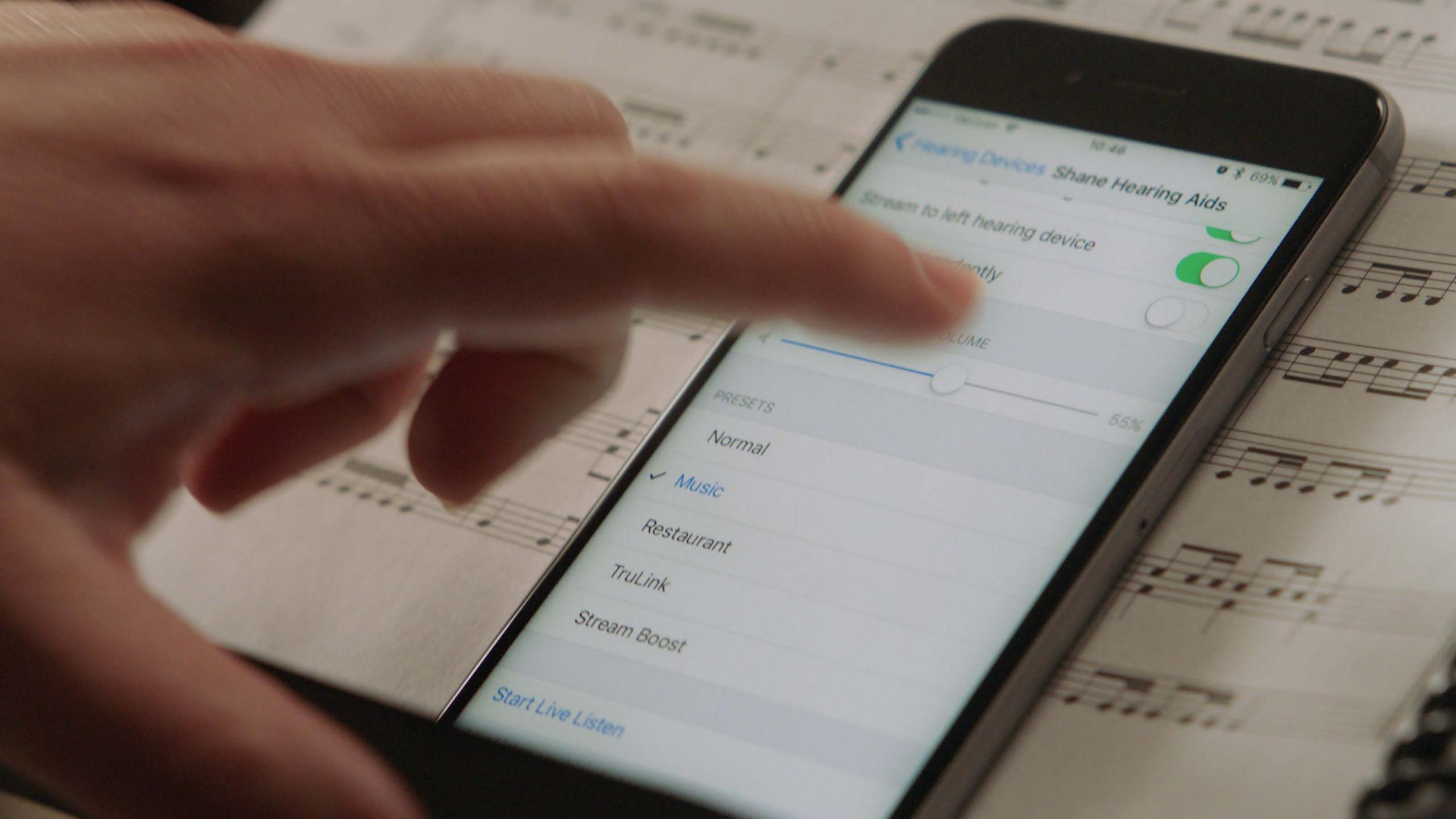














### Accessible

|ək'sesəb(ə)|| adjective, Easily obtained

Easily obtained
Easily used
Easily understood

# Design for Everyone







Simplicity

Perceivability







Perceivability

Integrity

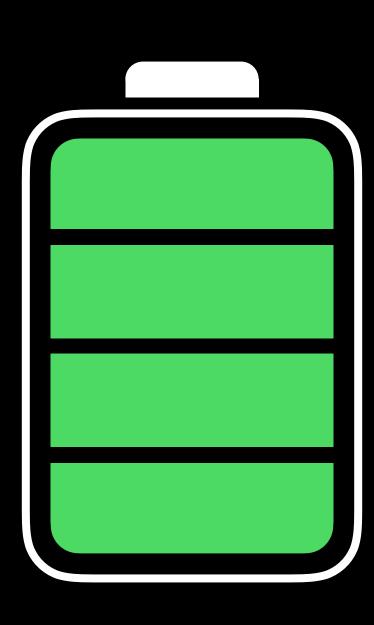


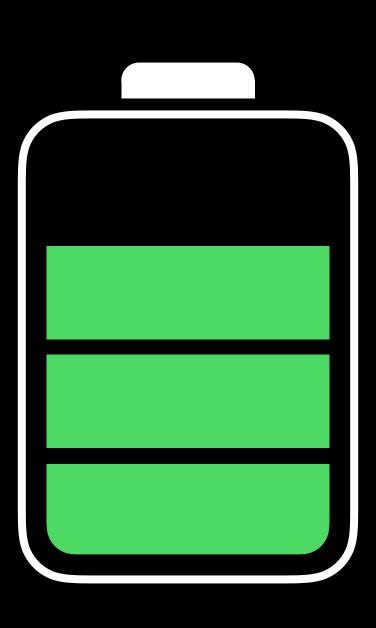


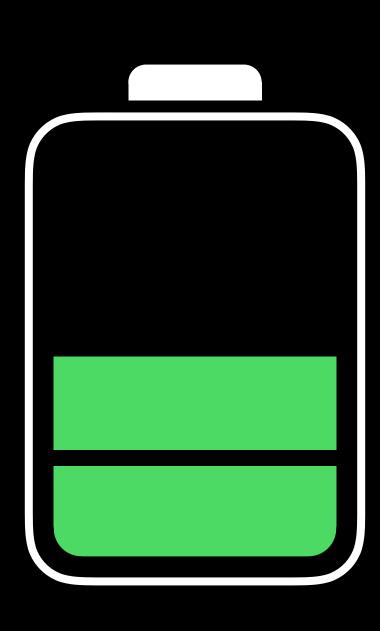


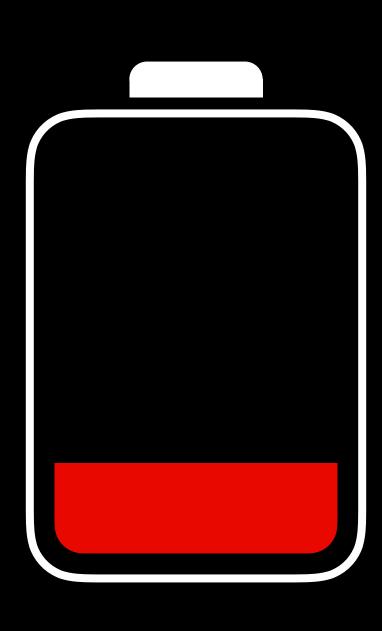


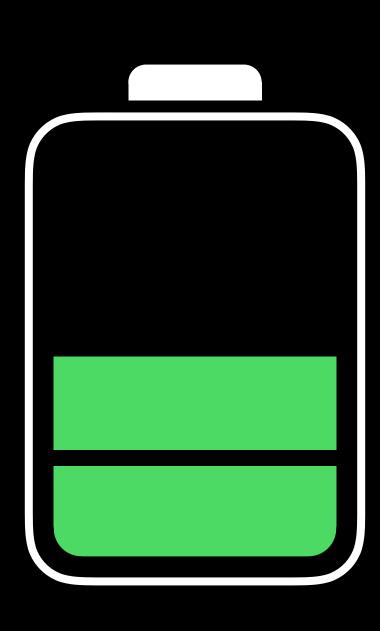
Integrity

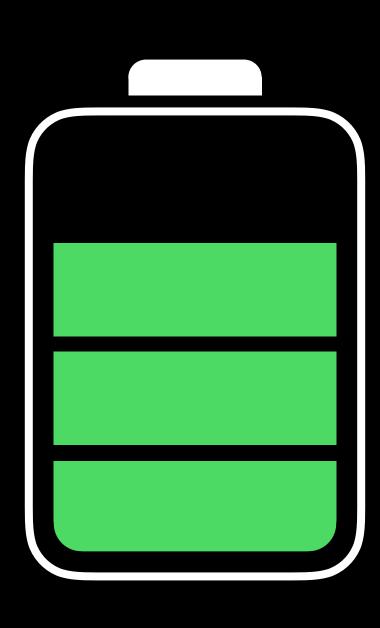


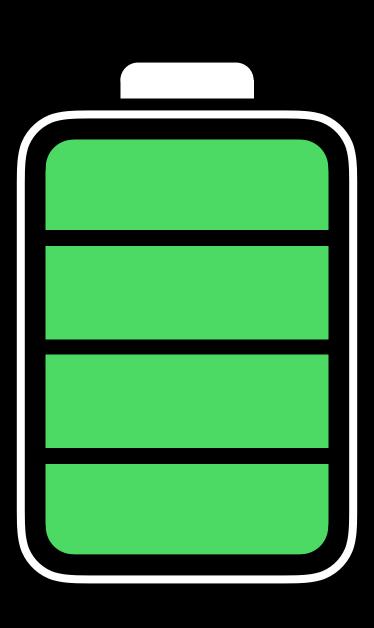




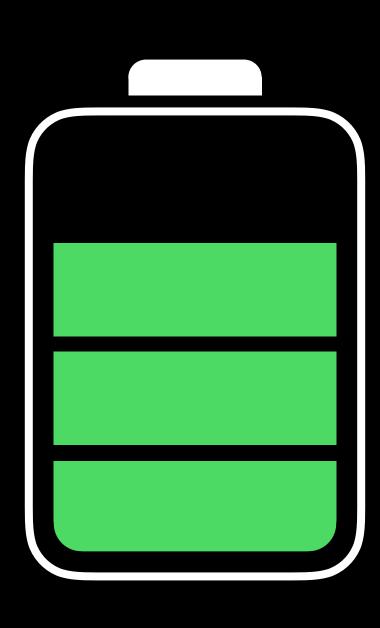


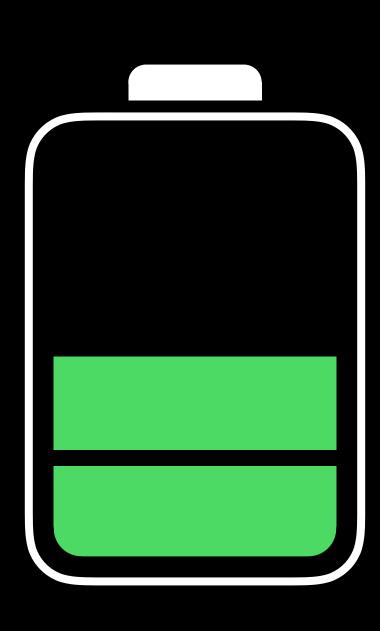


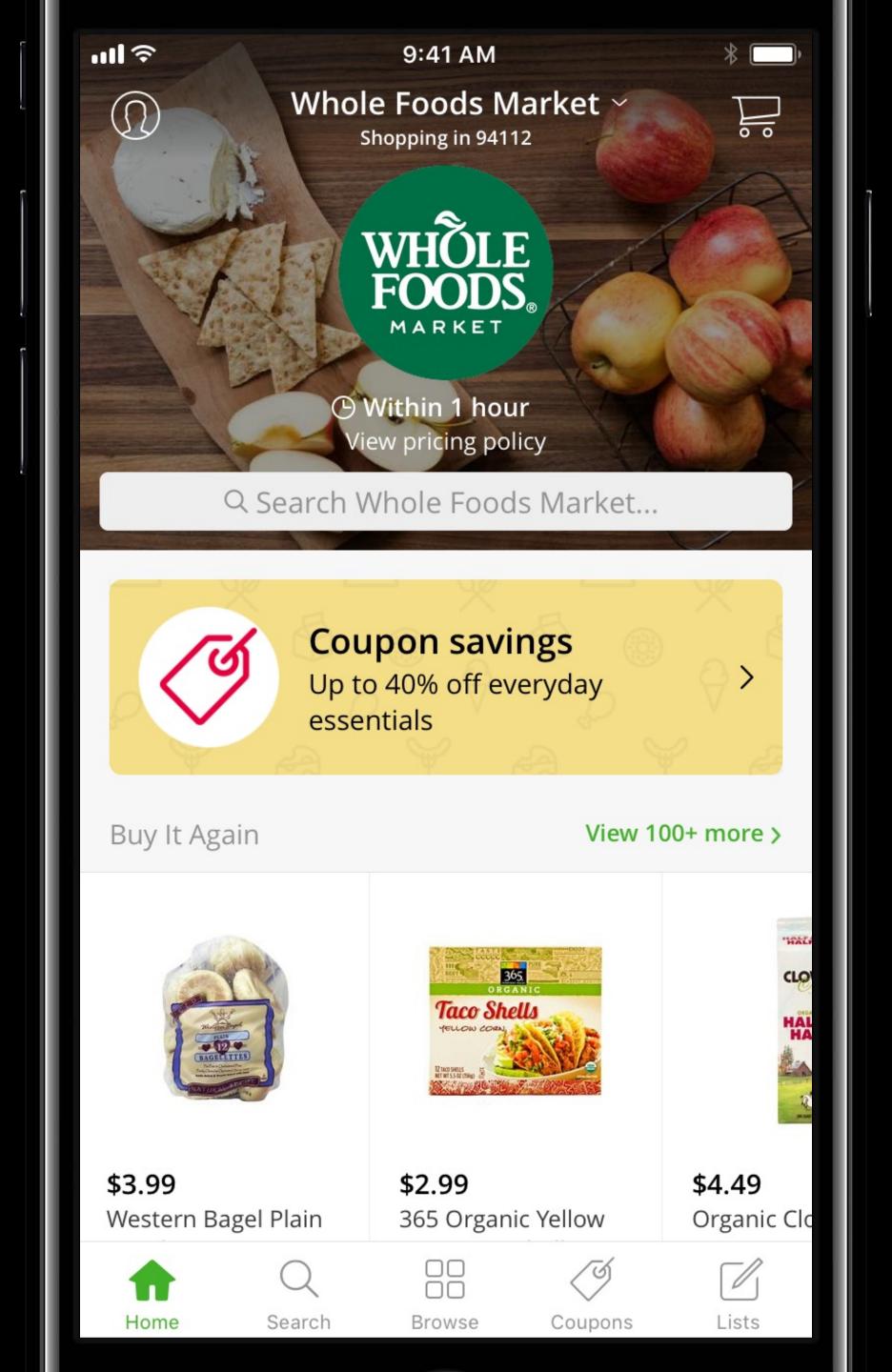


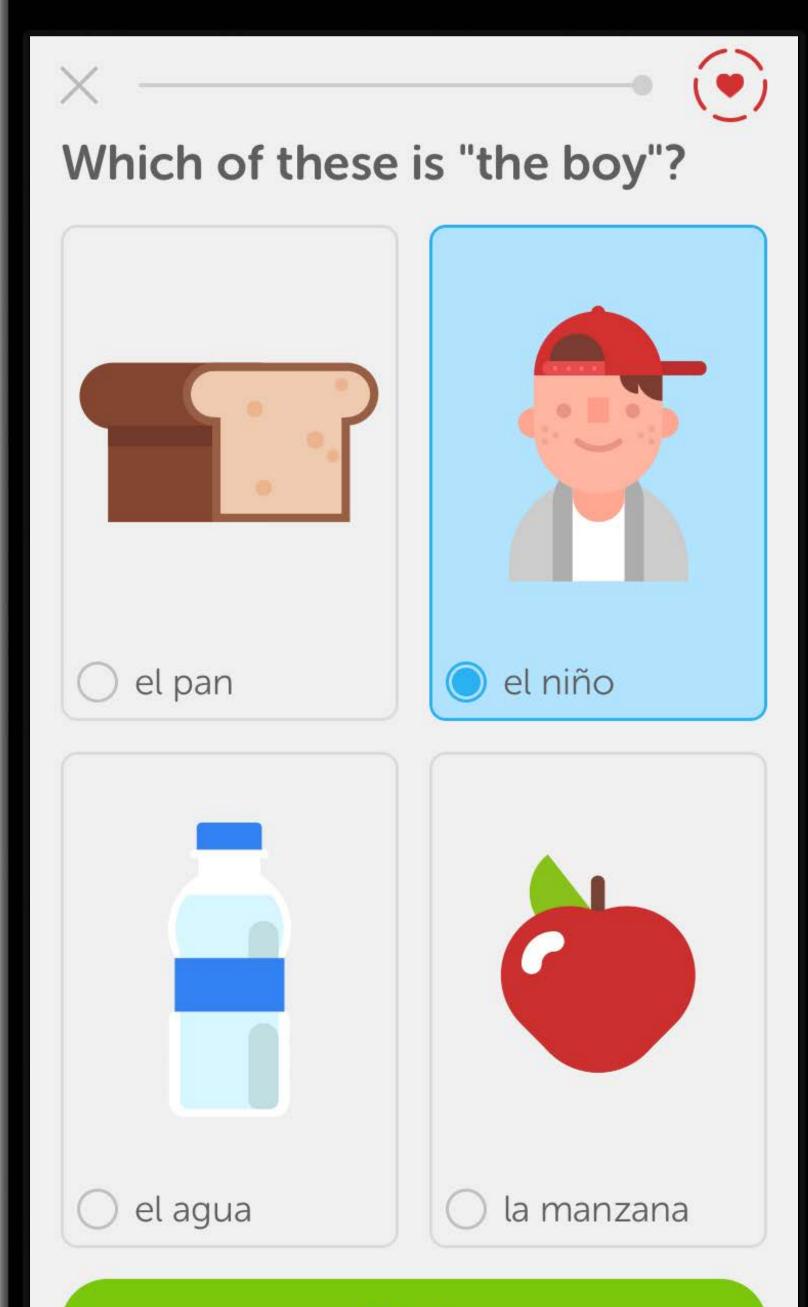


Children has a developmental disability in the US

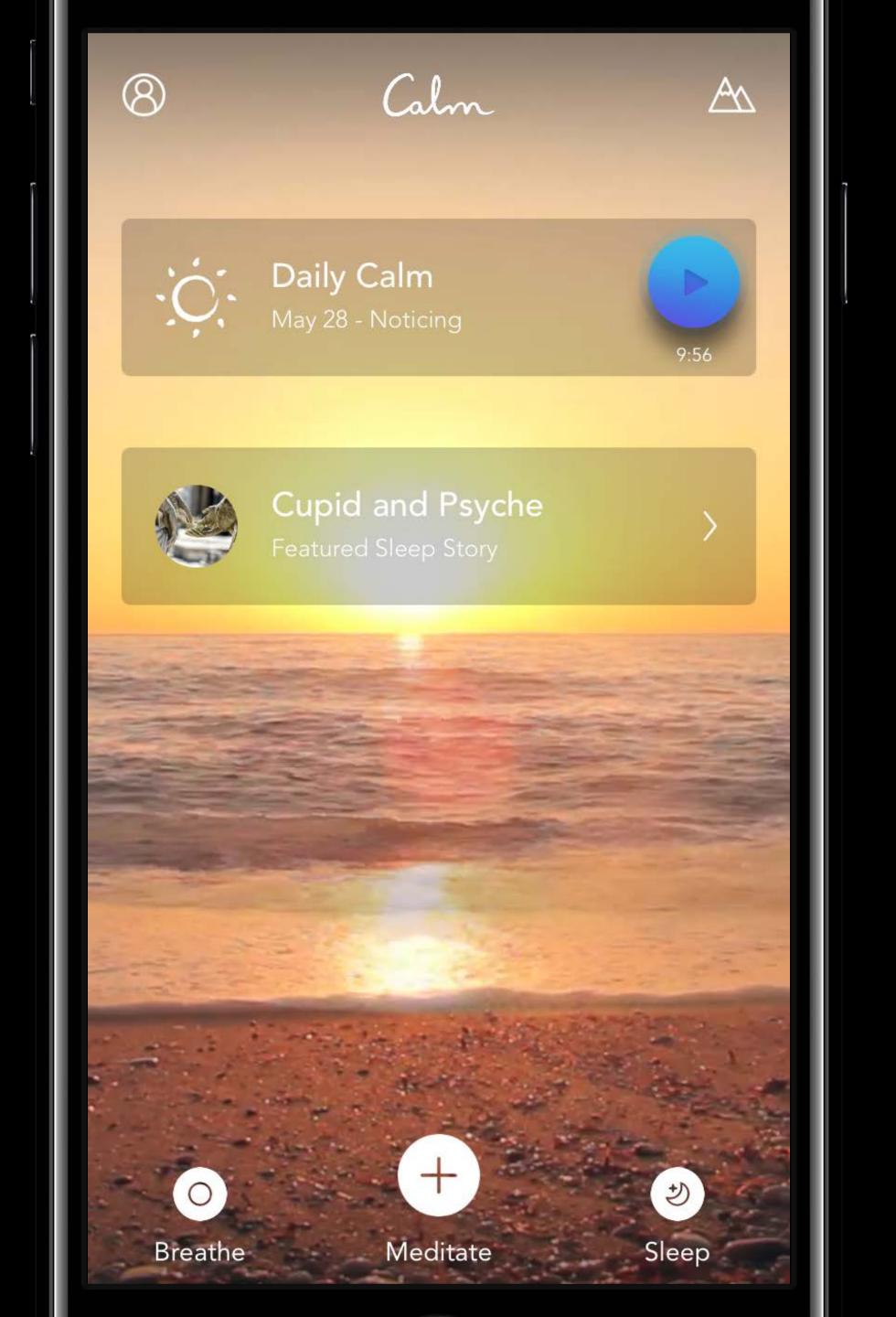


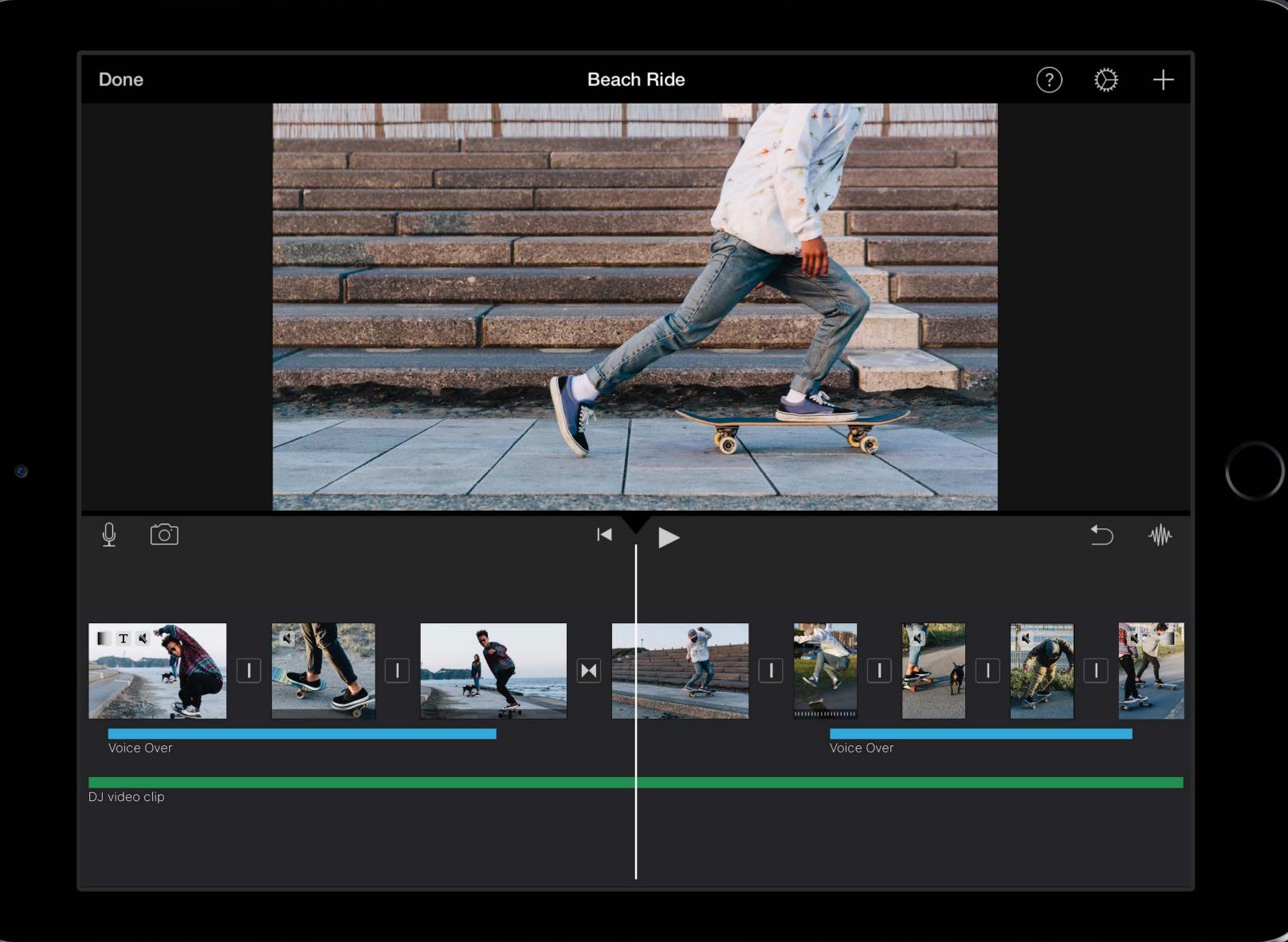






Check

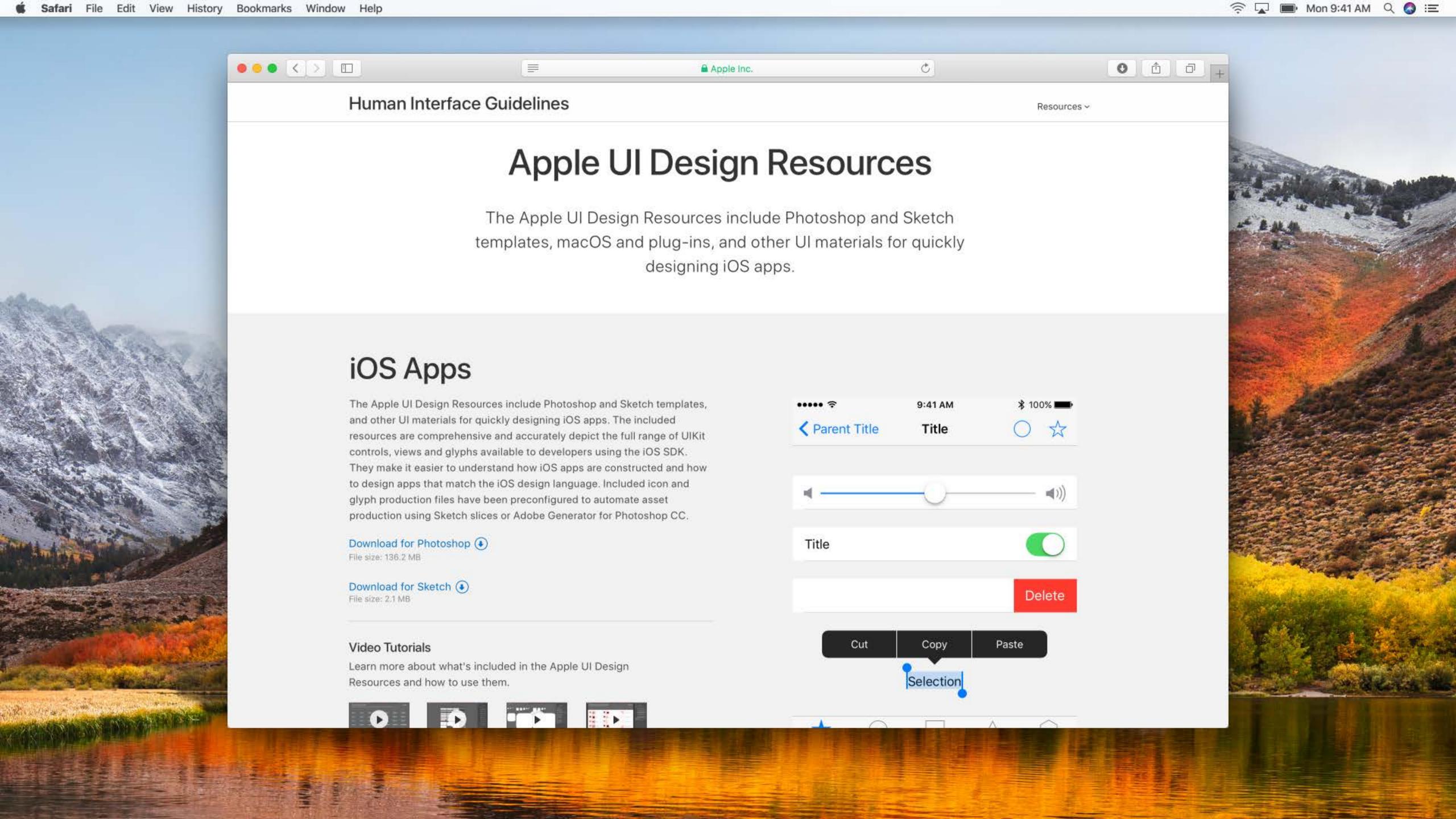


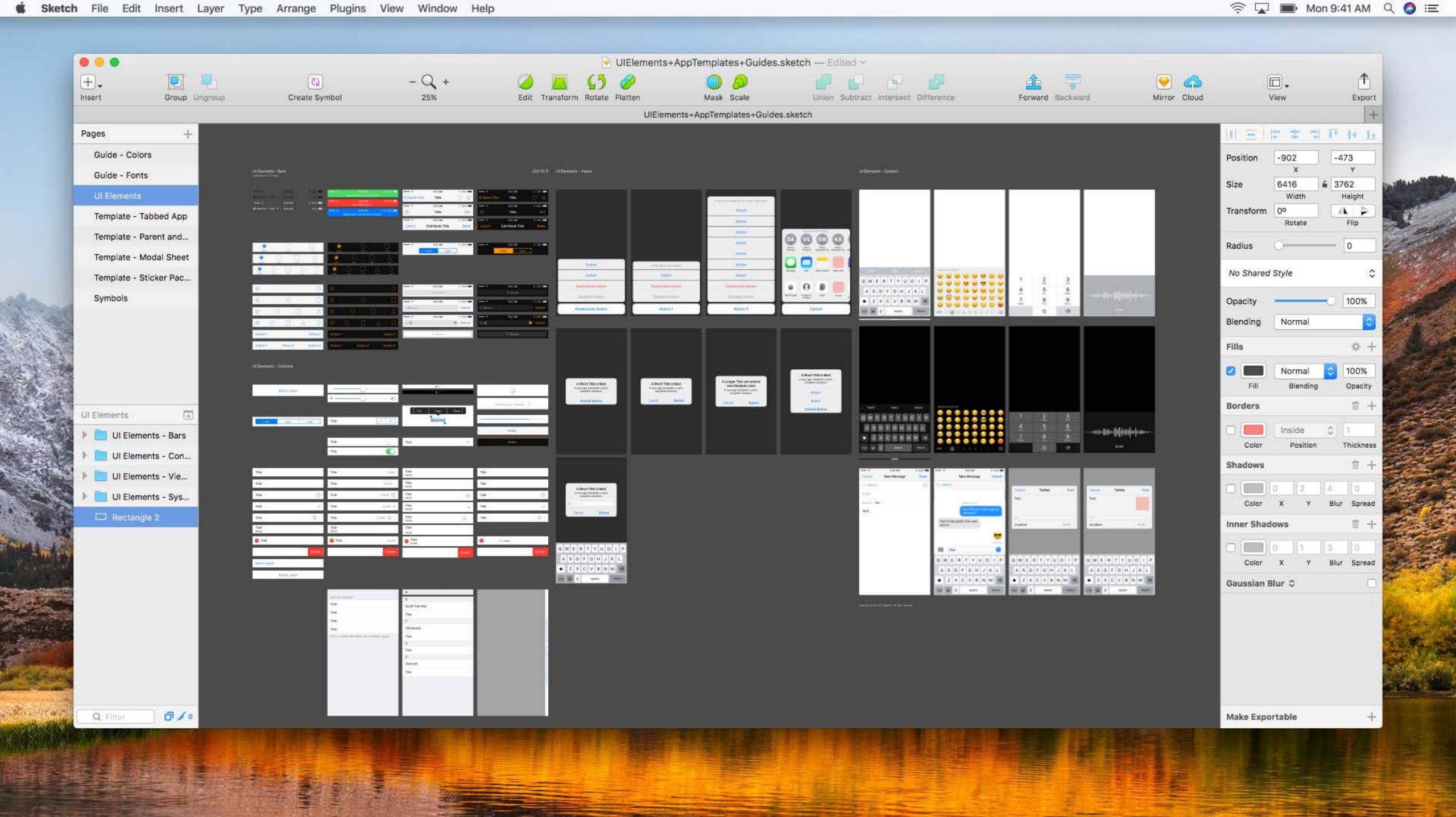


# Easy to navigate

# Quick to get started

## Consistent behavior

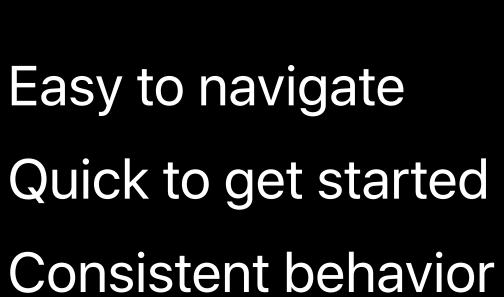




# If you learn one app, you have a serious head start on learning another.

## Outside UlKit?











### Simplicity

Easy to navigate

Quick to get started

Consistent behavior



### Perceivability



Integrity





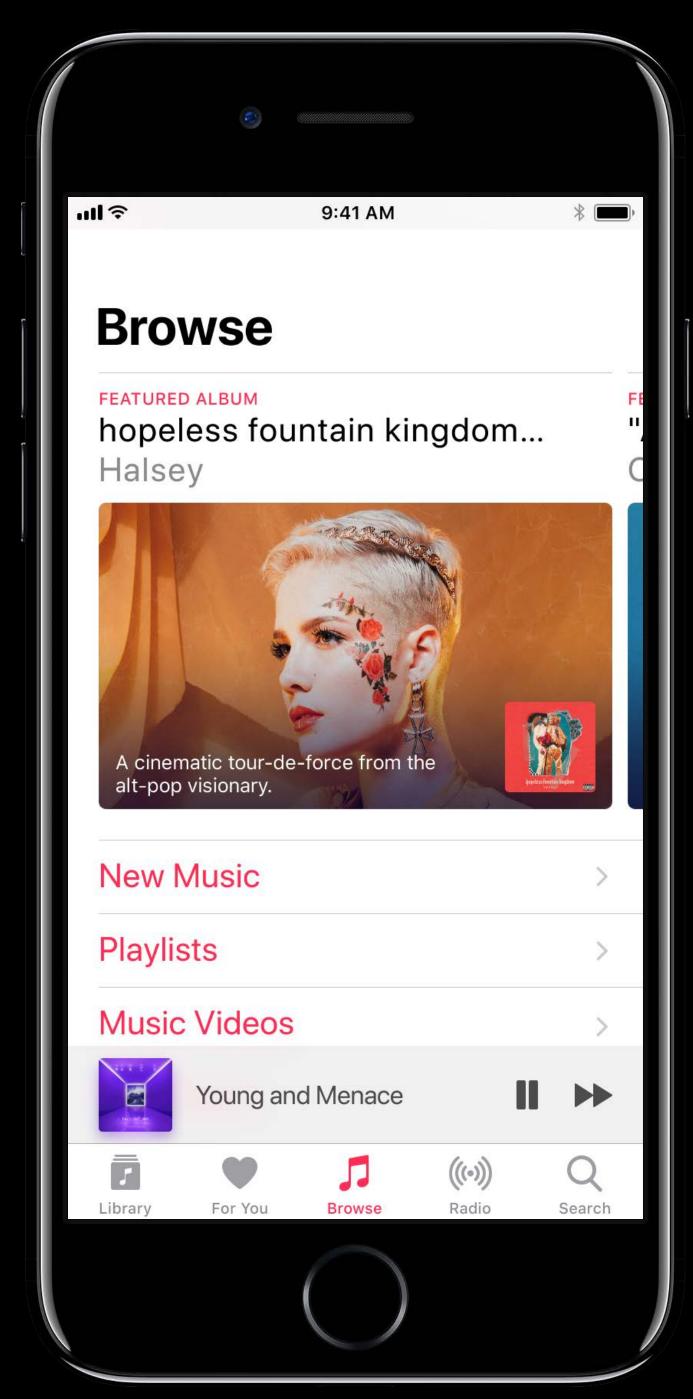
# 285 Million

People are low vision worldwide

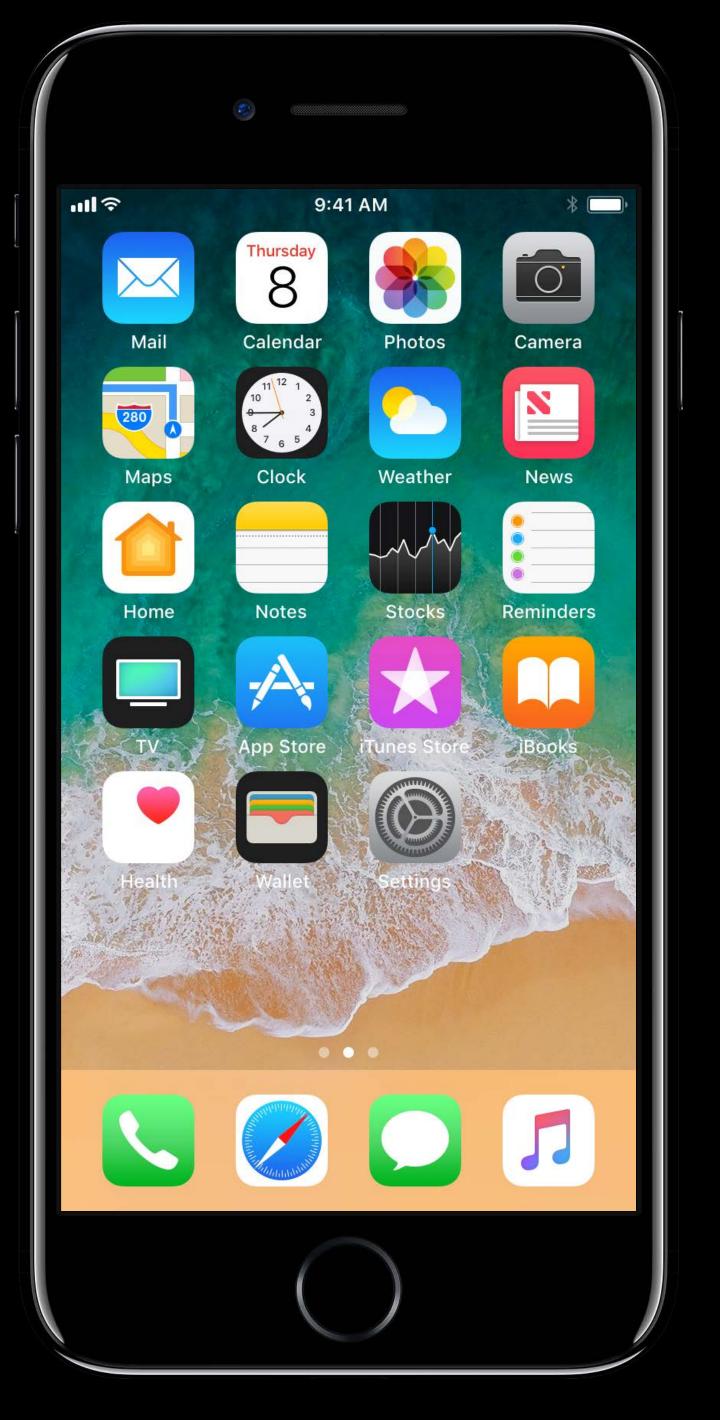
Men have a form of colorblindness

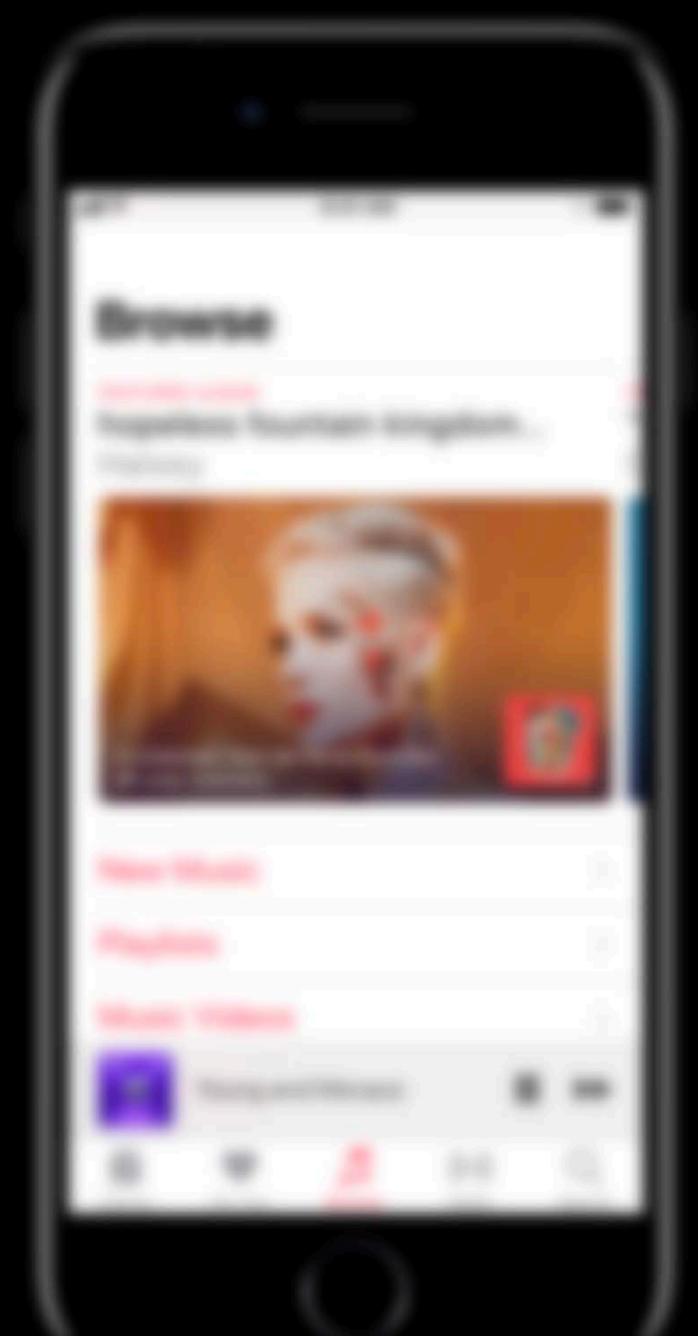
# 360 Million

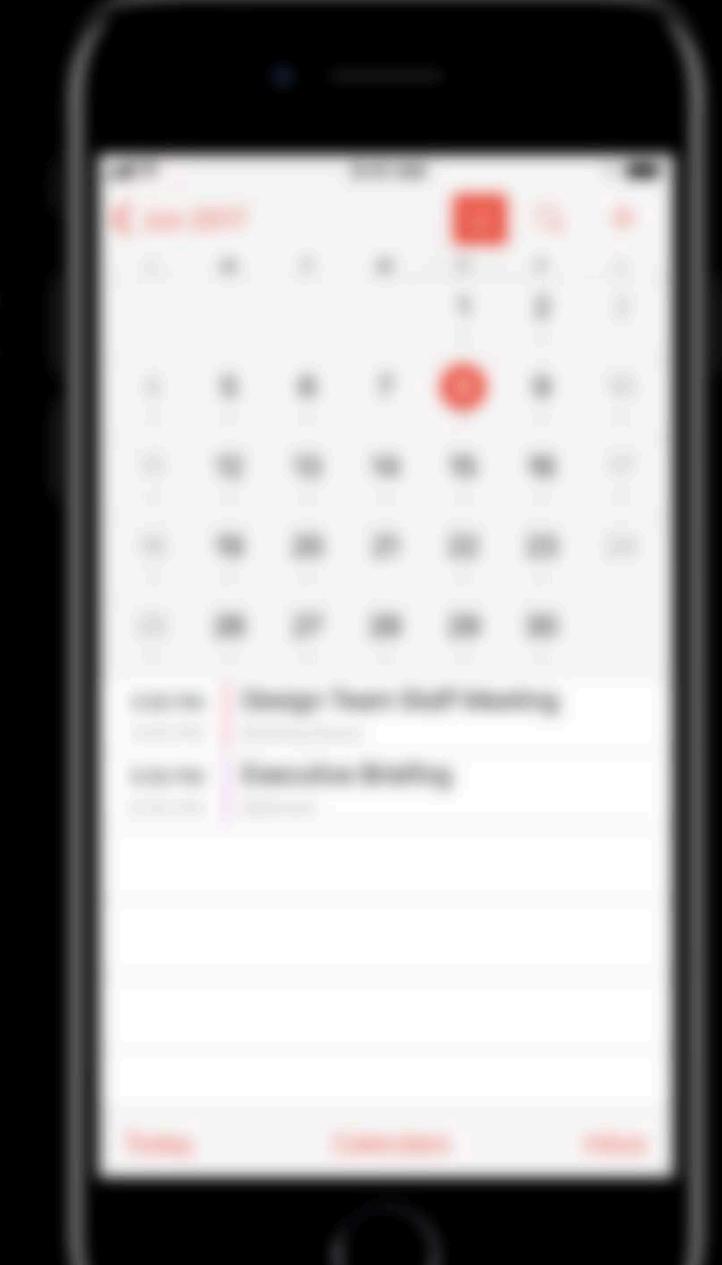
People in the world with disabling hearing loss

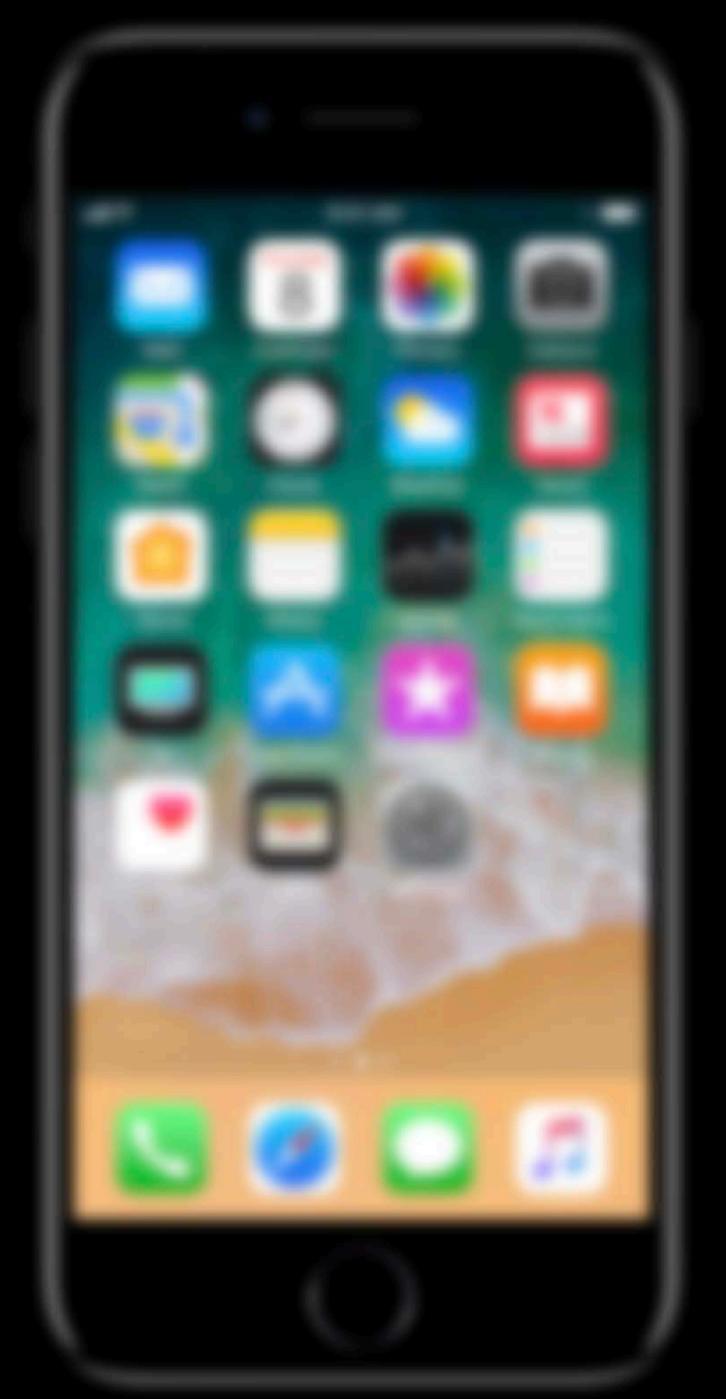






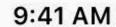






## Maximize legibility













Sourdough
No-Knead Bread
TIME 24 hours

Save Recipe

Did someone gift you a bread starter? Look no further, this is the best recipe for the non-baker. A little bit of process here and there but most of the time is waiting in between steps. Grab a bowl and a spoon and let's get started! Be sure to feed your starter afterwards more...

### Ingredients

12 oz bread flour 4 oz whole wheat flour 1 1/2 tsp salt 1/4 cup sourdough starter 1 1/2 cups purified water

### Preparation







9:41 AM





Sourdough No-Knead...





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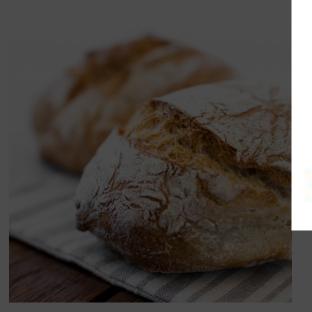
9:41 AM





### Sourdough No-Knead...





Sourdough No-Knead Bread TIME 24 hours

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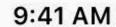
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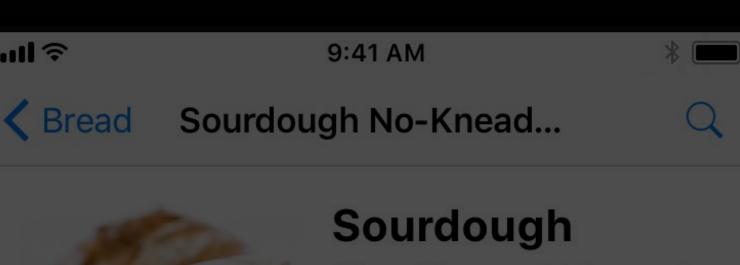
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### **No-Knead Bread**

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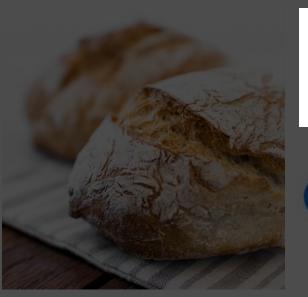




**Sread** 

Sourdough No-Knead...





### Sourdough No-Knead Bread

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### Bread Sourdough No-Knead...





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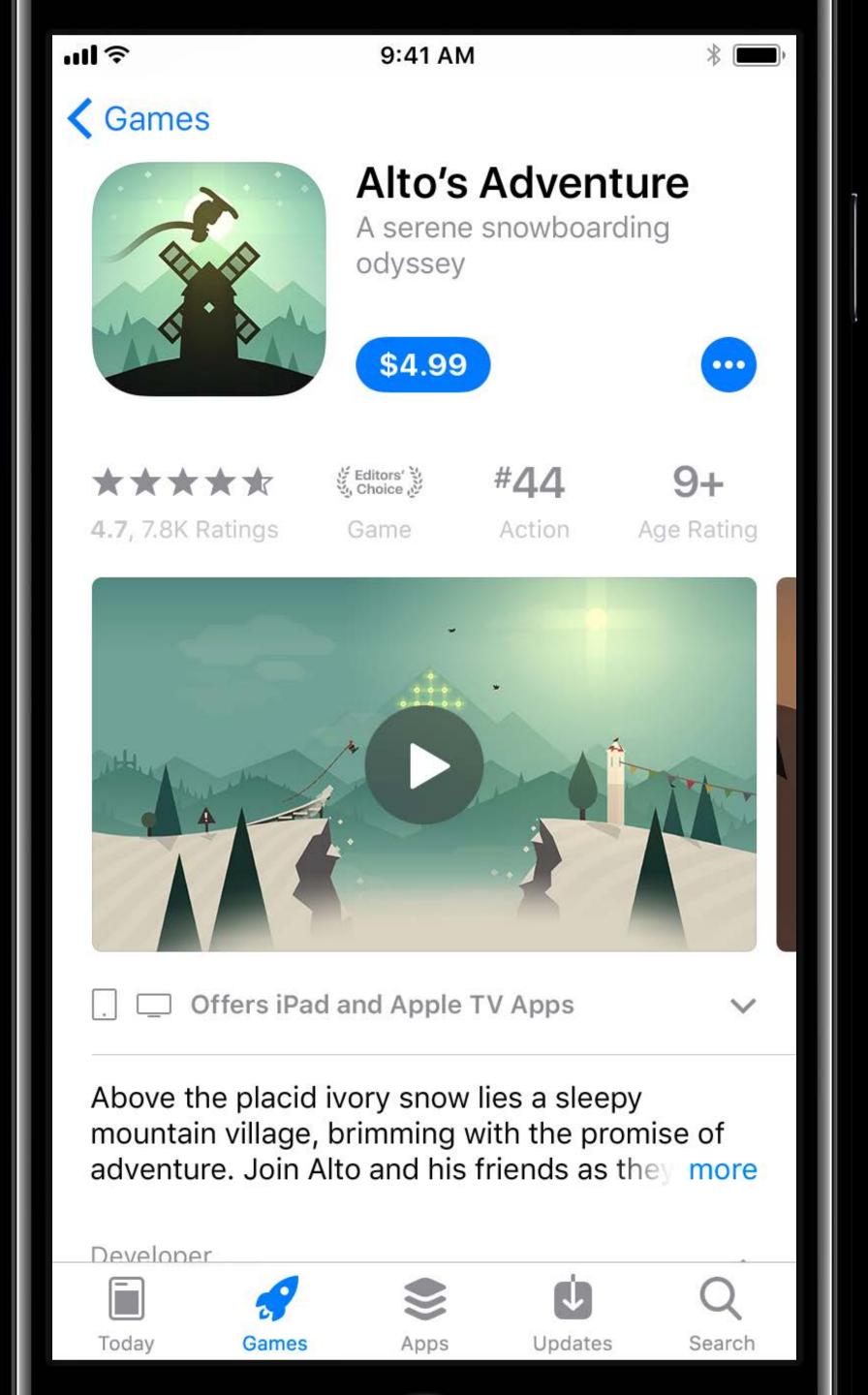
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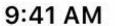
### **Preparation**















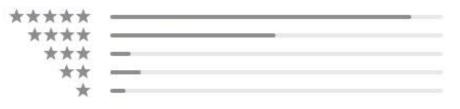




### **Ratings & Reviews**

See All

4.7



out of 5

7,867 Ratings

### **Truly Amazing Game**

1d ago



CuriousFox25

This game is wonderful and highly enjoyable for the entire family! I love how easy it is to pick up and play wherever you are. If you need an infinite runner to play with the kids, this is the one to get. After a long day, the colorful visuals and cheery music always put me in a good mood more



In this gorgeous twist on the infinite runner, you guide an agile snowboarder down a never ending mountain, pullim more

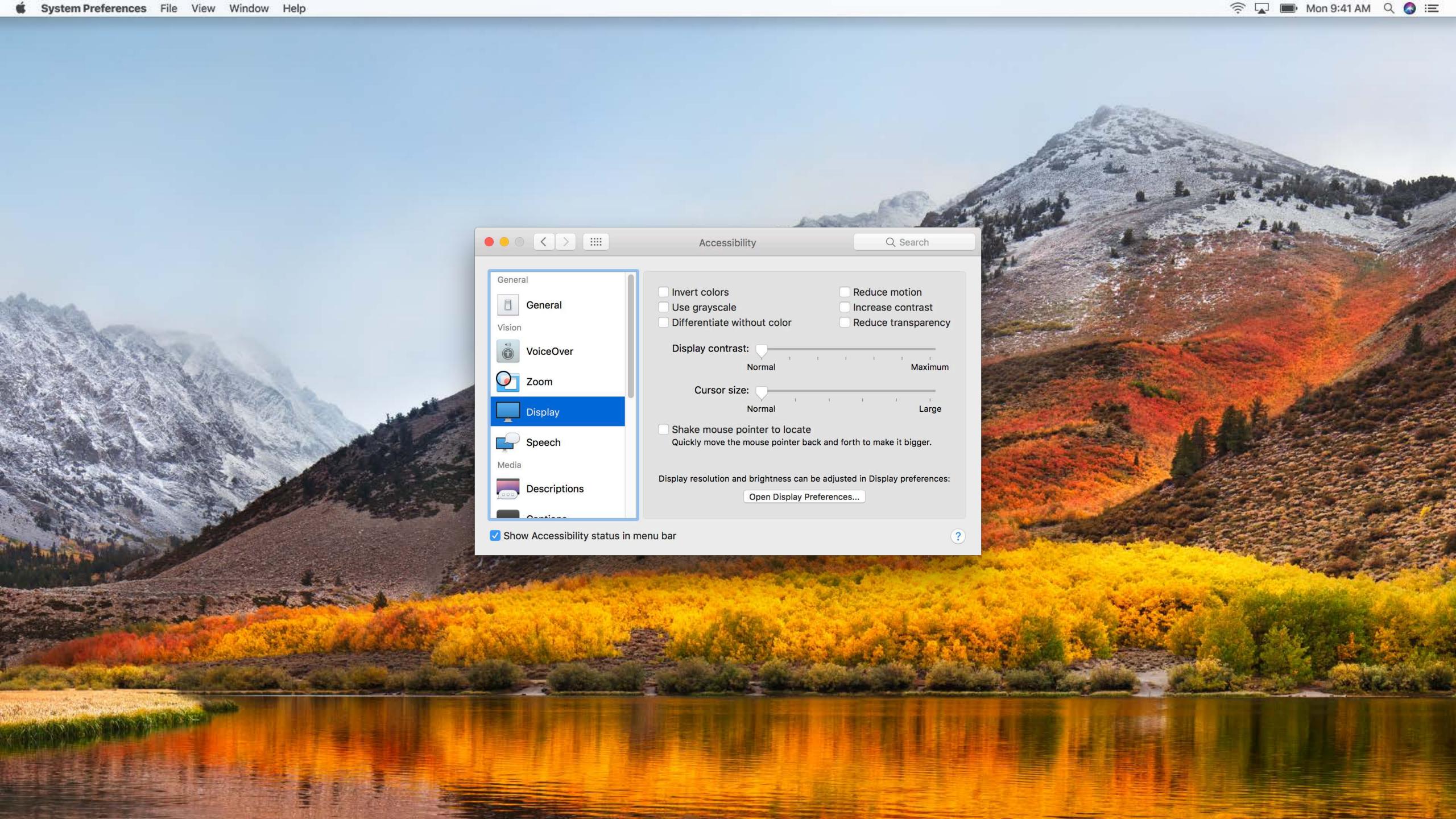


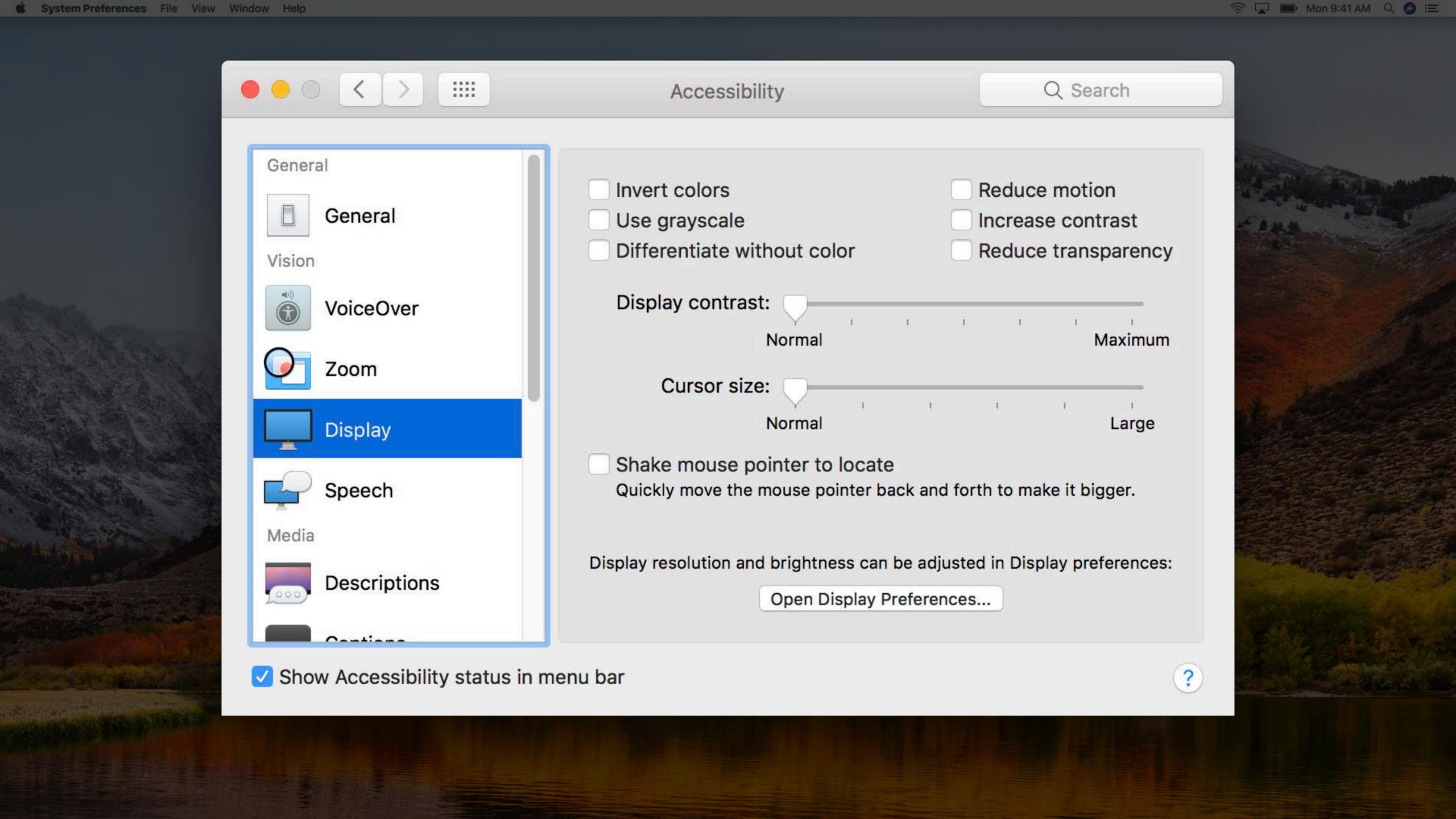


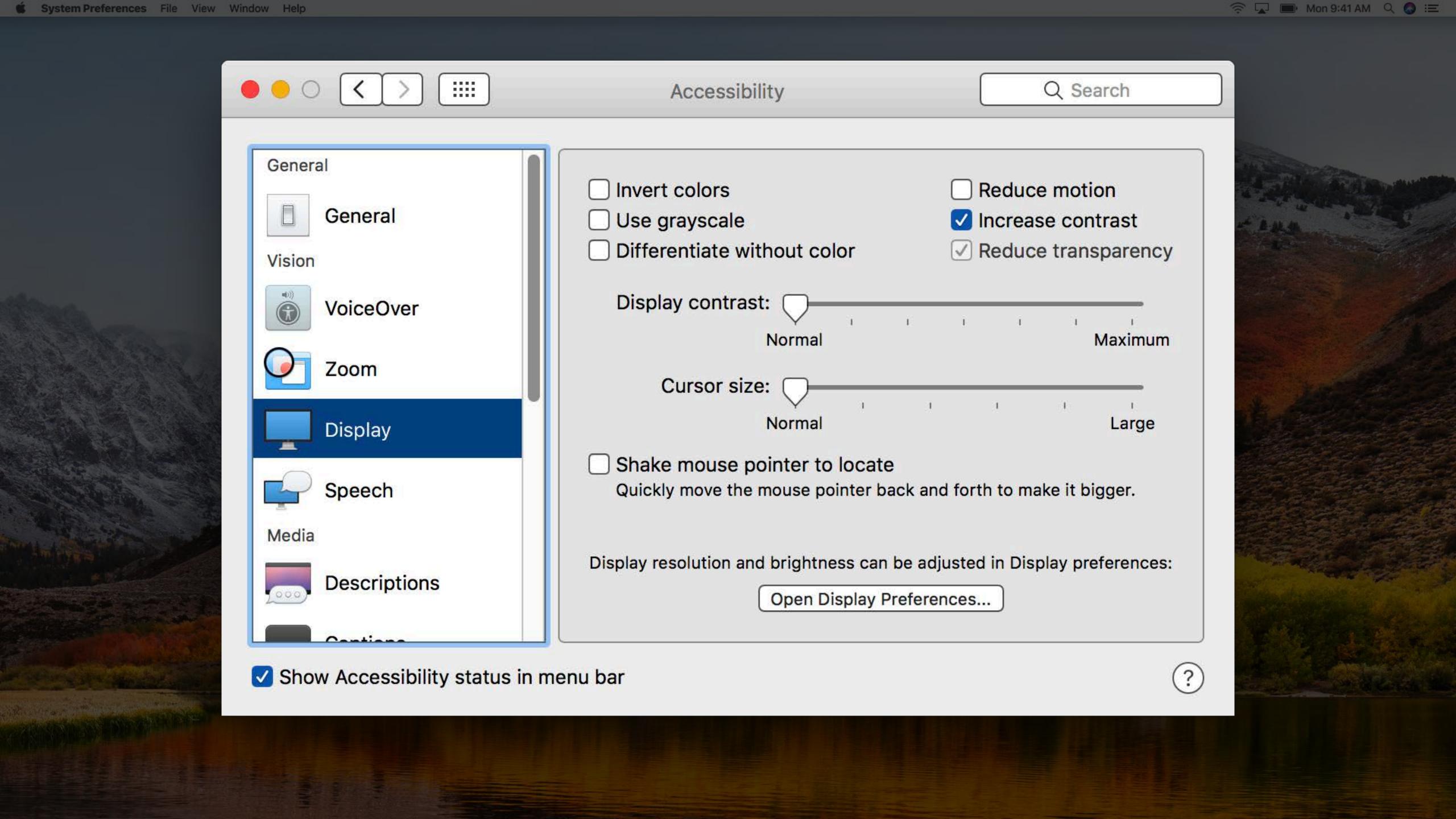


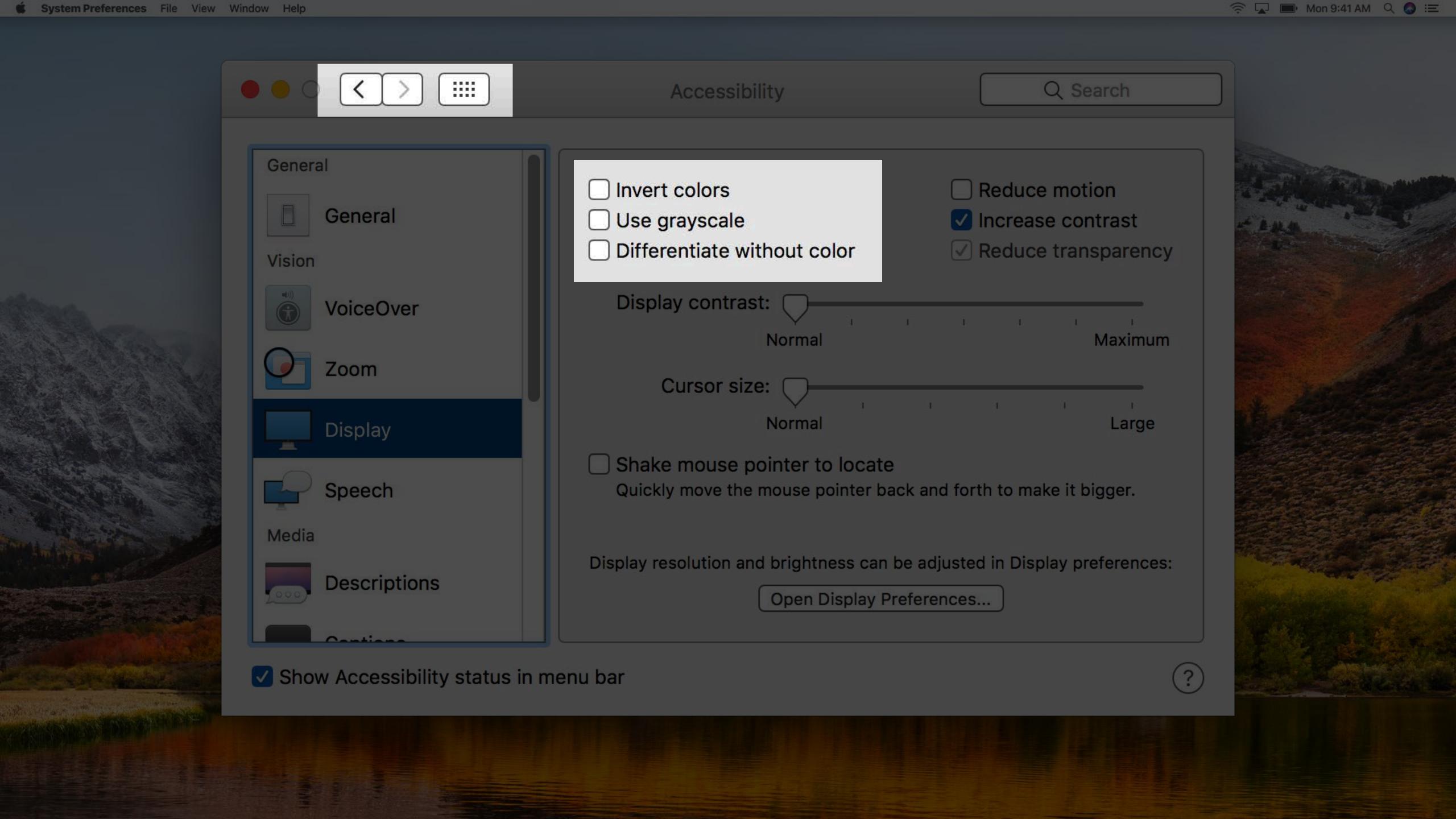


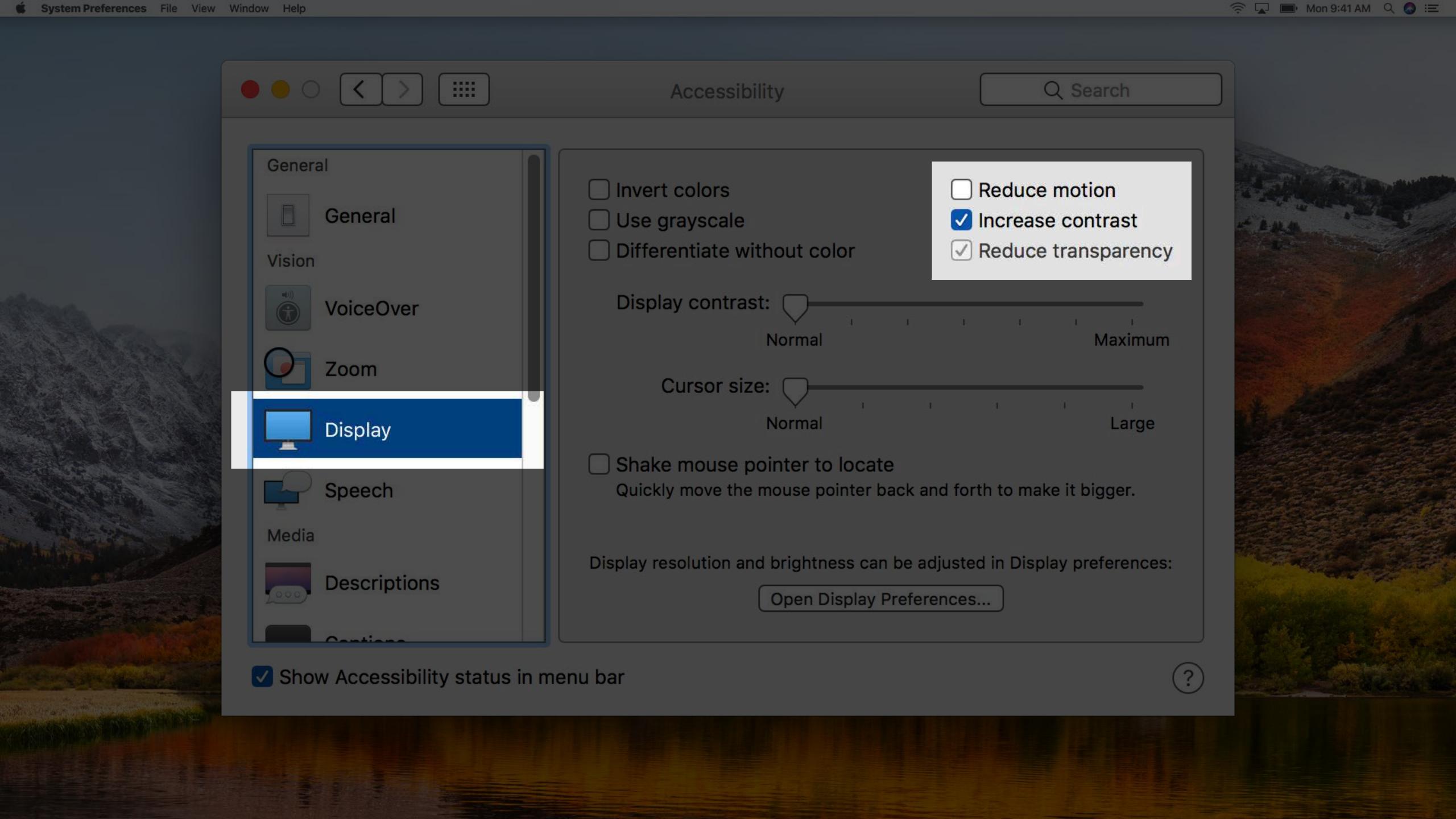


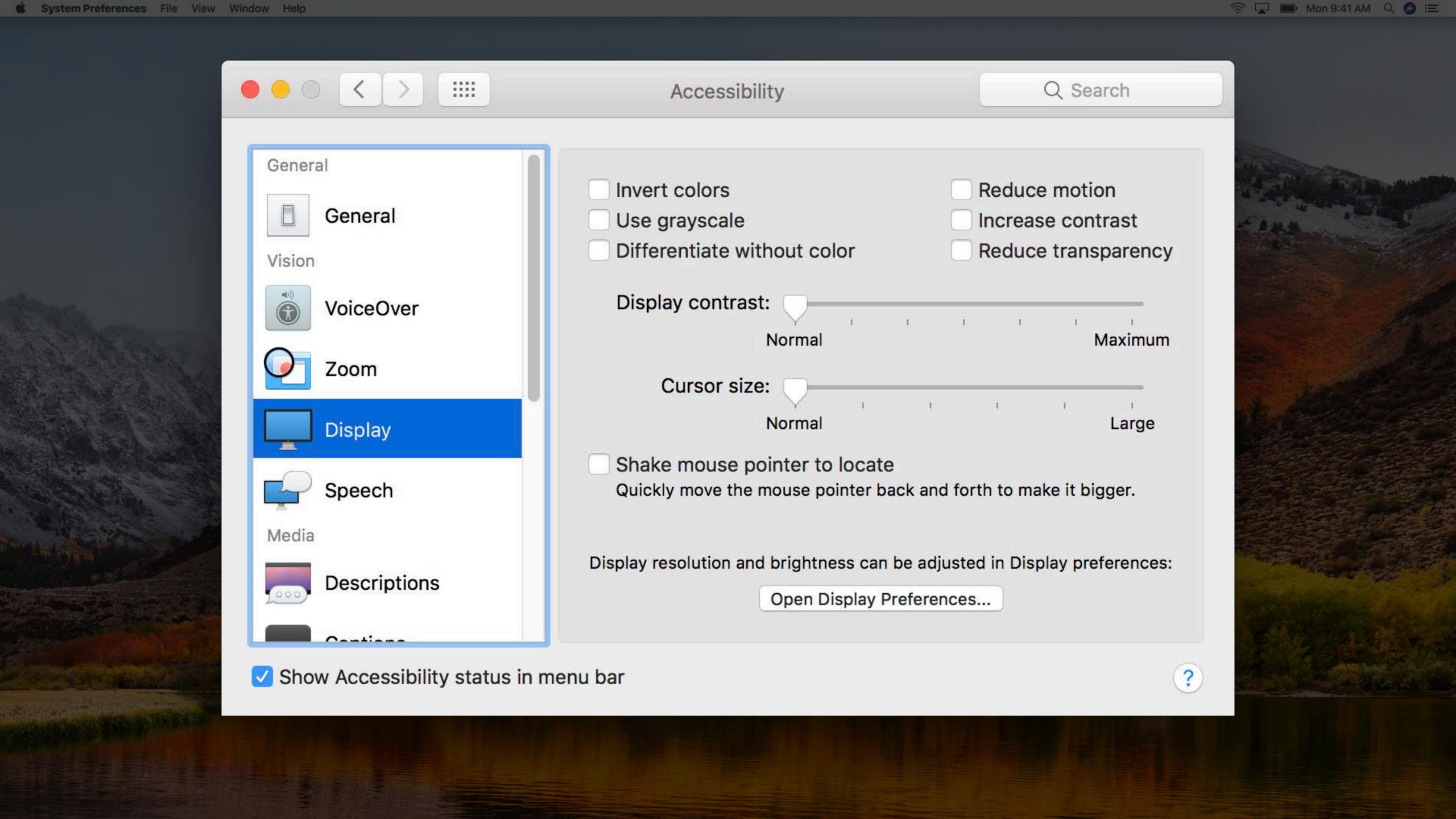


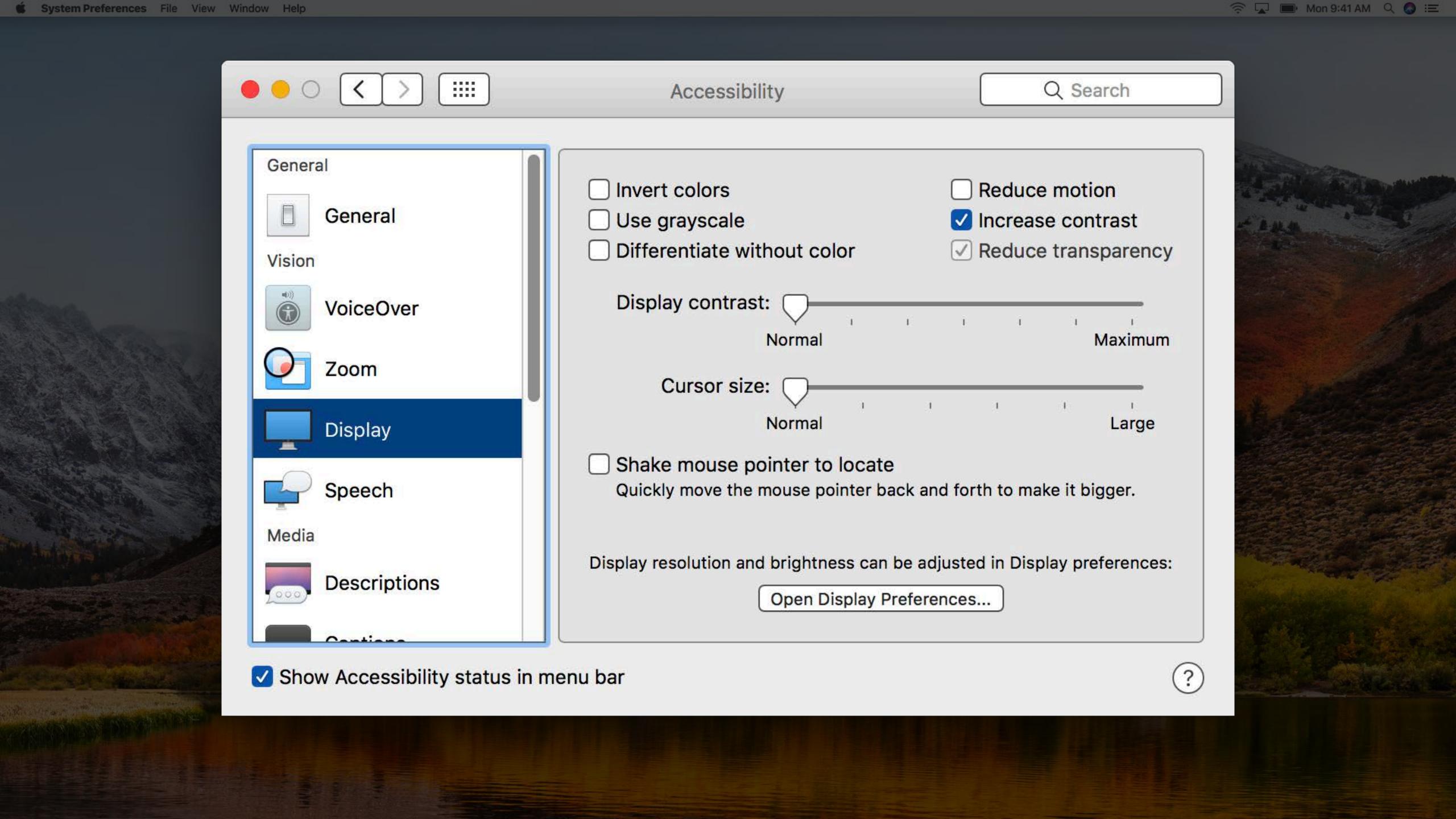




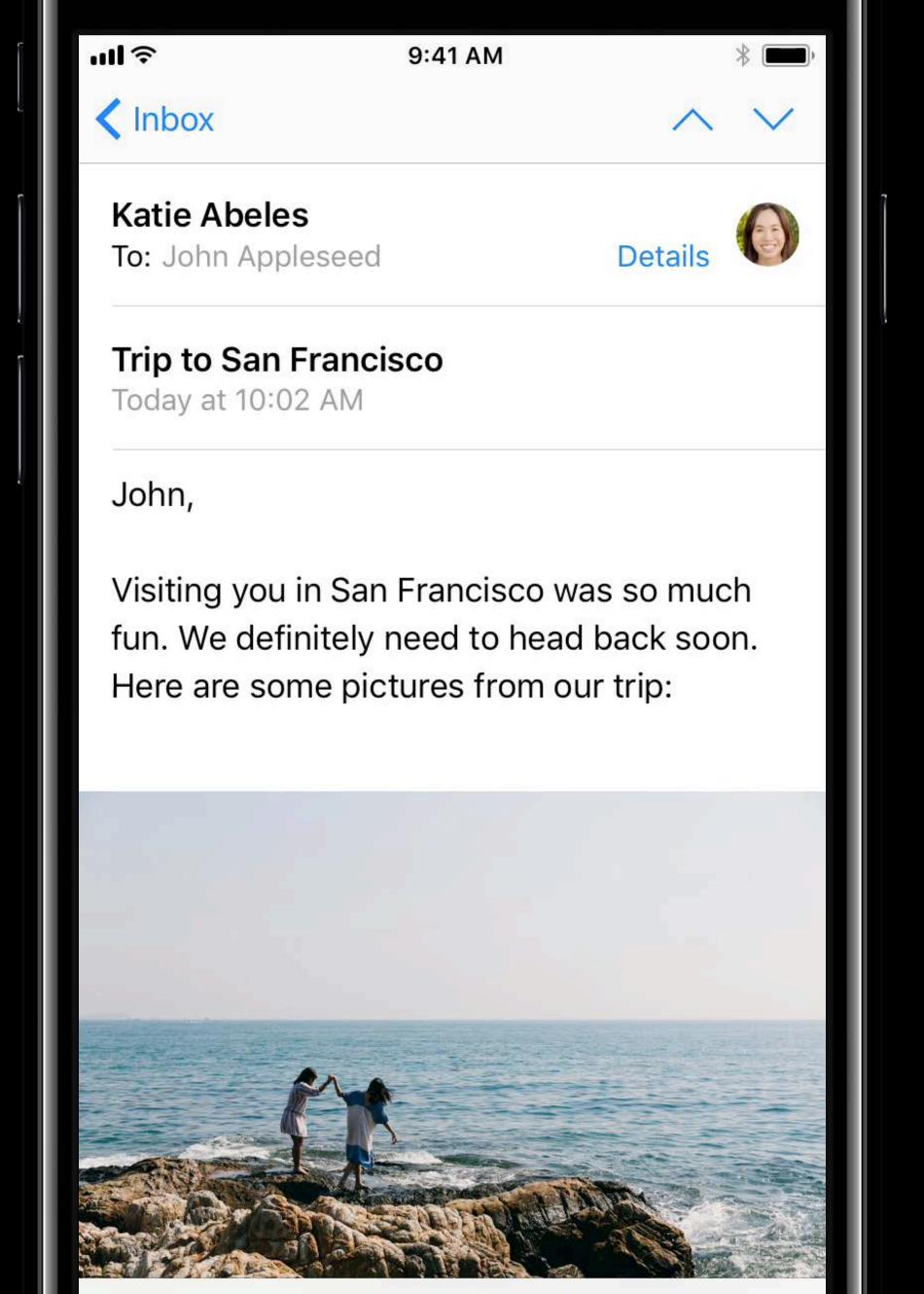








## Dynamic Type



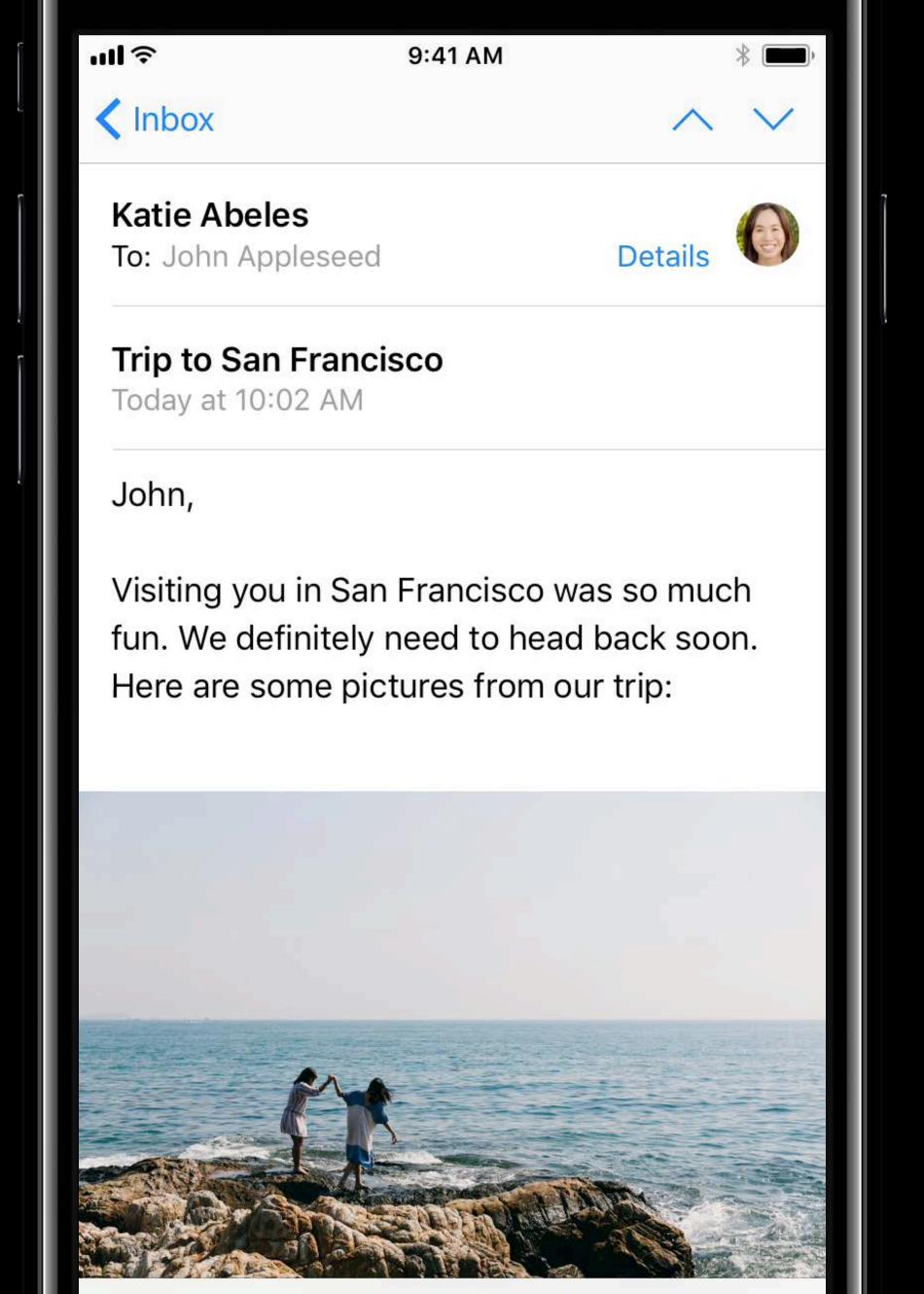












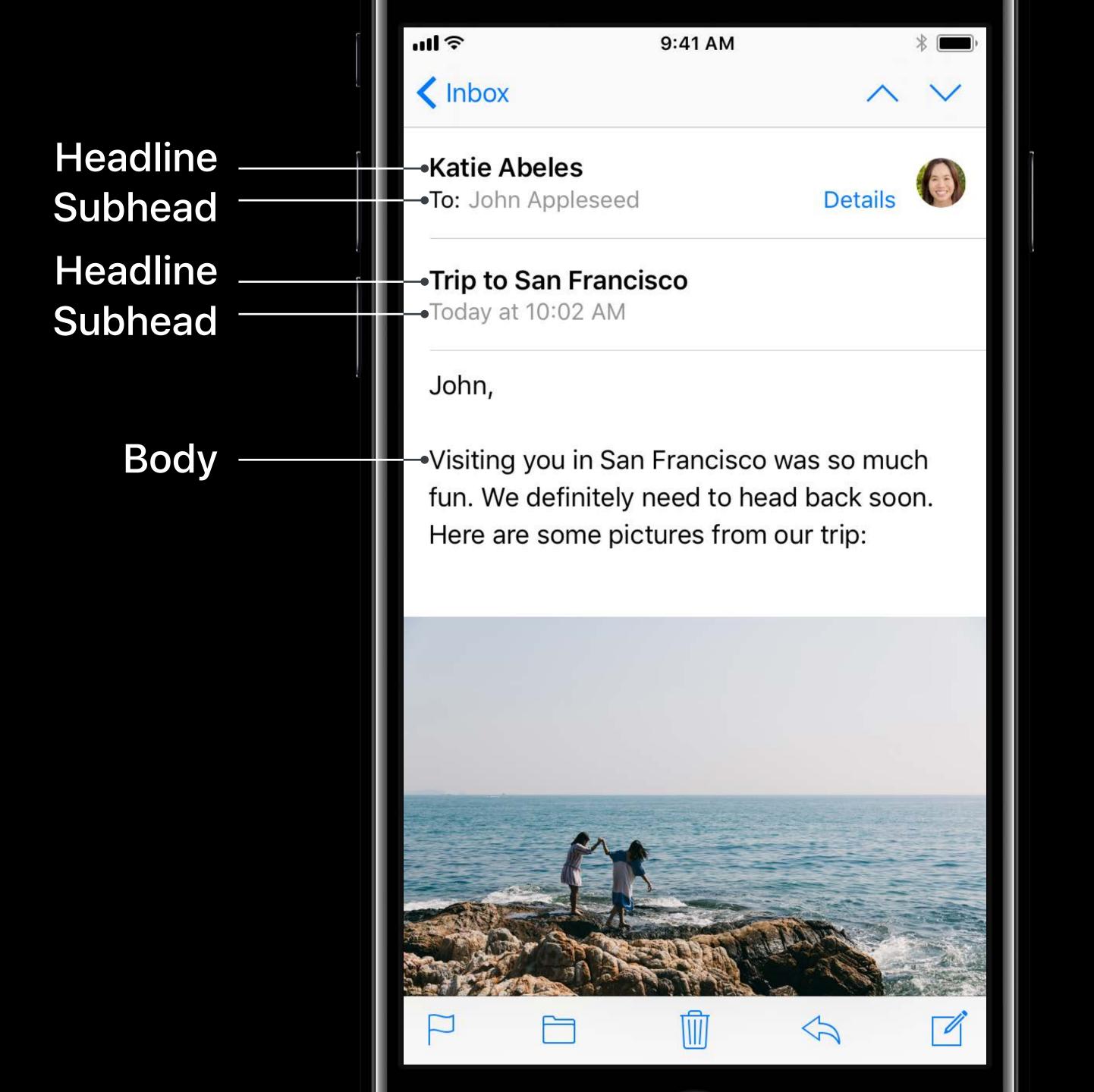




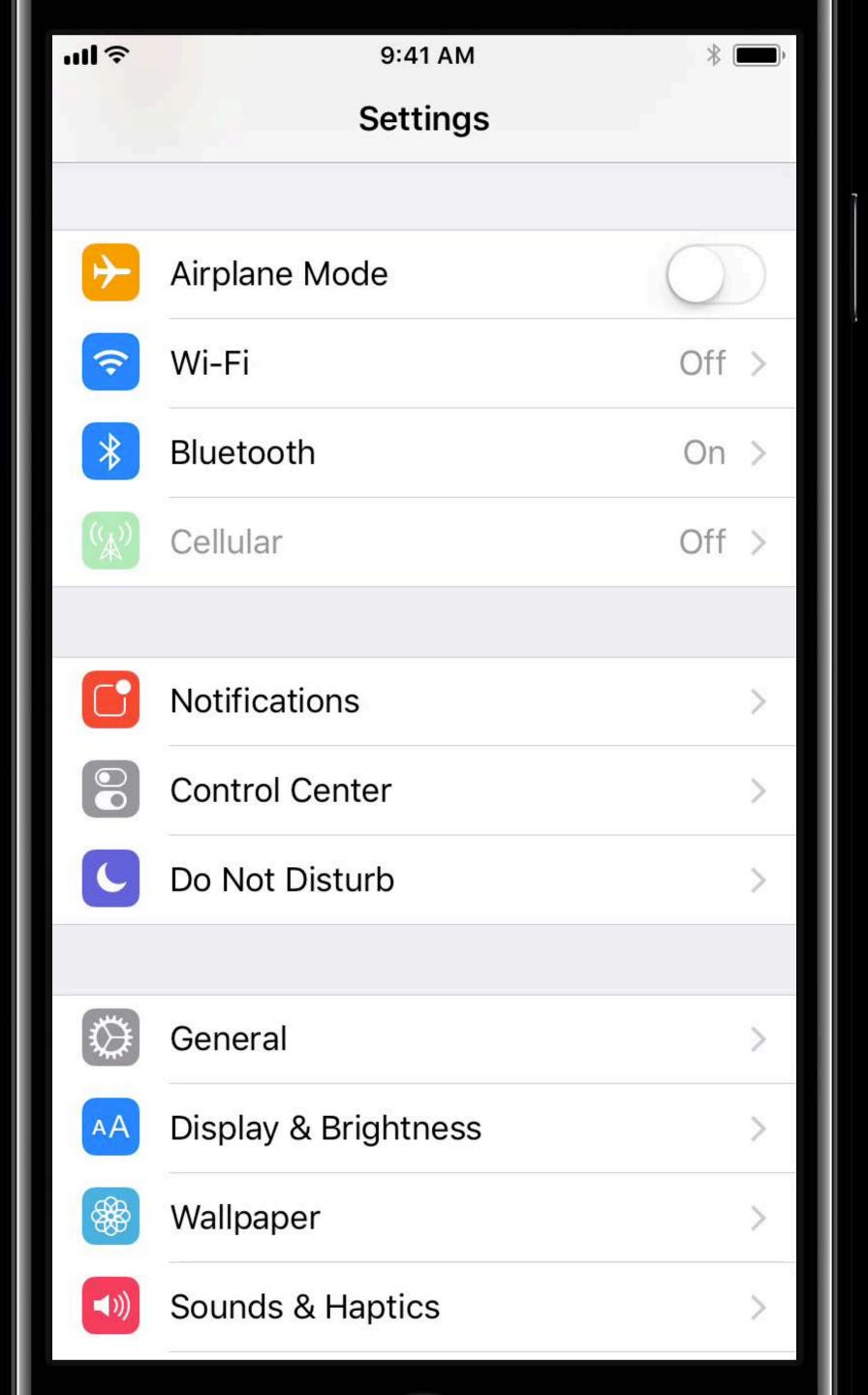


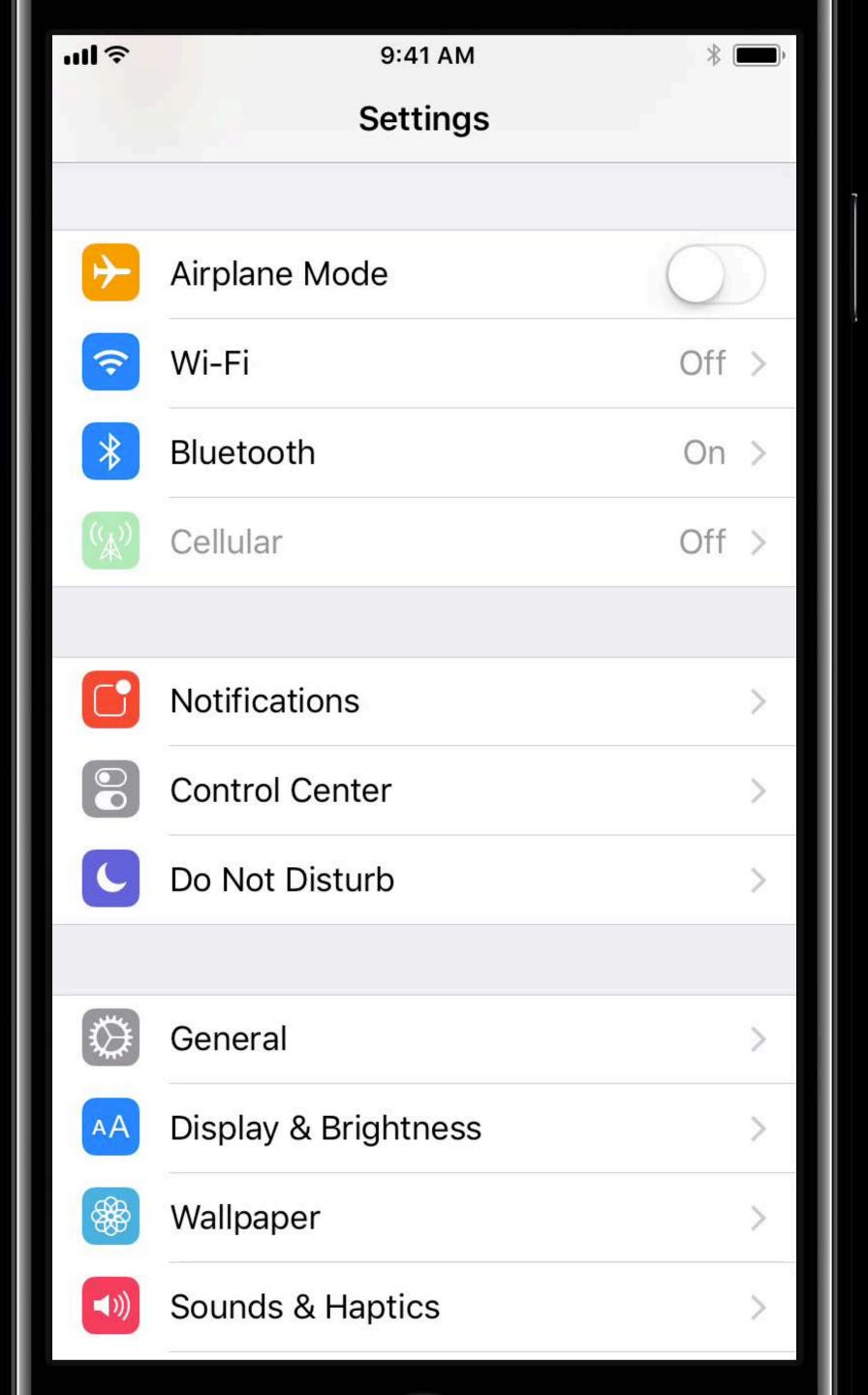












Make as much text dynamic as possible

Make as much text dynamic as possible

Use as much of the screen width for text

Make as much text dynamic as possible

Use as much of the screen width for text

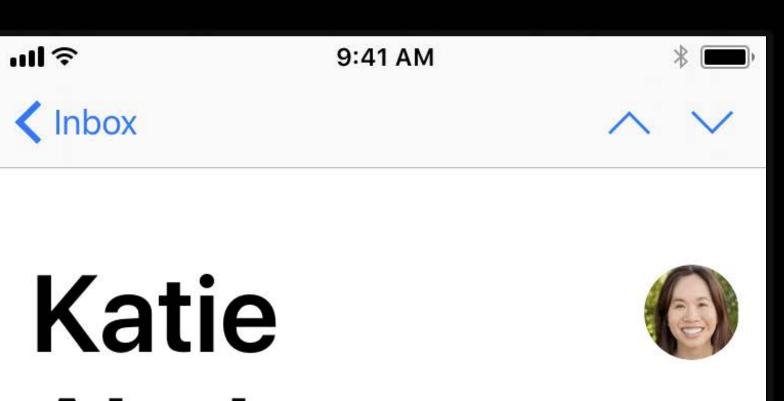
Display the same amount of text as the default UI

Make as much text dynamic as possible

Use as much of the screen width for text

Display the same amount of text as the default UI

Scale necessary content glyphs



# Abeles

To: John Appleseed

Details

### Trip to San Francisco

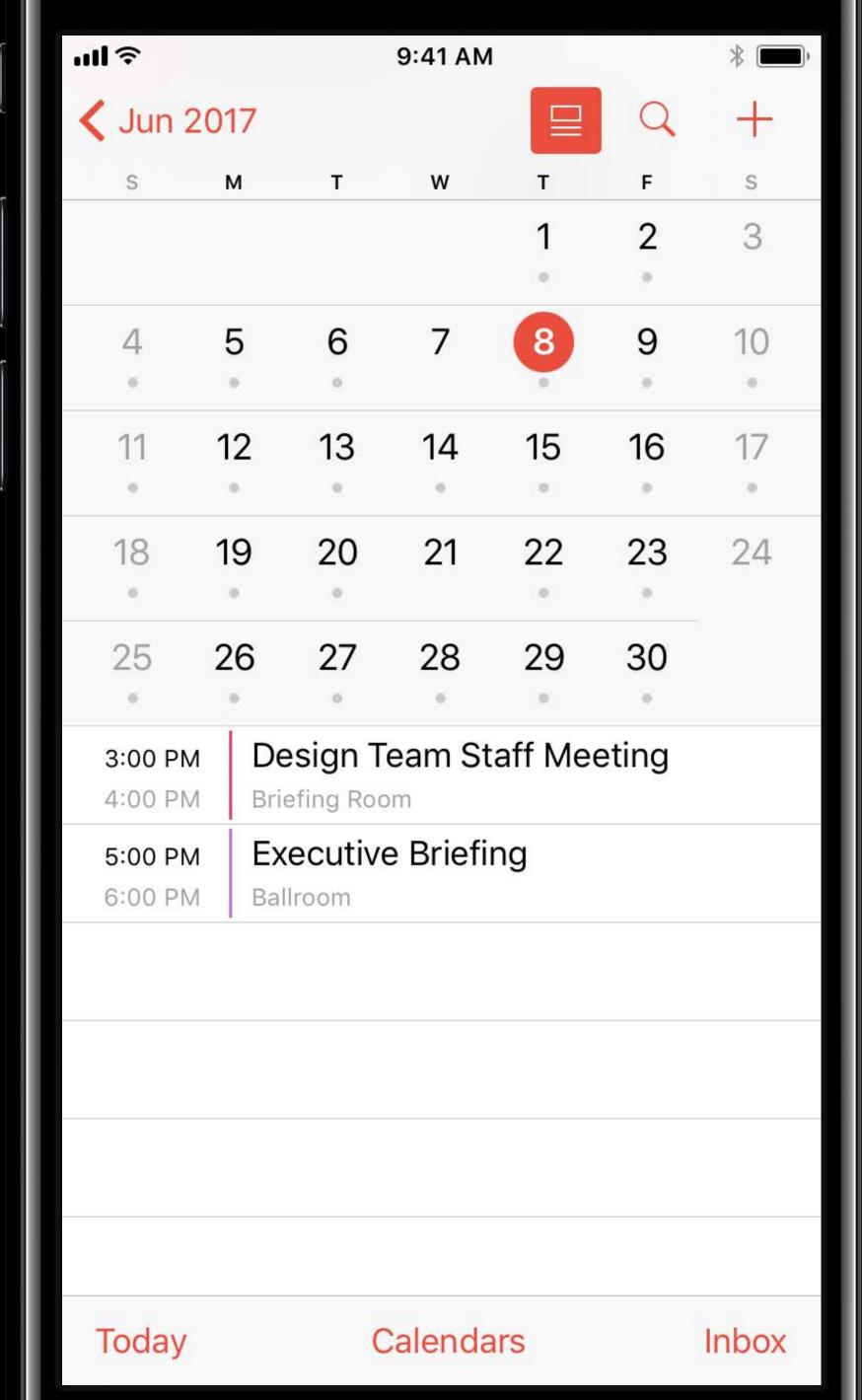


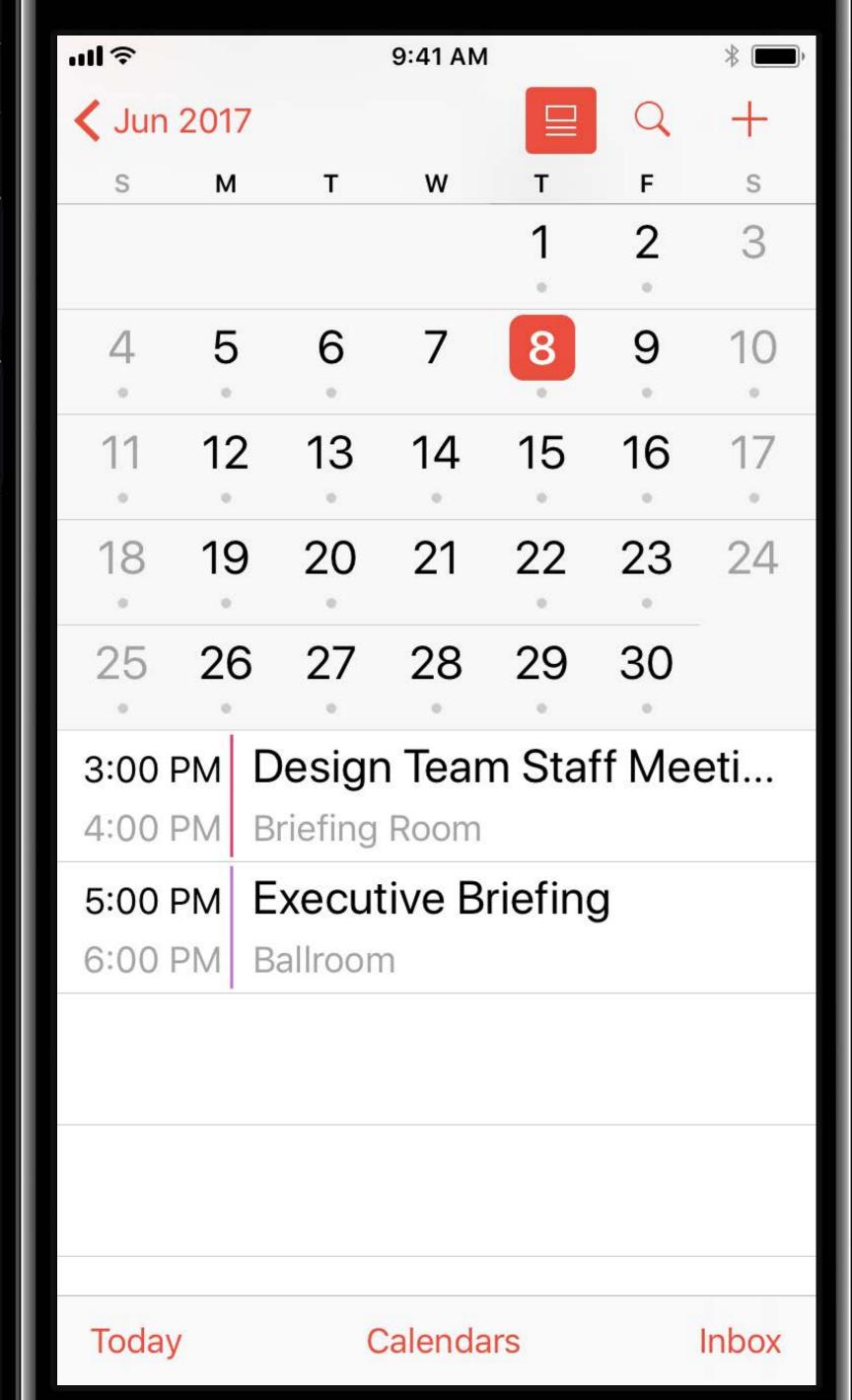


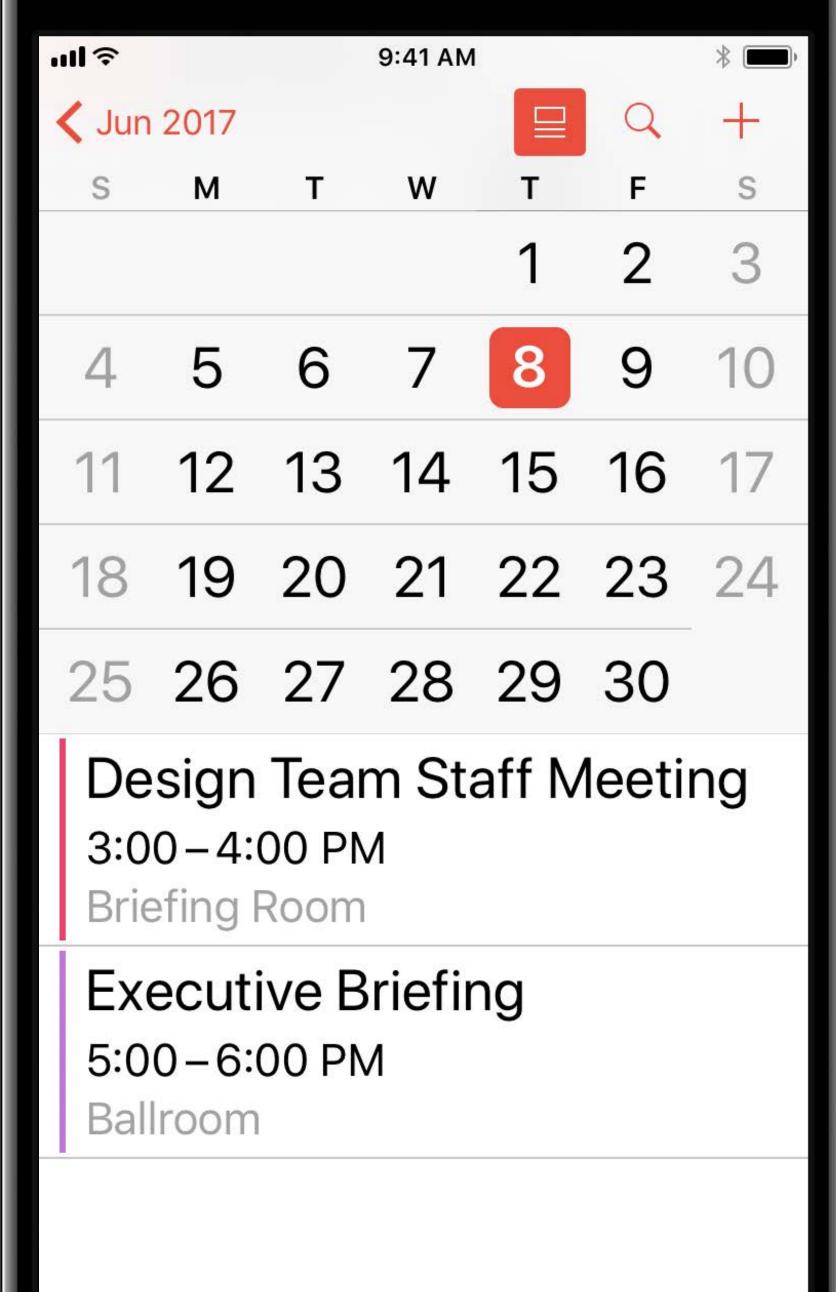














### Design Team Staff Meeting

3:00-4:00 PM

Briefing Room

C.,,

Today

Calendars

Inbox

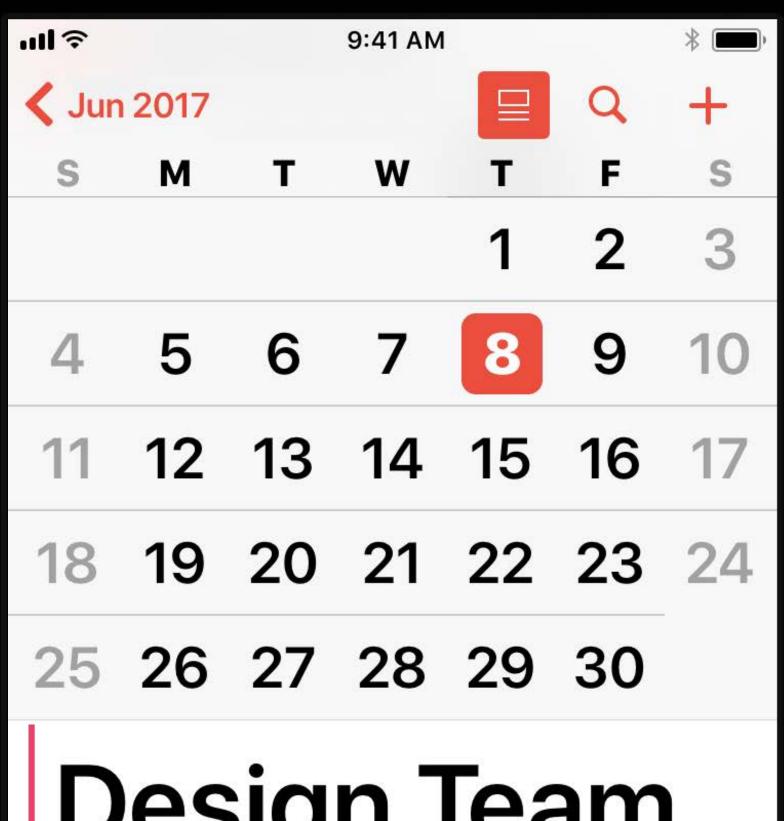


# Design Team Staff Meeting 3:00-4:00 PM

Briefing Room

Today Calendars Inbox





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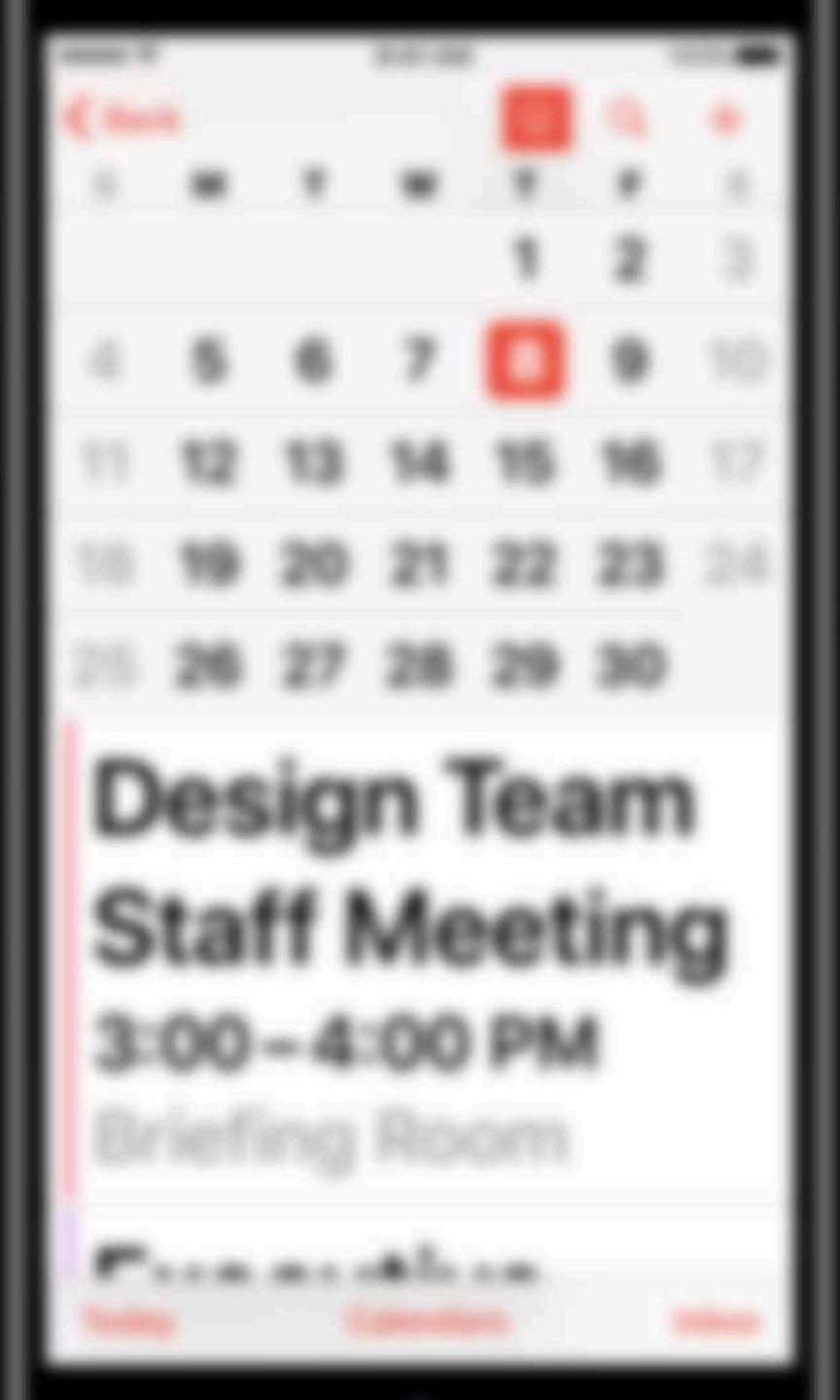
Briefing Room

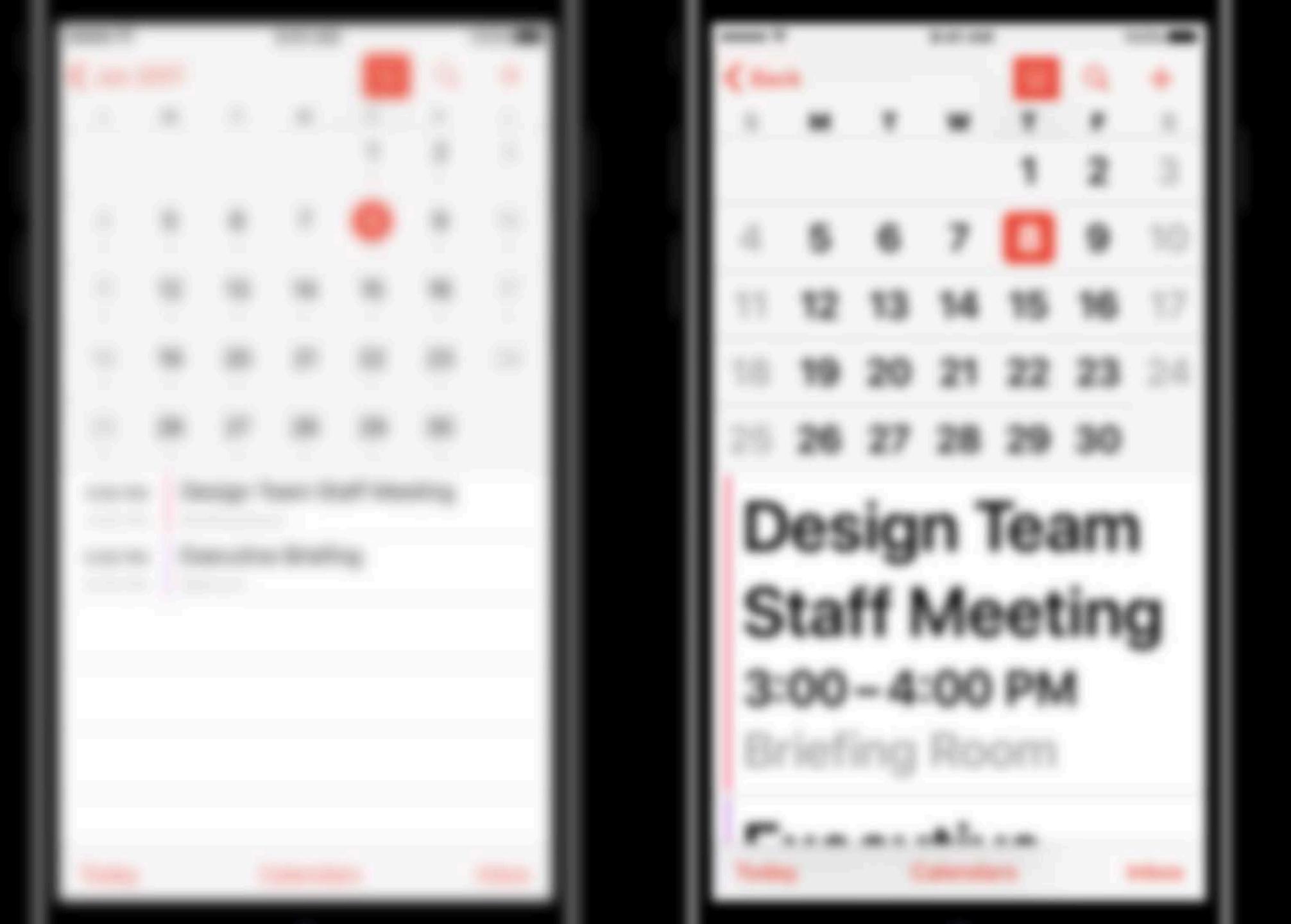
C.,\_\_\_\_:.,\_

Today

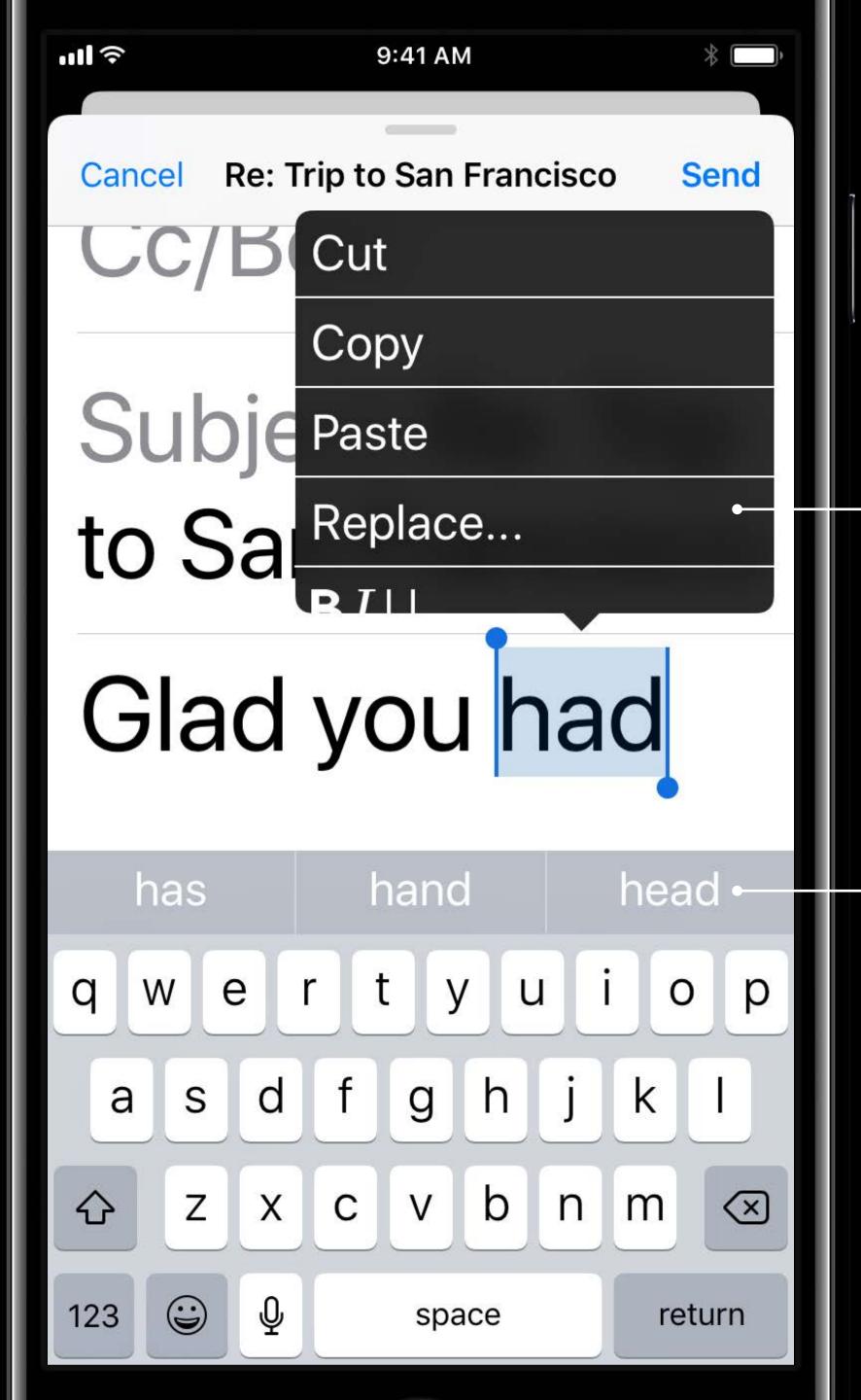
Calendars

Inbox



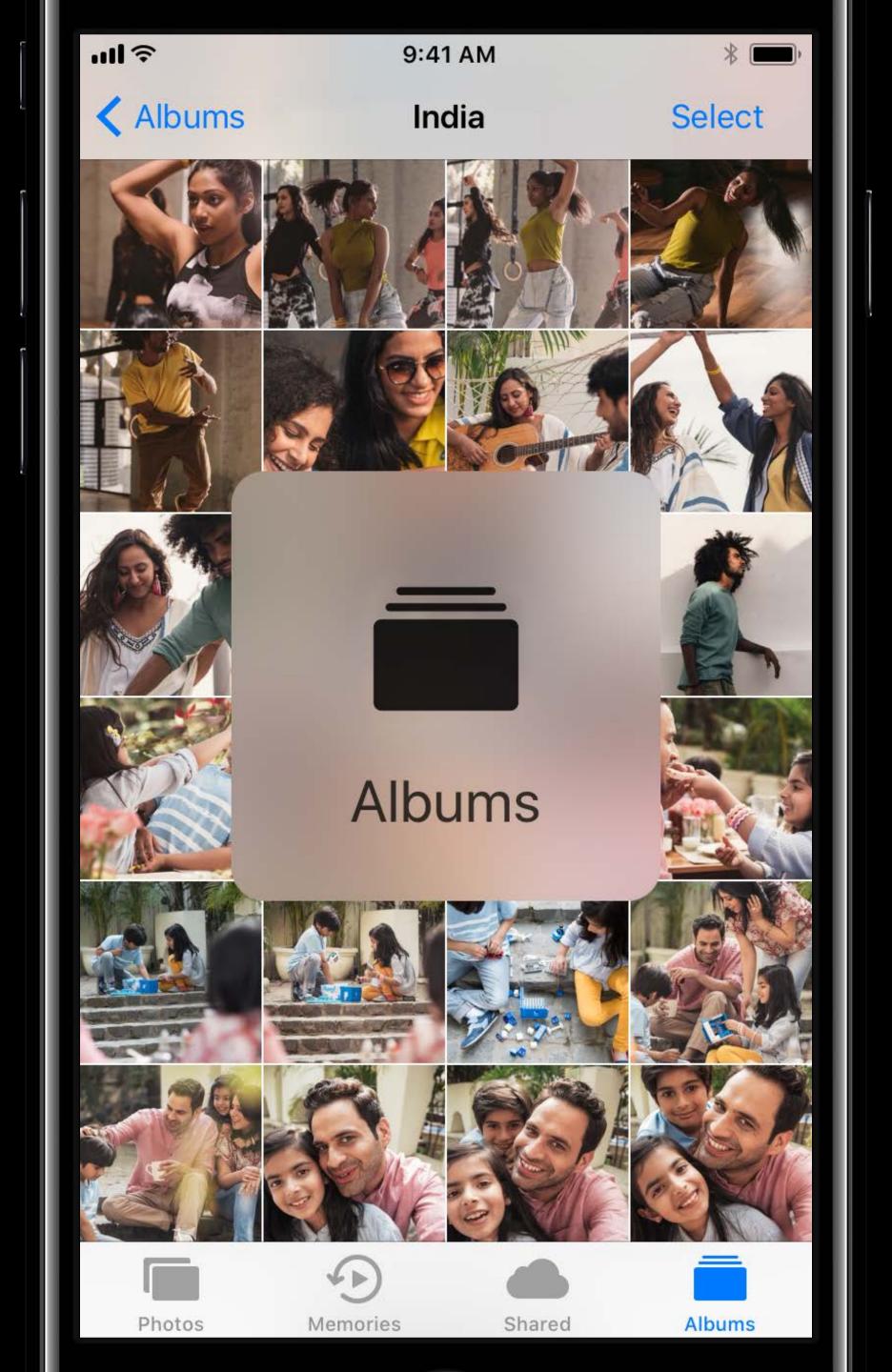


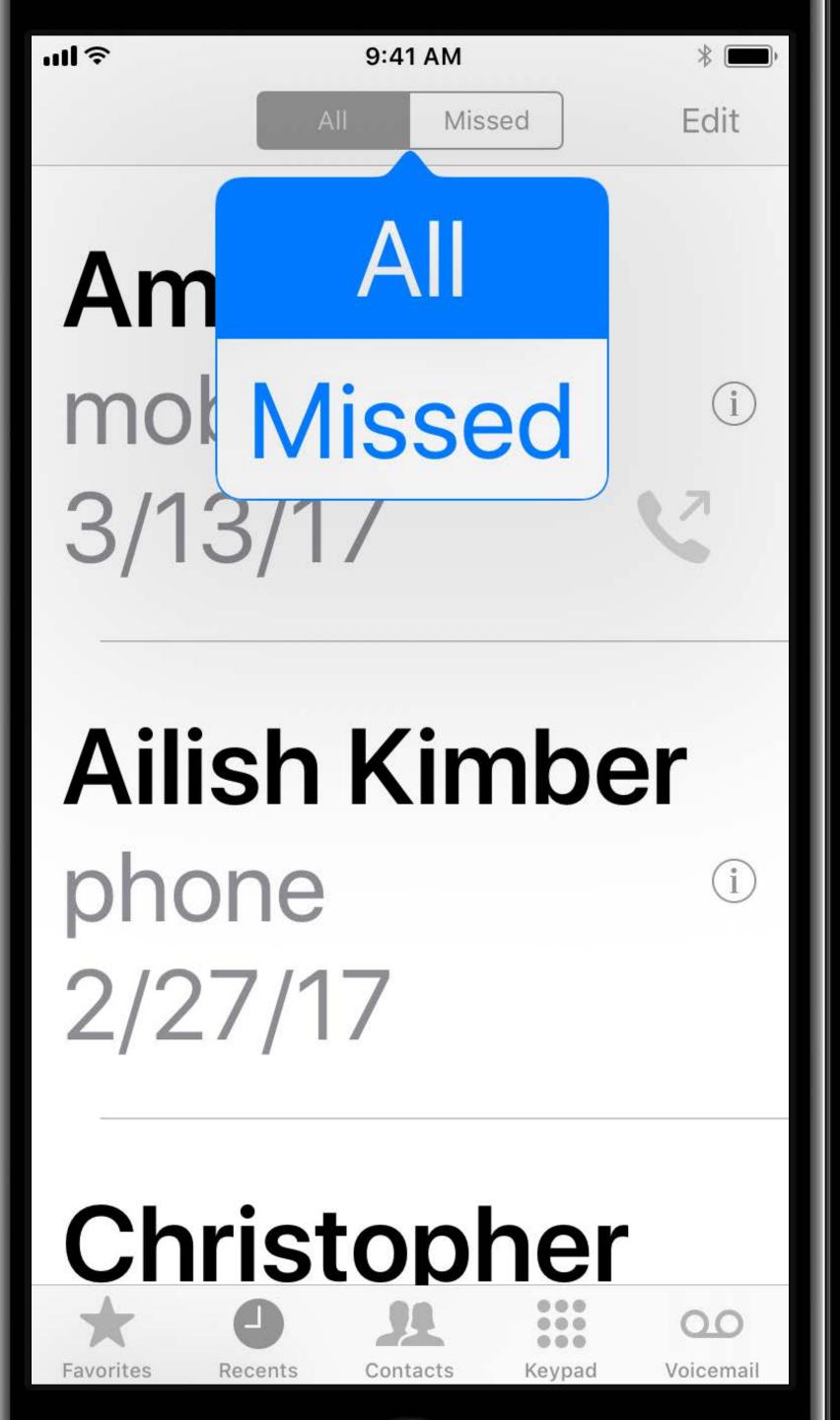




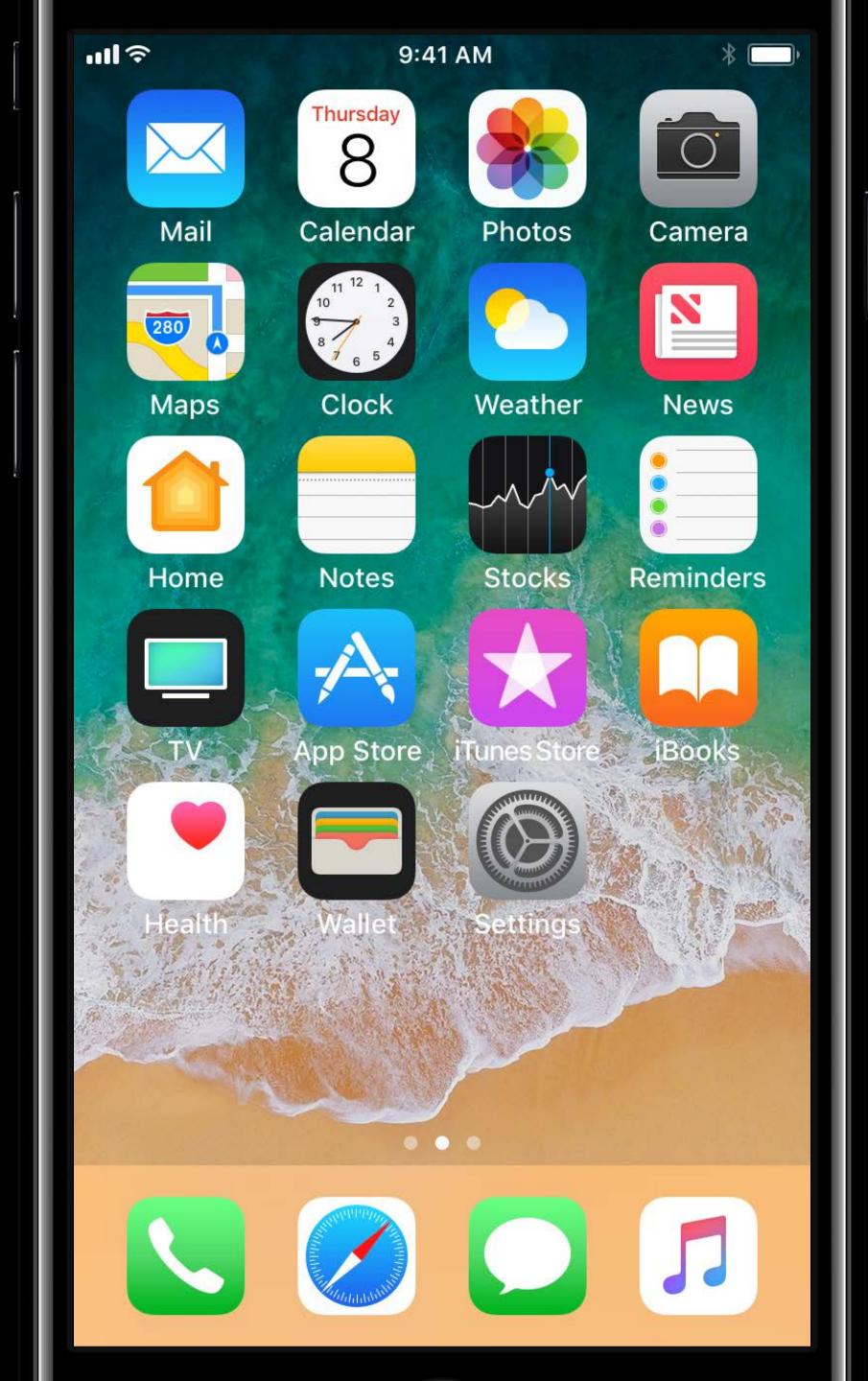
Edit menu

**Autocorrection bar** 









9:41 Thu, Jun 8

\* CALENDAR in 4m

ull 🕏

Presentation Prep

Today at 9:45 AM

# Captions



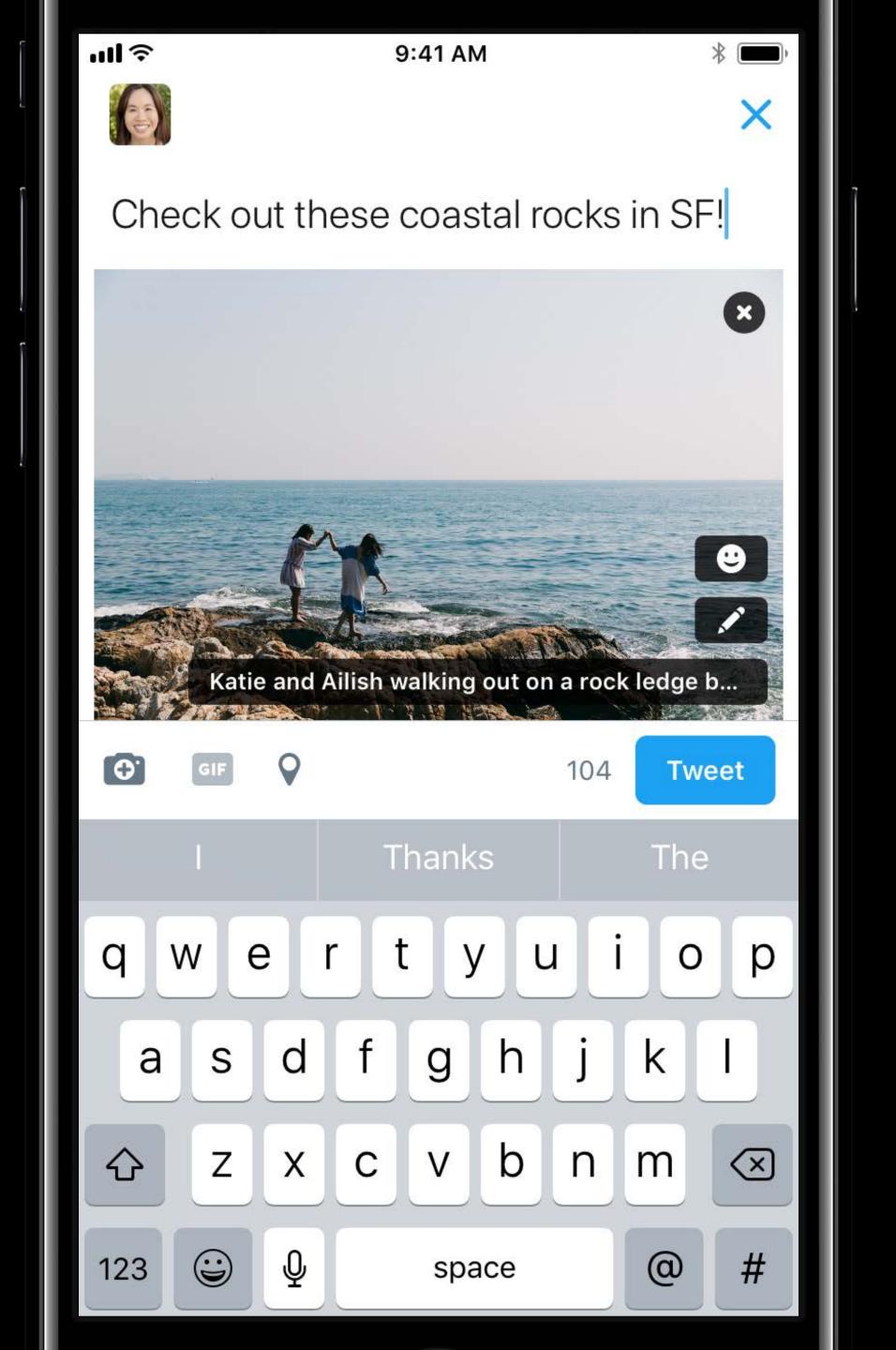
# Audible and speech input

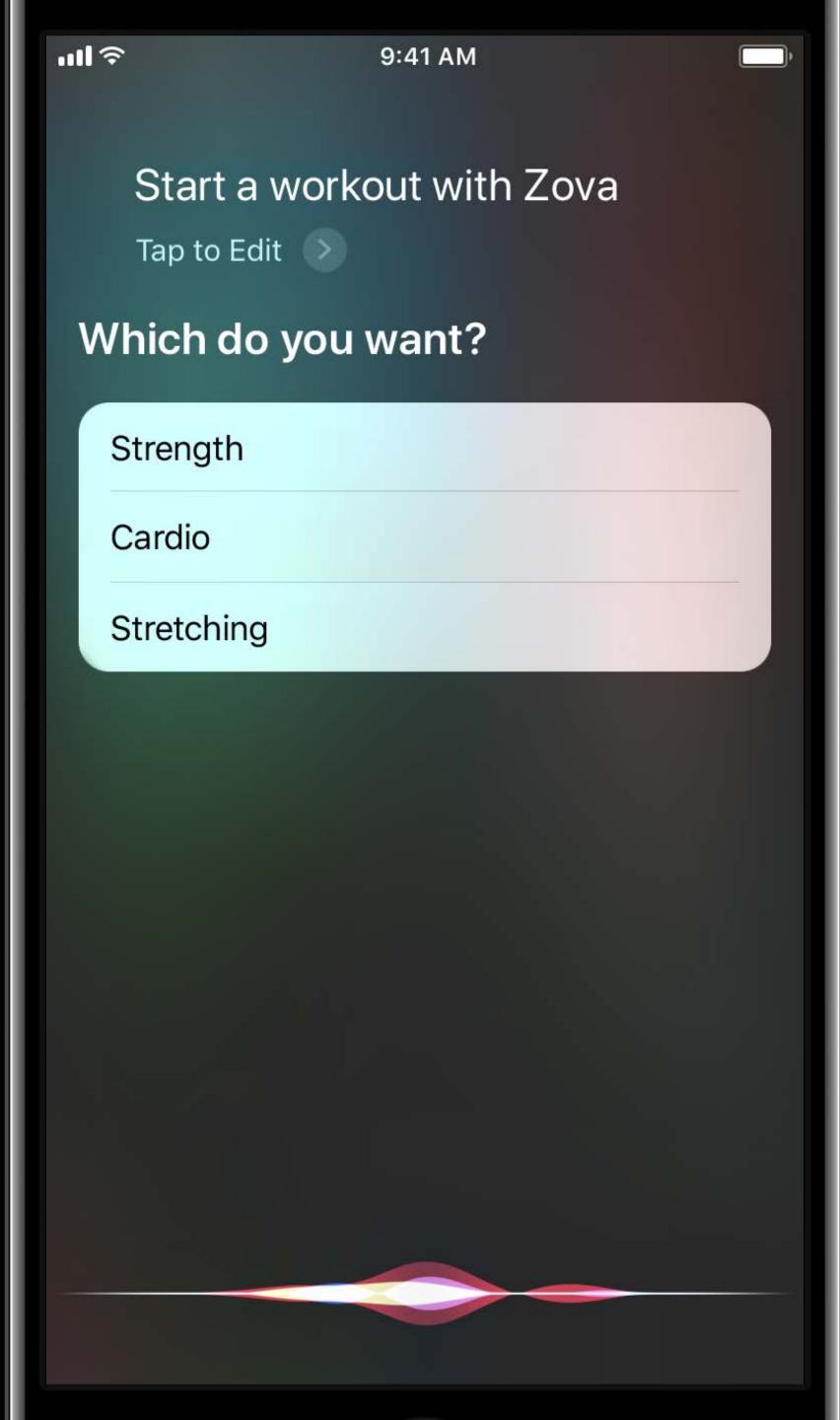












Remind me to pick up my prescription when I get in the car

Tap to Edit

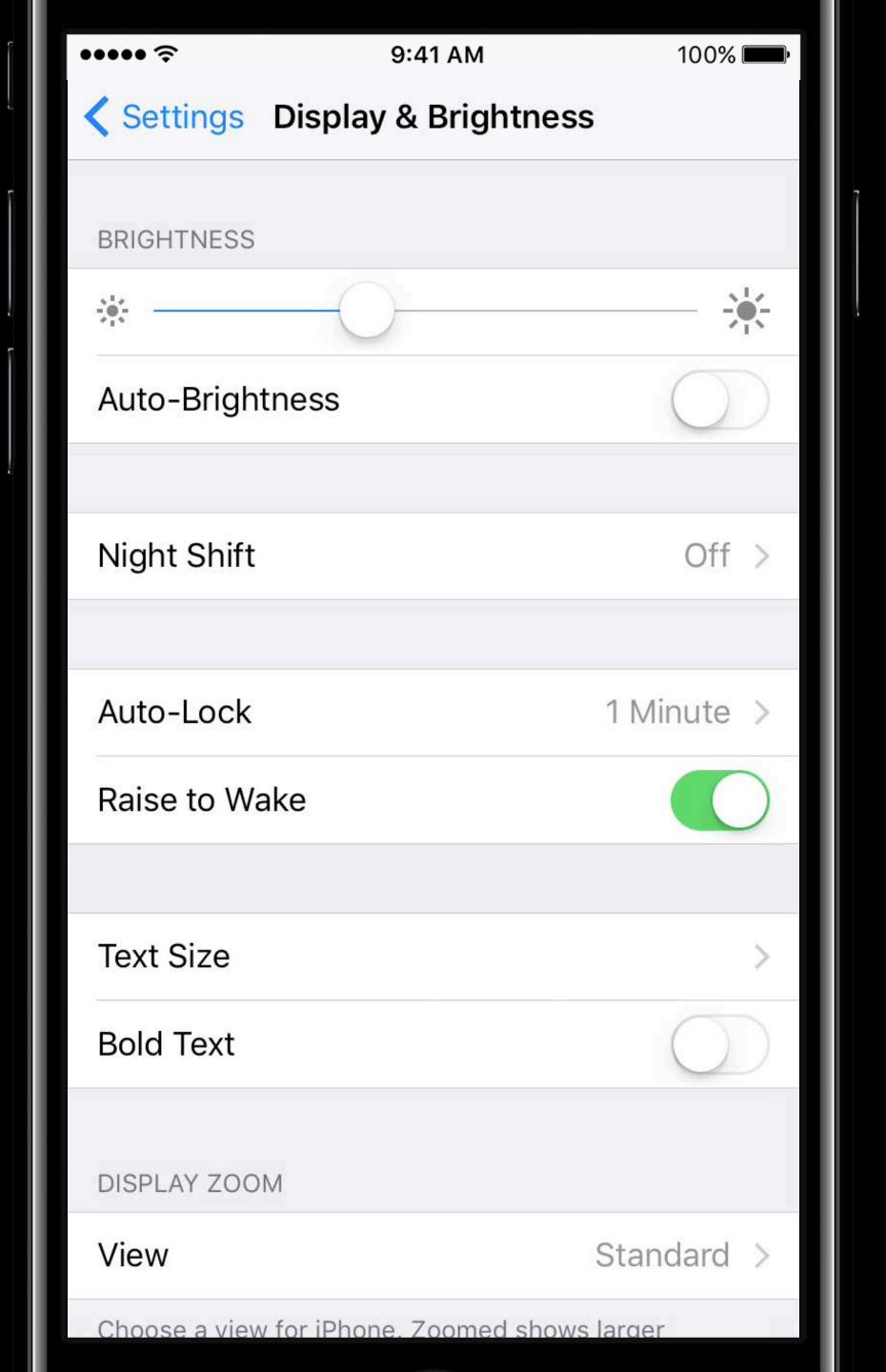
Here's your reminder for the next time you get in the car and connect to your iPhone:

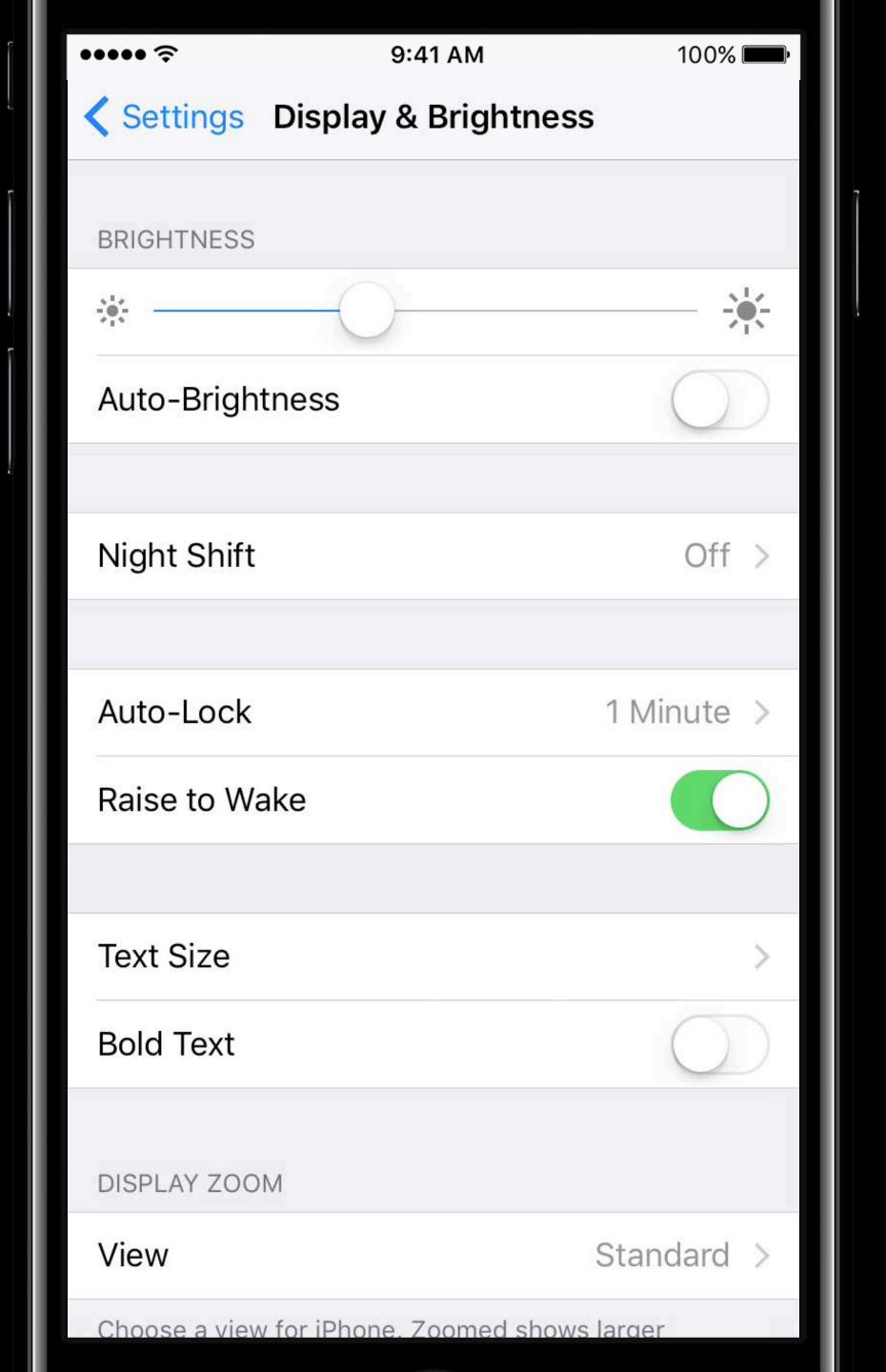


Pick up my prescription Getting in the car

Remove

# Haptic feedback







9:41 AM





Edit

### Inbox

- Q Search
- John Baily

9/21/15 >

Yosemite Trip

Hey John, We're getting excited for our trip to Yosemite this summer. The kids are going to h...

Katie Abeles

9/21/15 >

Trip to San Francisco

John, Visiting you in San Francisco was so much fun. We definitely need to head back soon. He...

Allen Buchinski

9/20/15 >

Pick up from airport?

Hi John! Hope all is well with you. I am coming home from London and was wondering if you...

#### Jane Daniels

9/20/15 >

Dinner

Hi Everyone, I'm so excited to see everyone at dinner tonight. Parking can be tough around th...

Mary Ellen Mason

9/19/15

Troy's Birthday

How Everyone Thanks for joining us for Troy's



**Updated Just Now** 





9:41 AM





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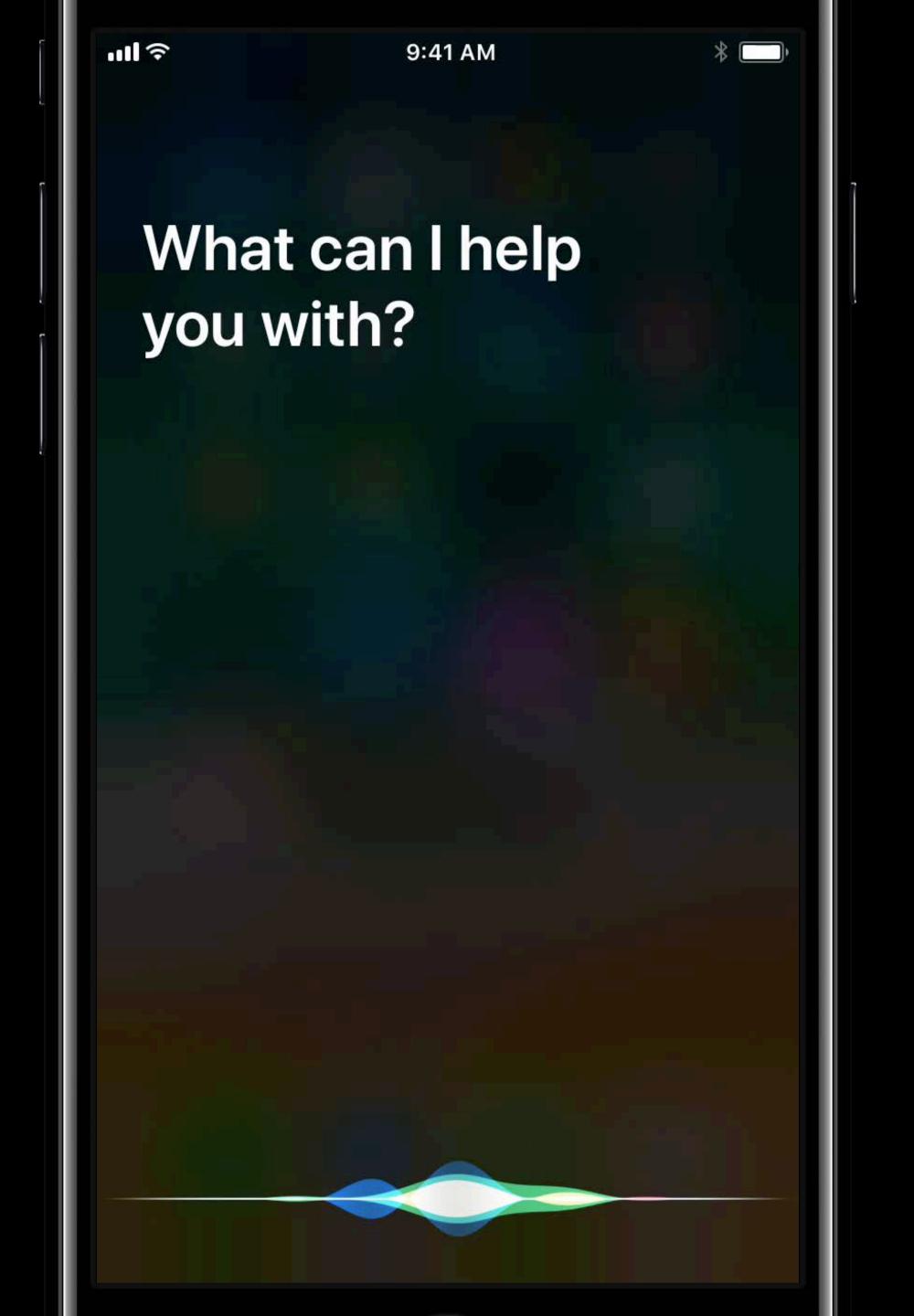
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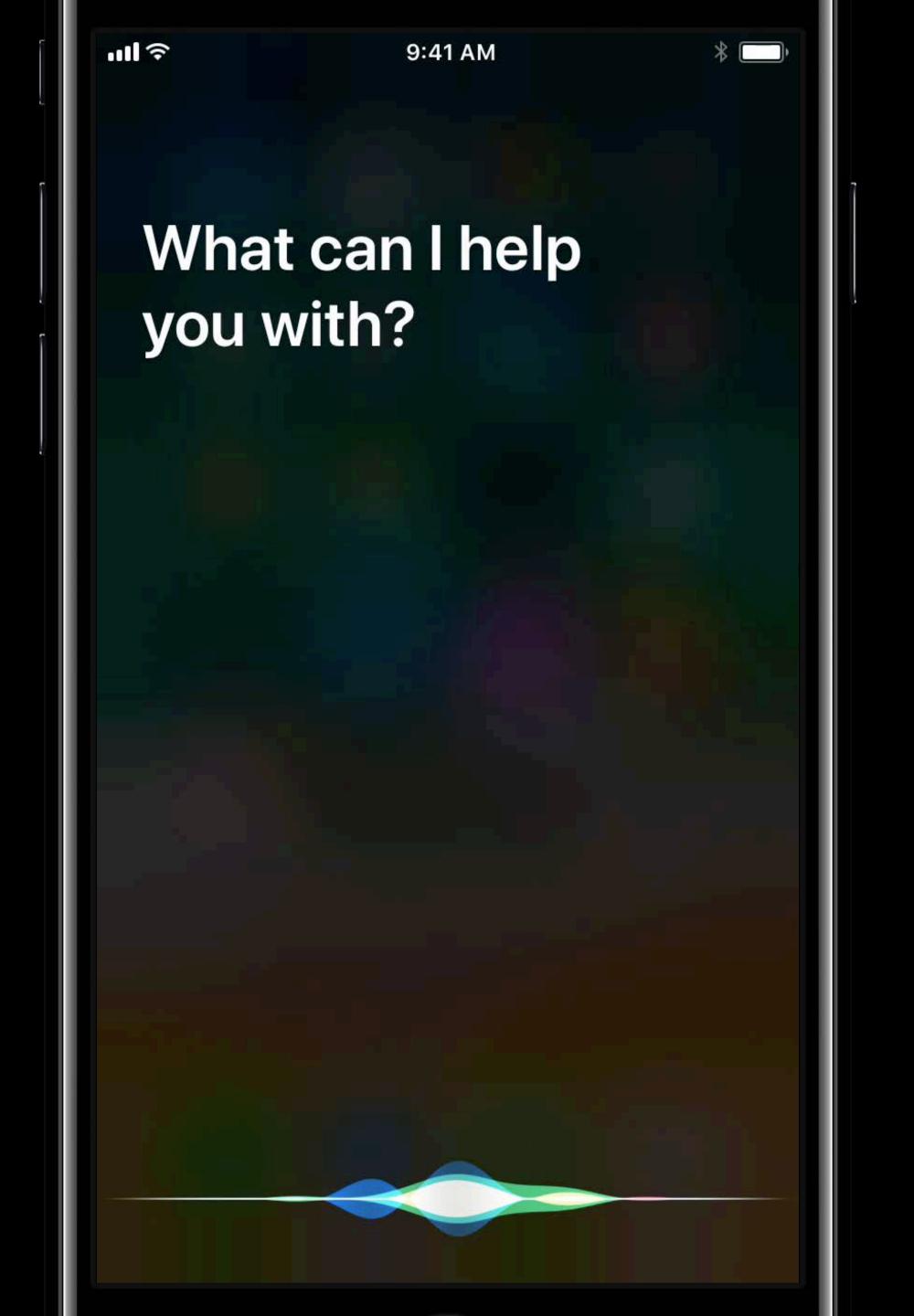
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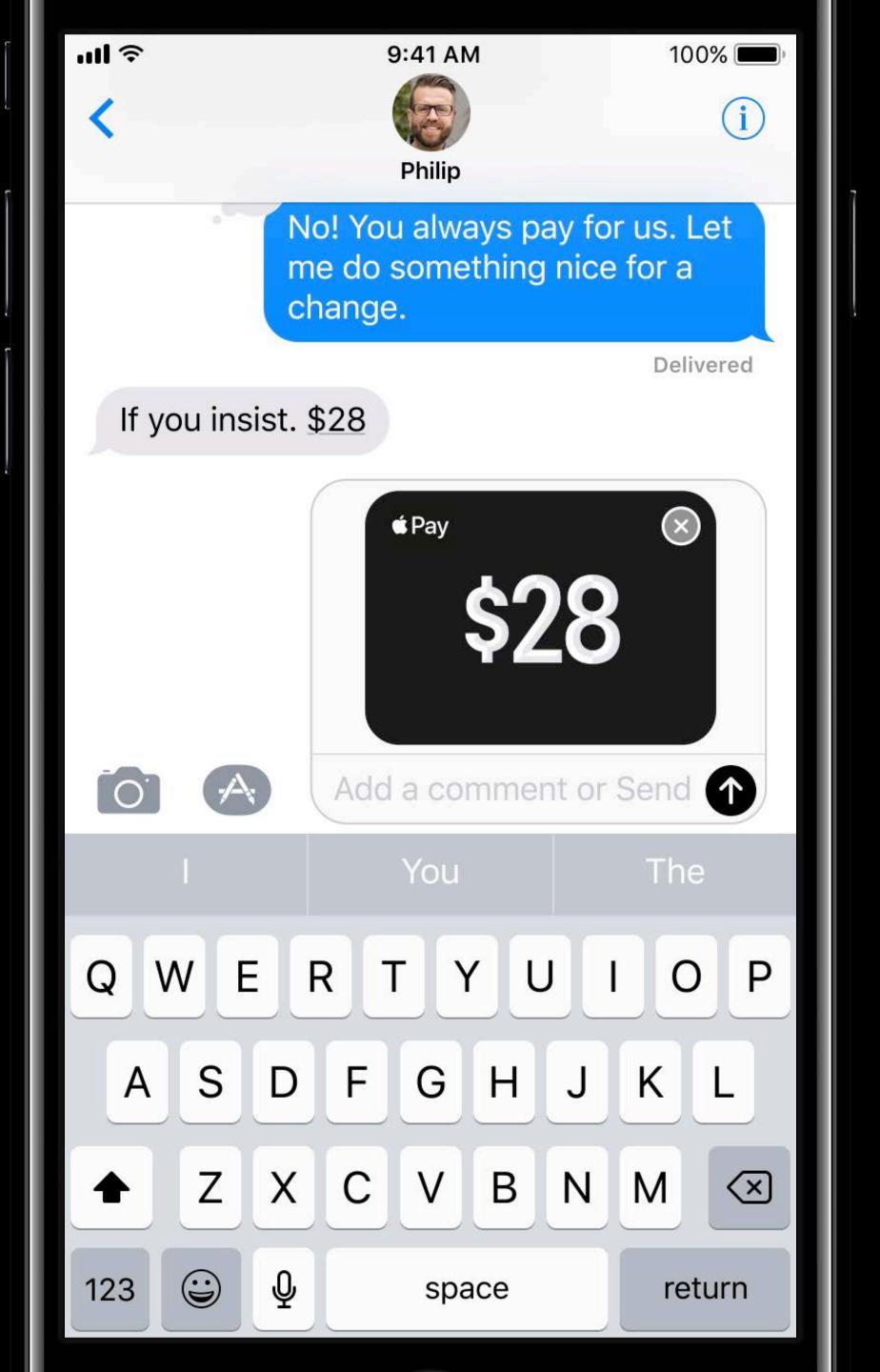
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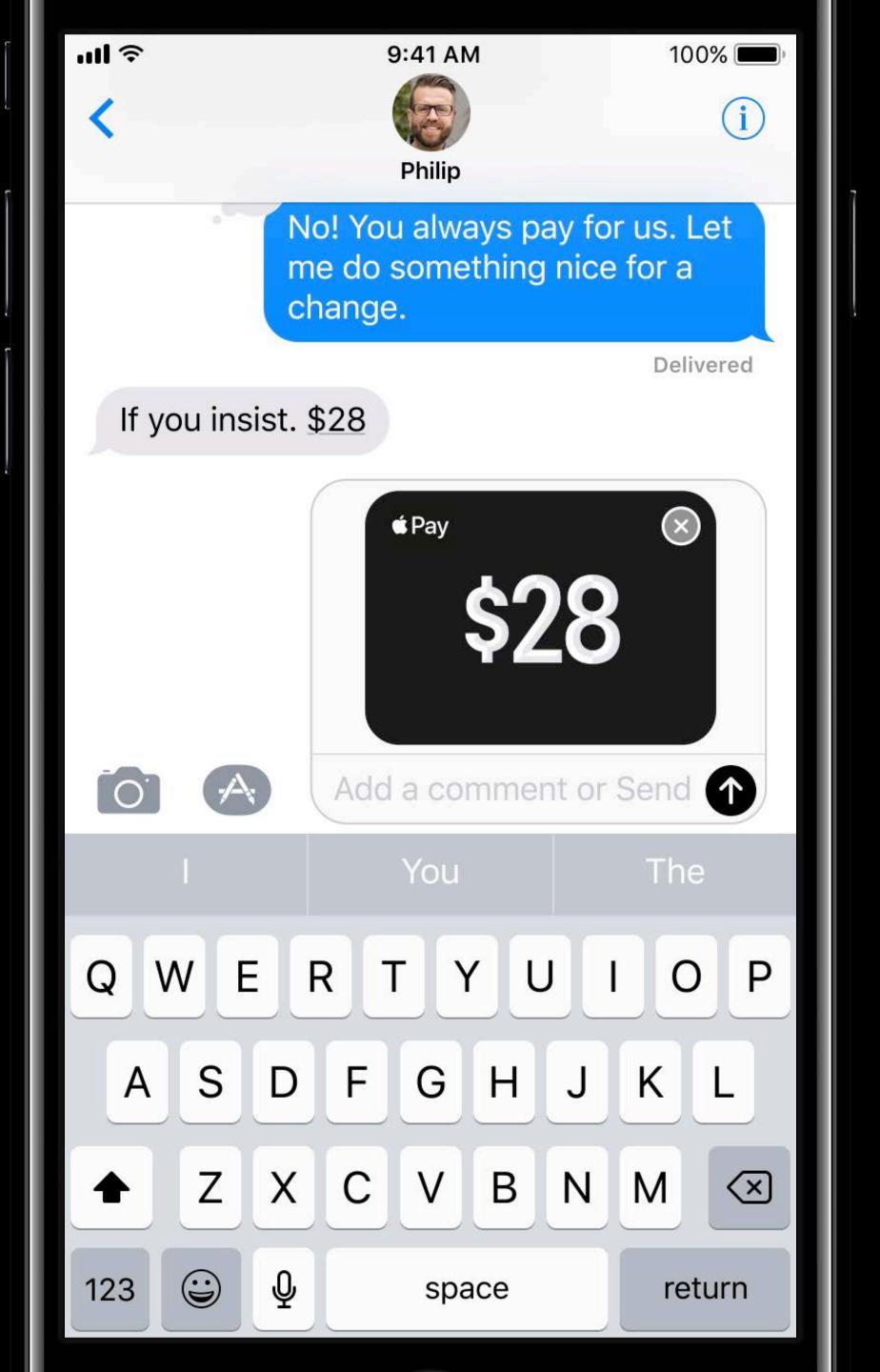
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## Simplicity

Easy to navigate

Quick to get started

Consistent behavior

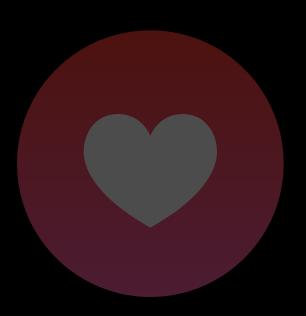


## Perceivability

Maximize legibility

Audible cues

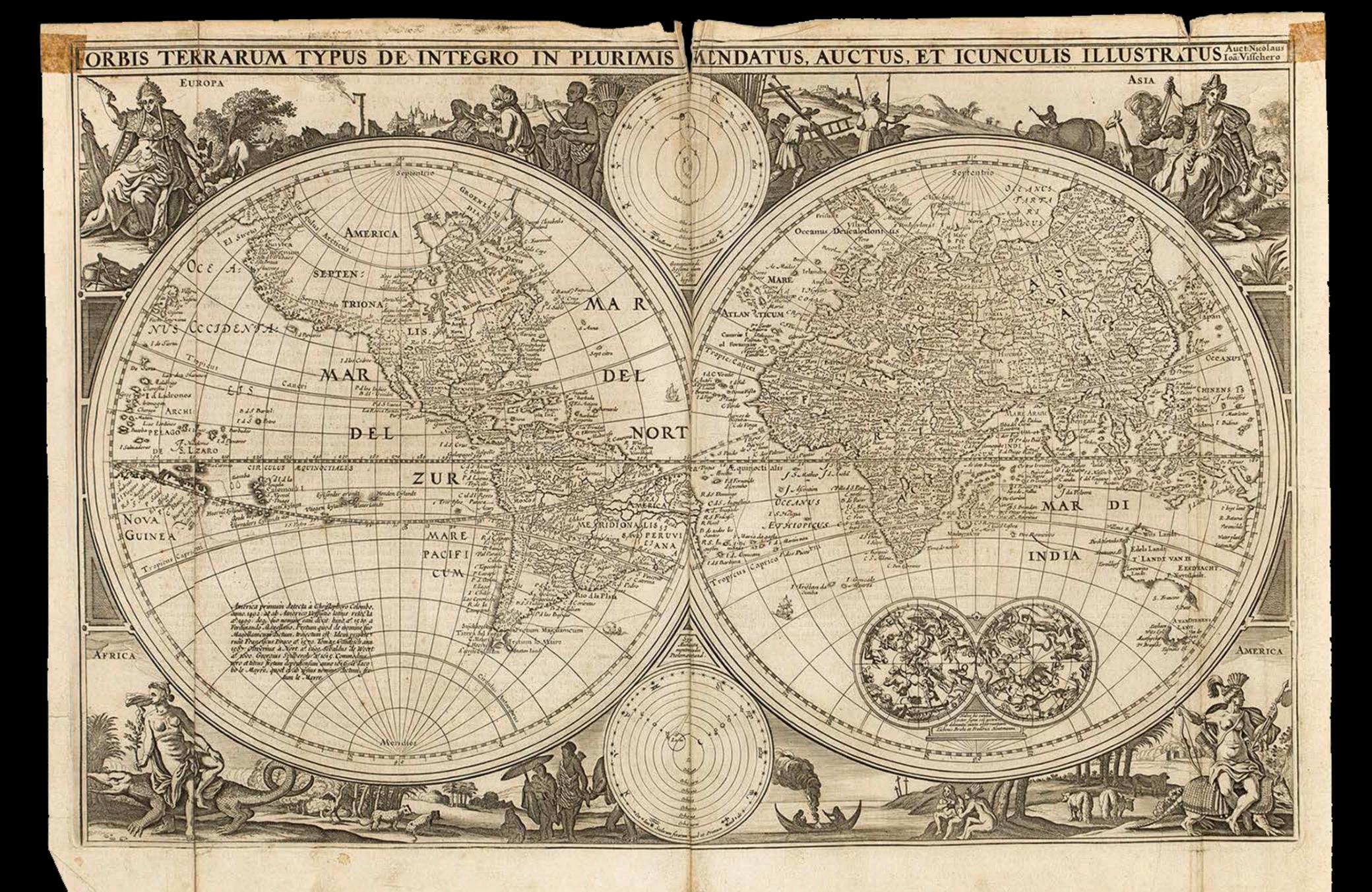
Haptic feedback

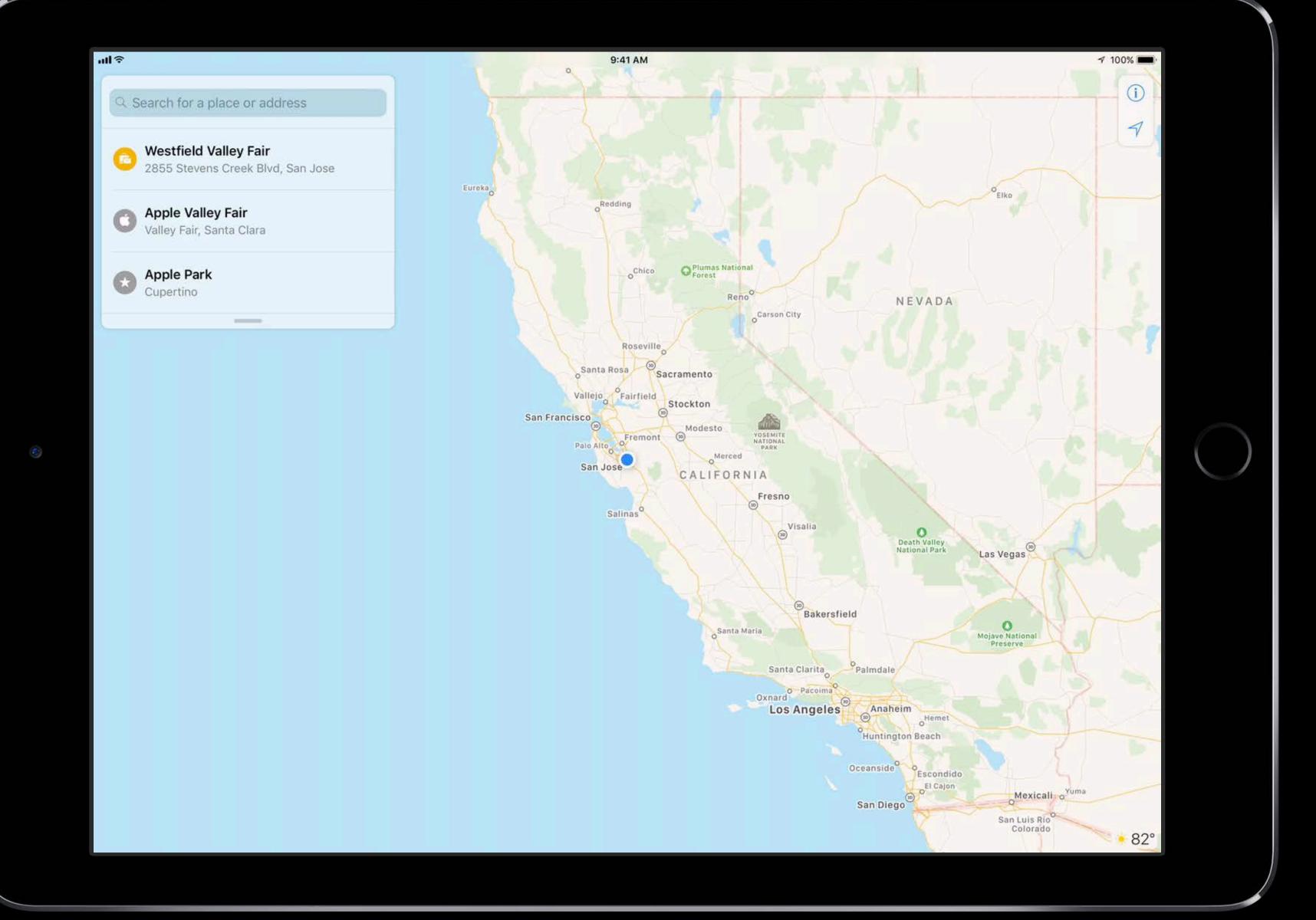


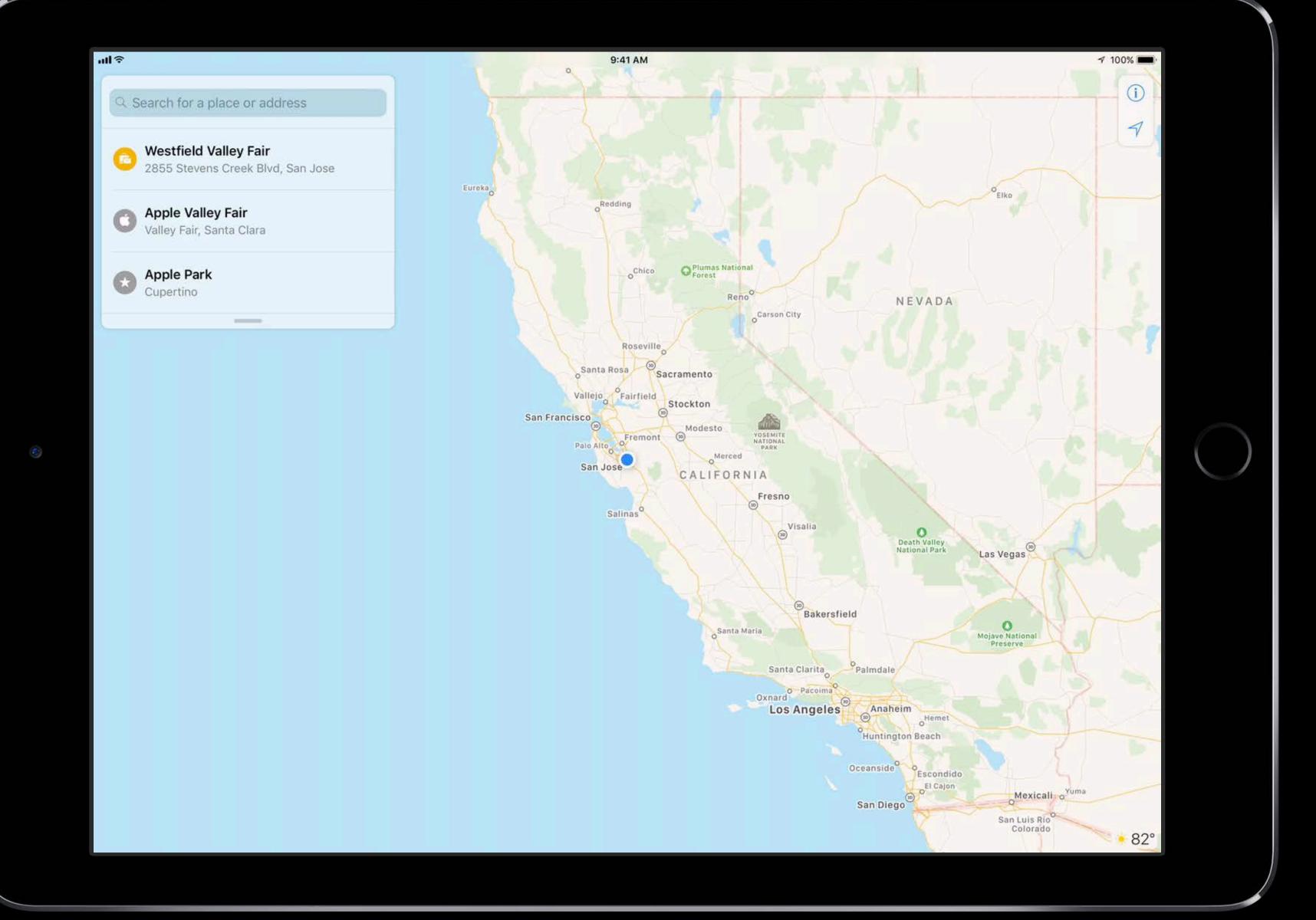
Integrity

## Alexander James O'Connell

Designer, Maps



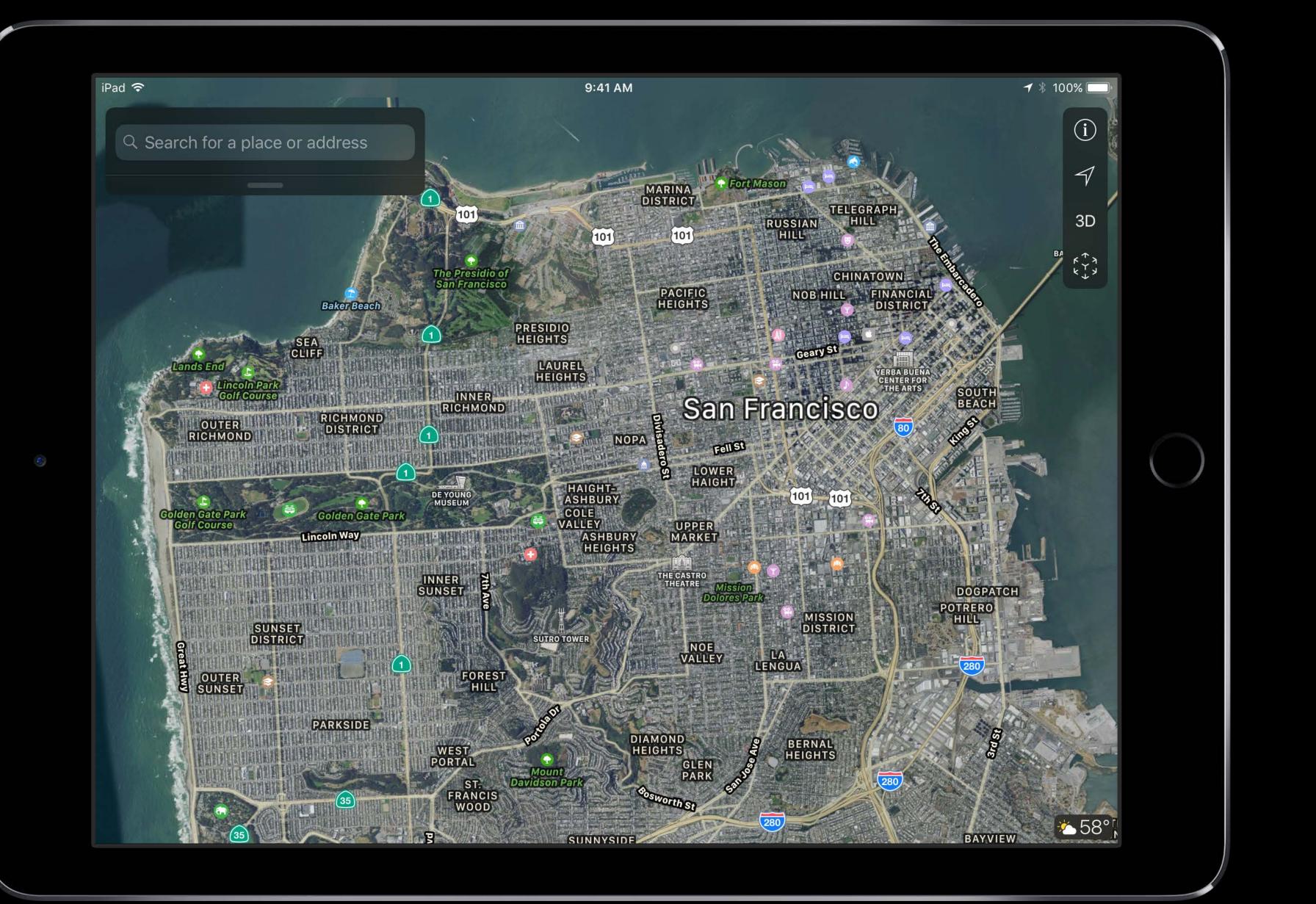


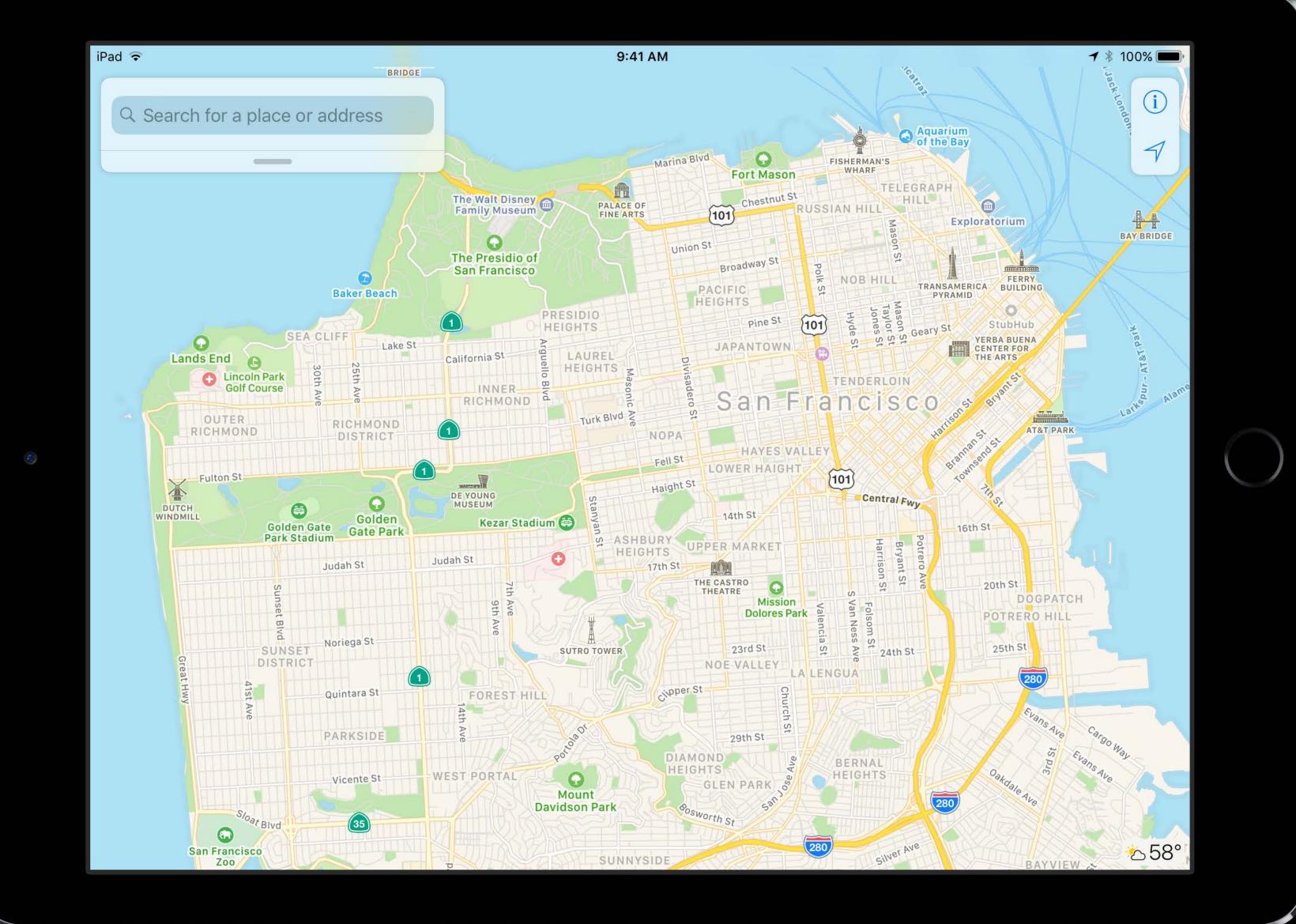


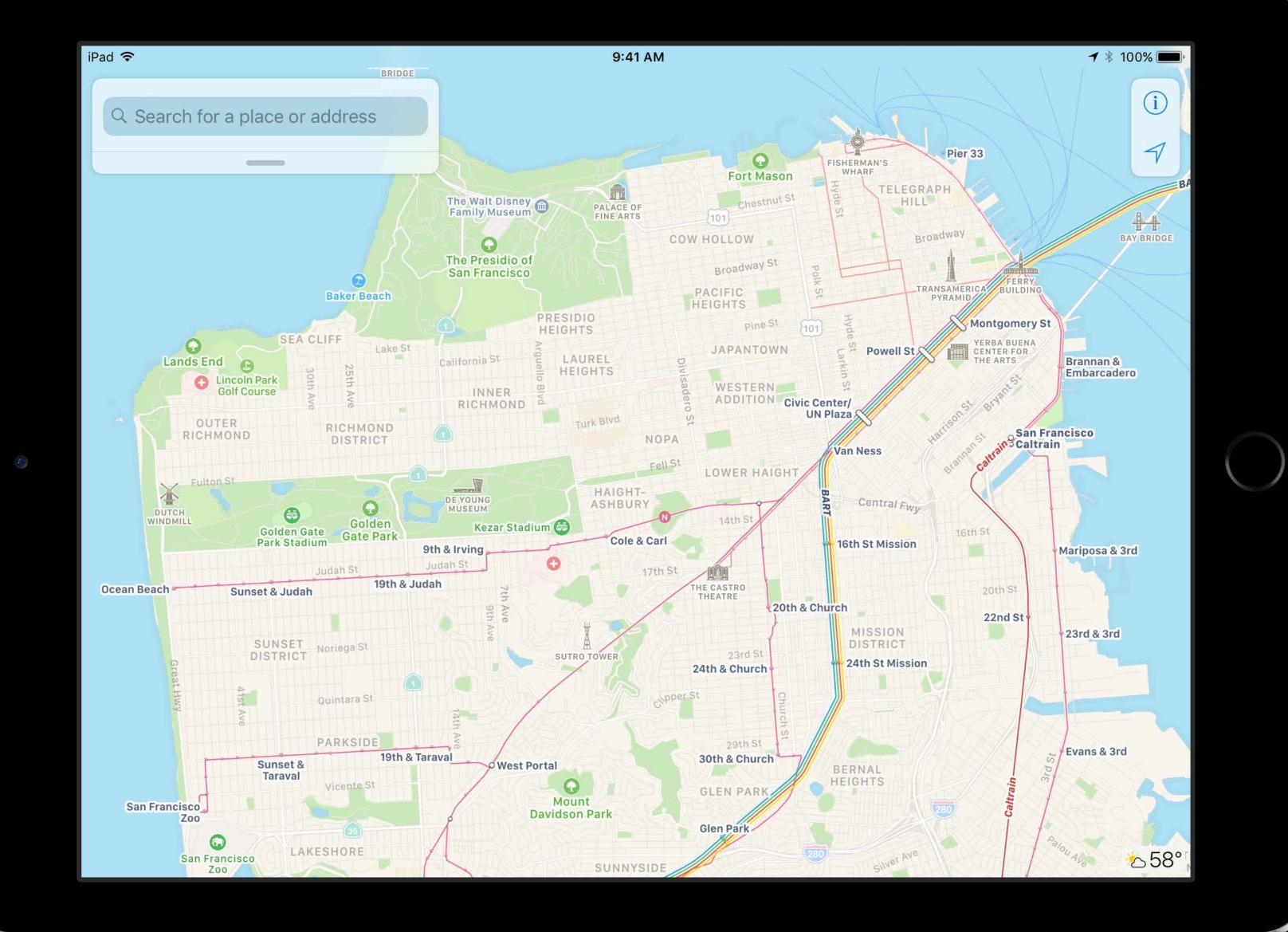


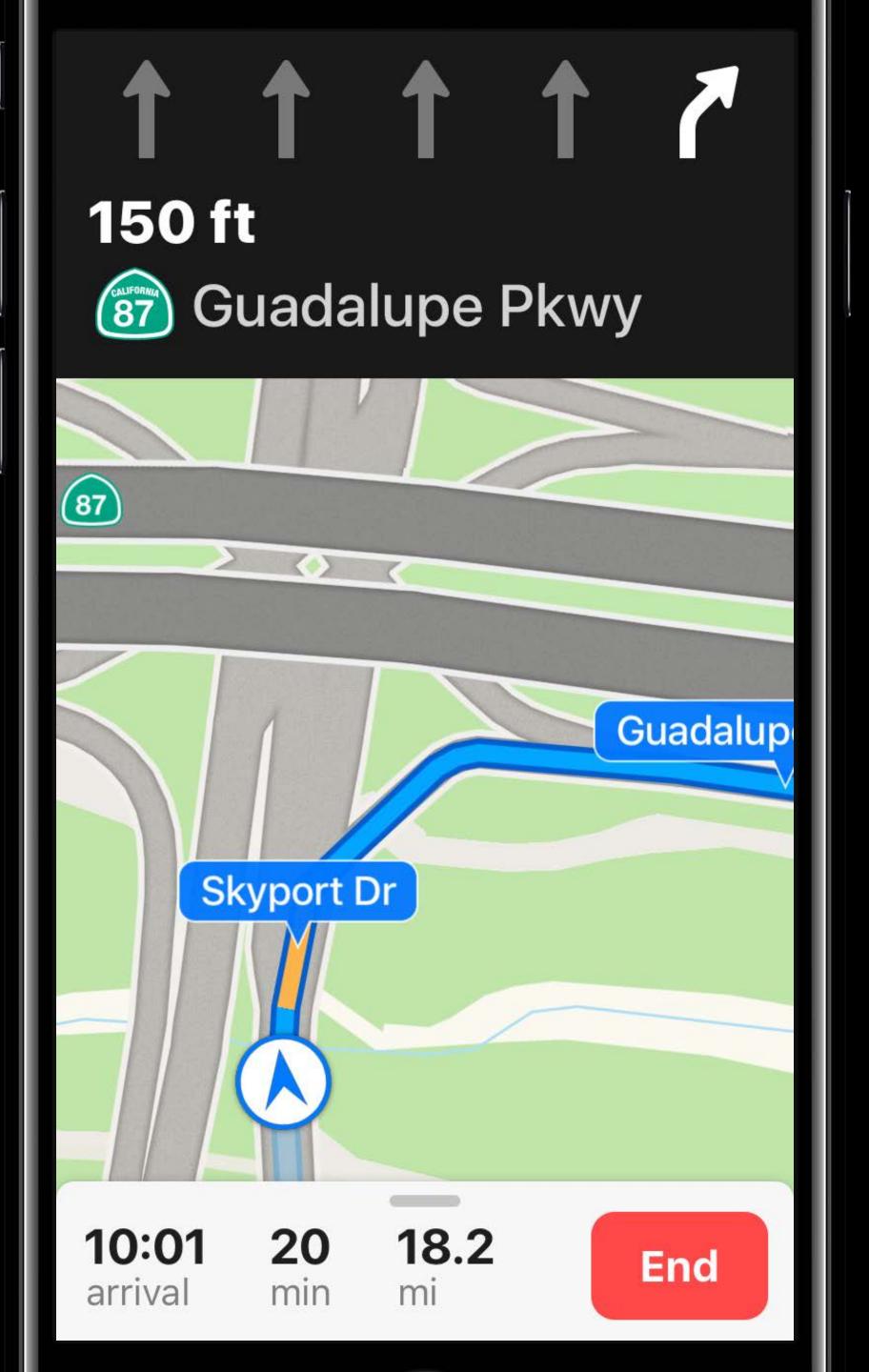
## Does it work for me?

# Does it work for everyone?







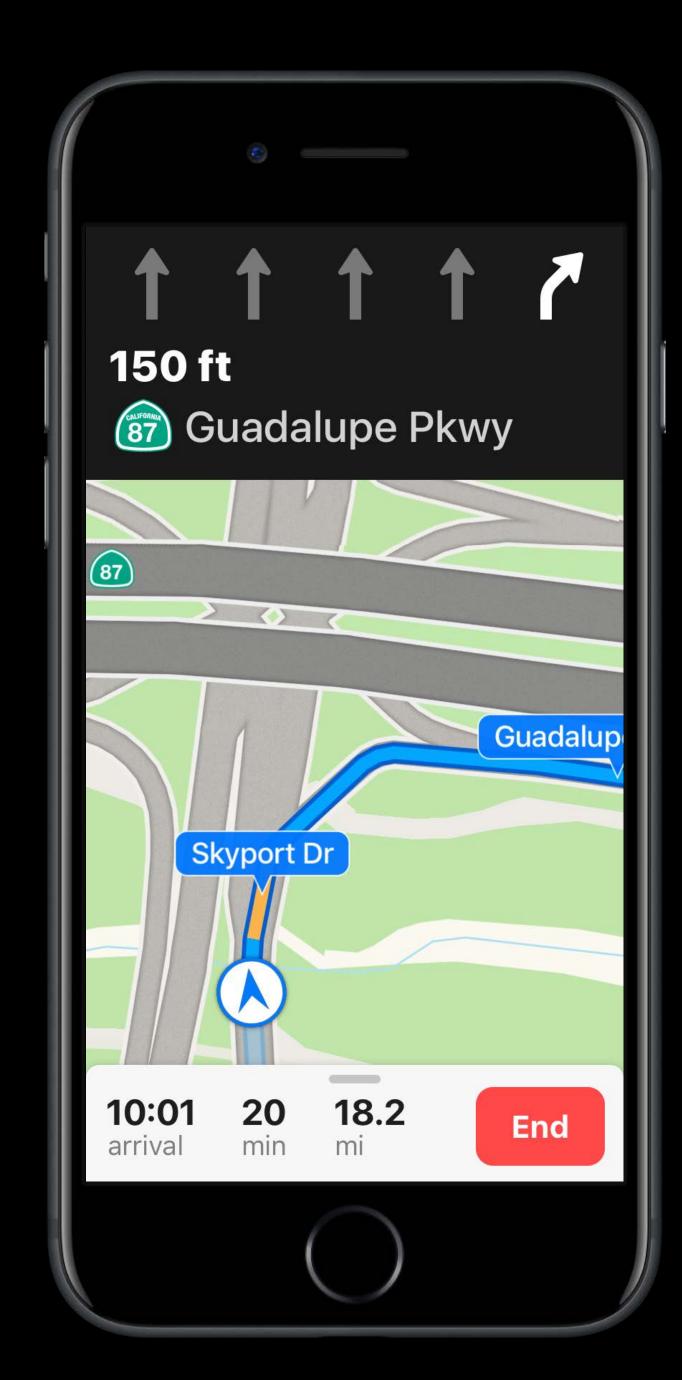


















### Simplicity

Easy to navigate

Quick to get started

Consistent behavior



## Perceivability

Maximize legibility

Audible cues

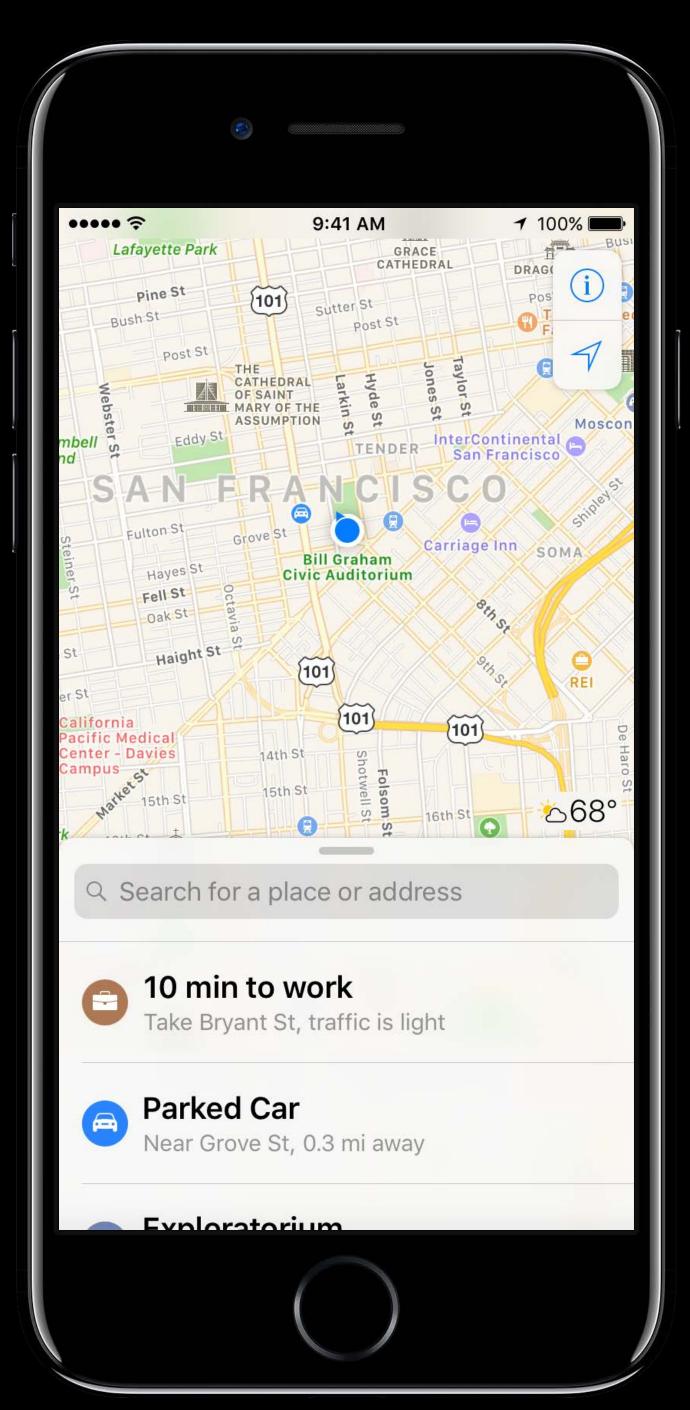
Haptic feedback

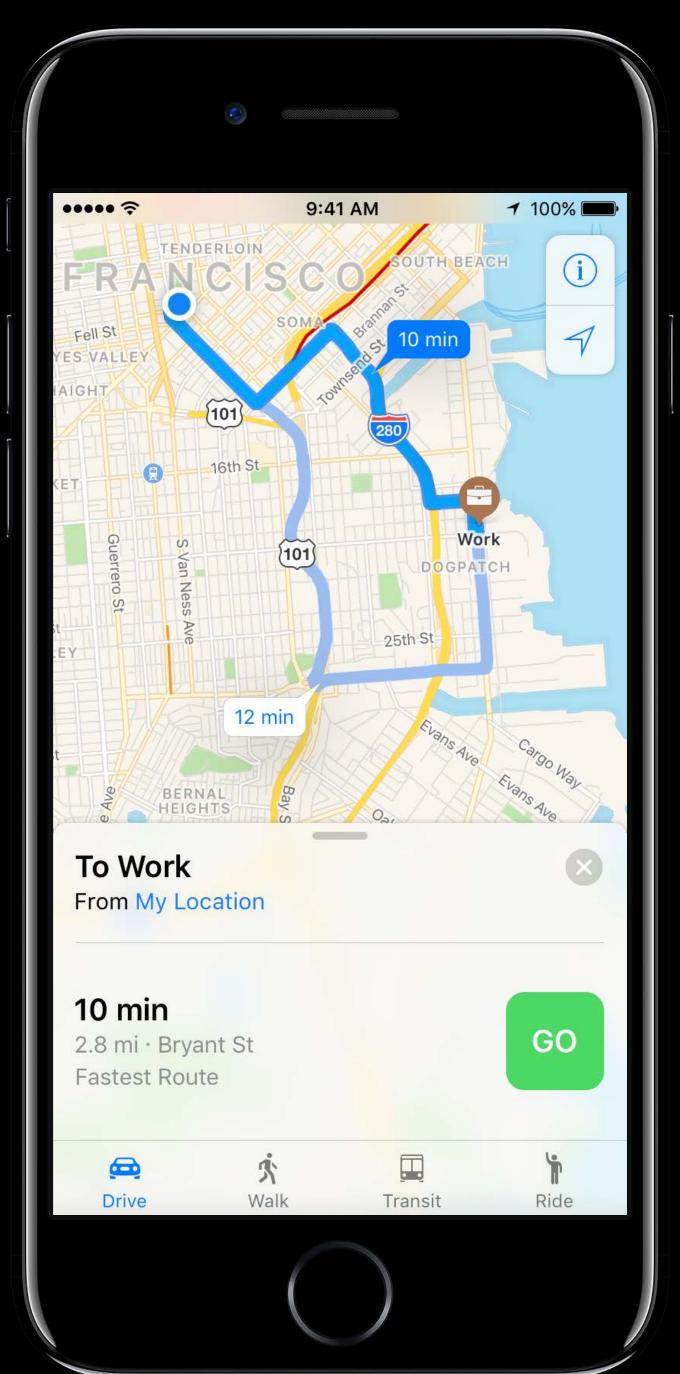


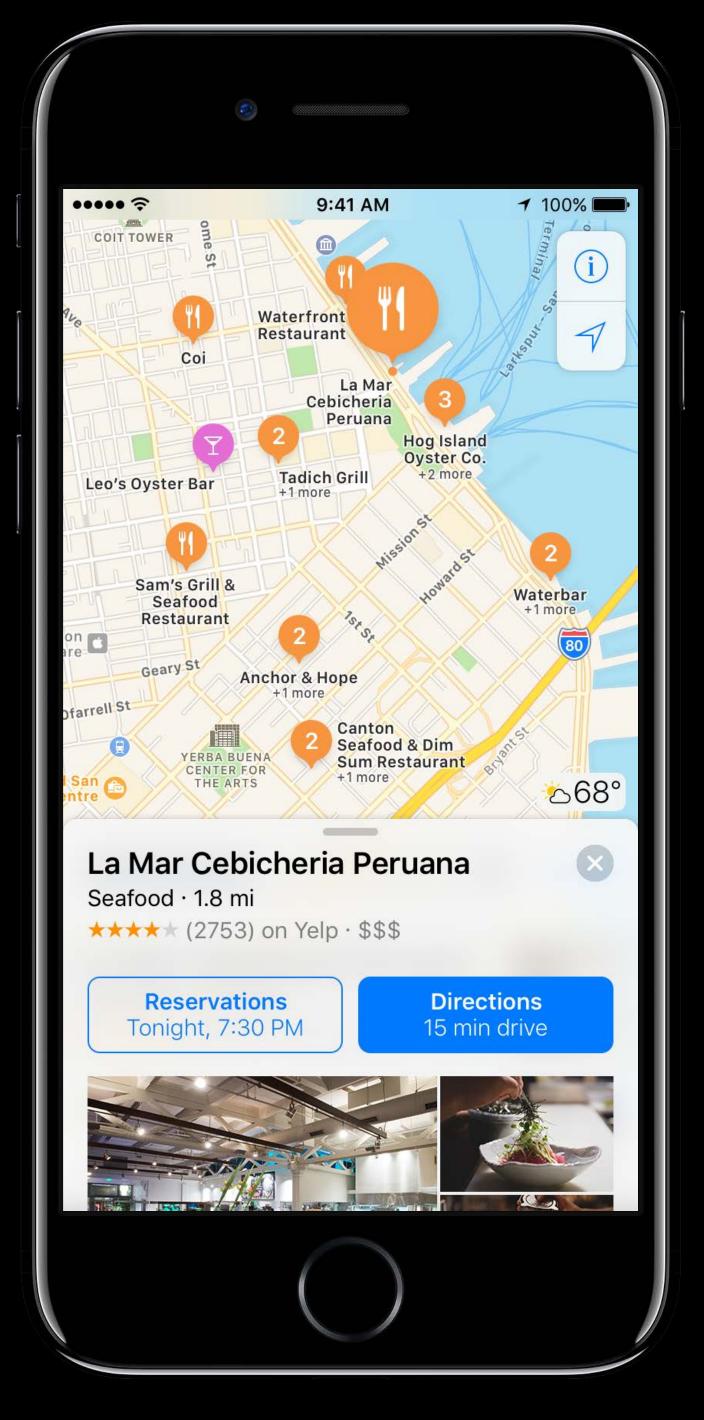
Integrity

# Take responsibility

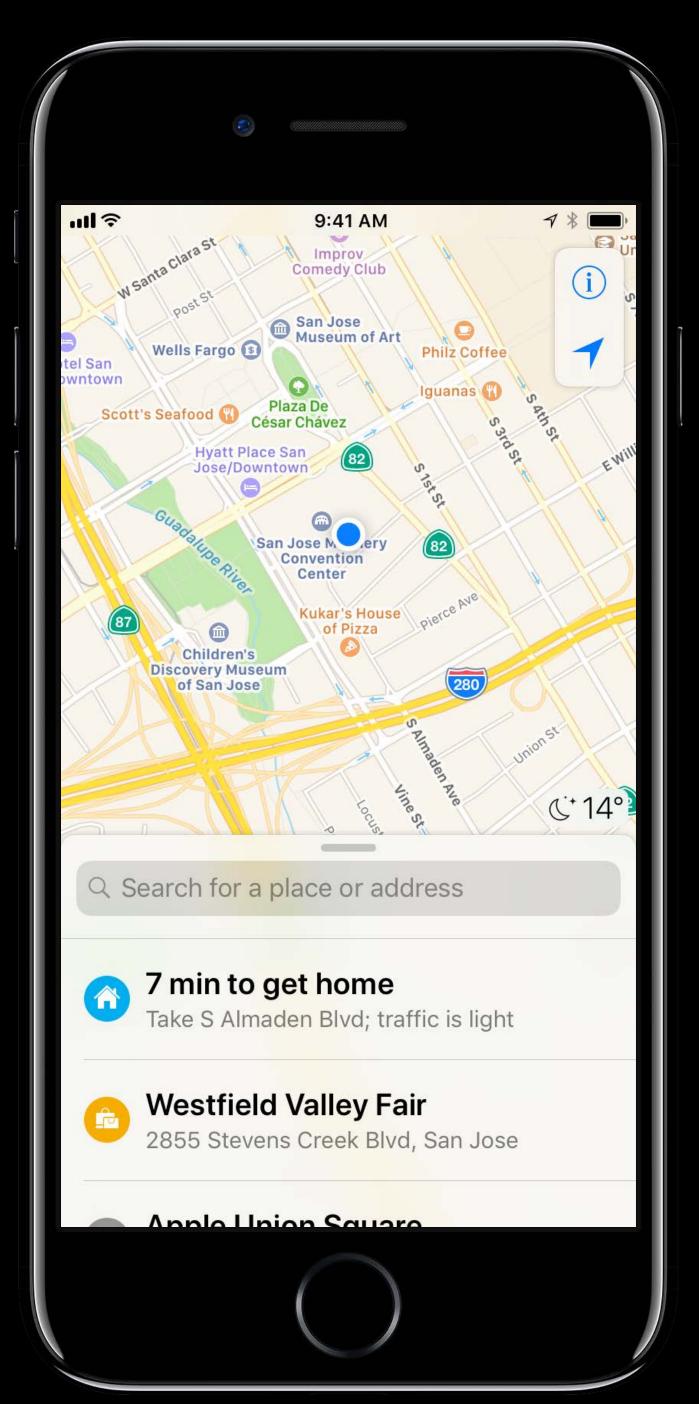
# iOS 10

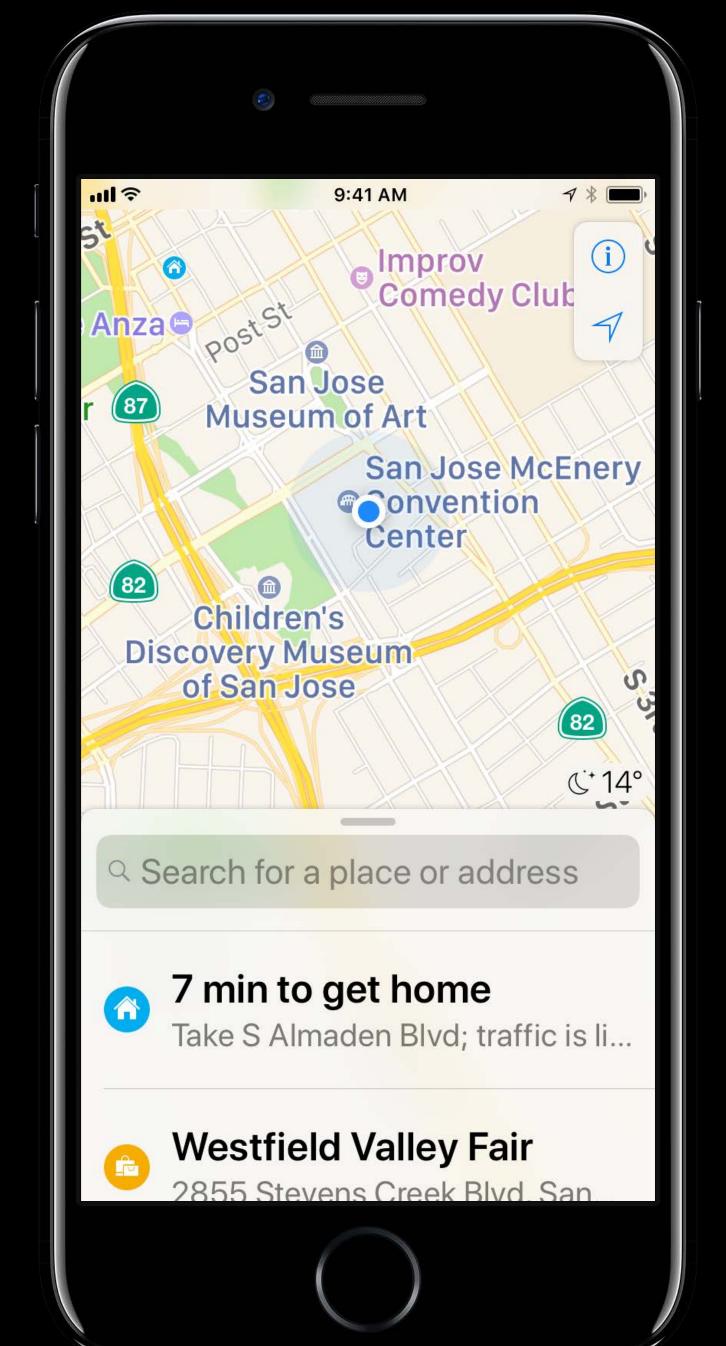


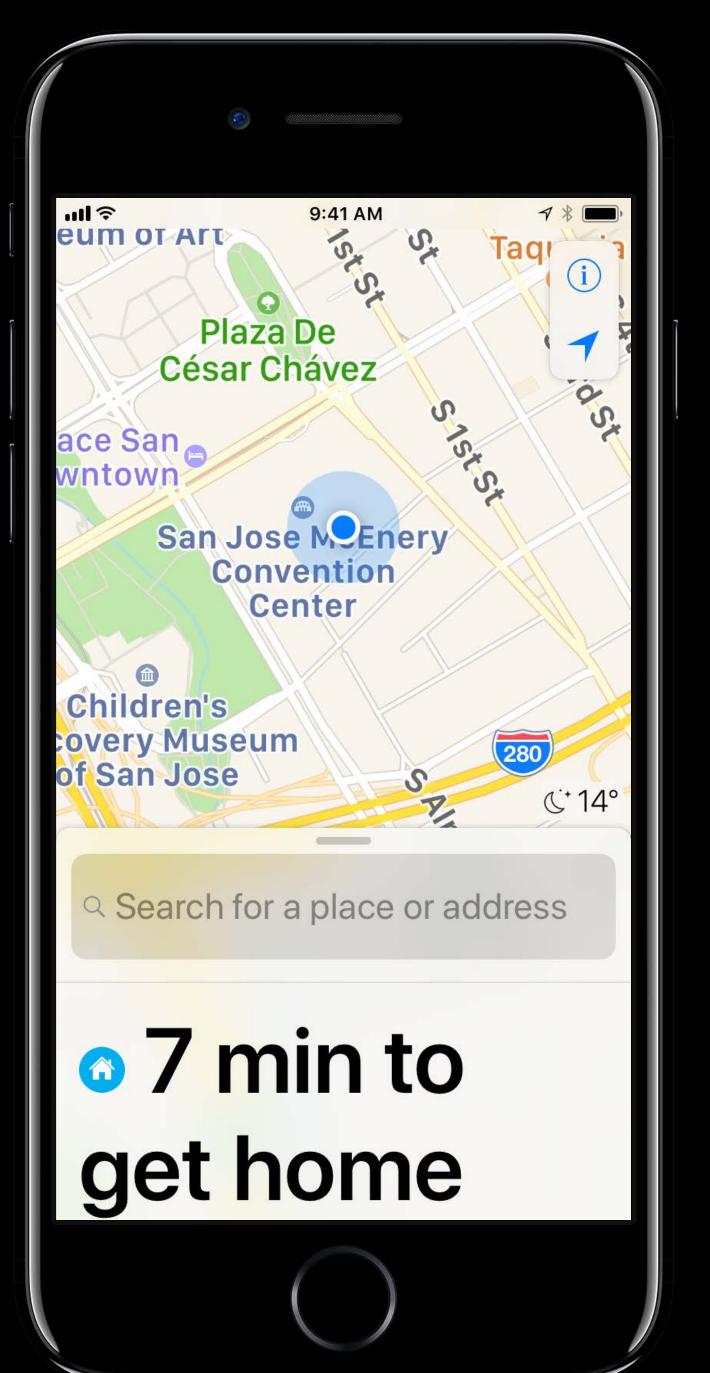


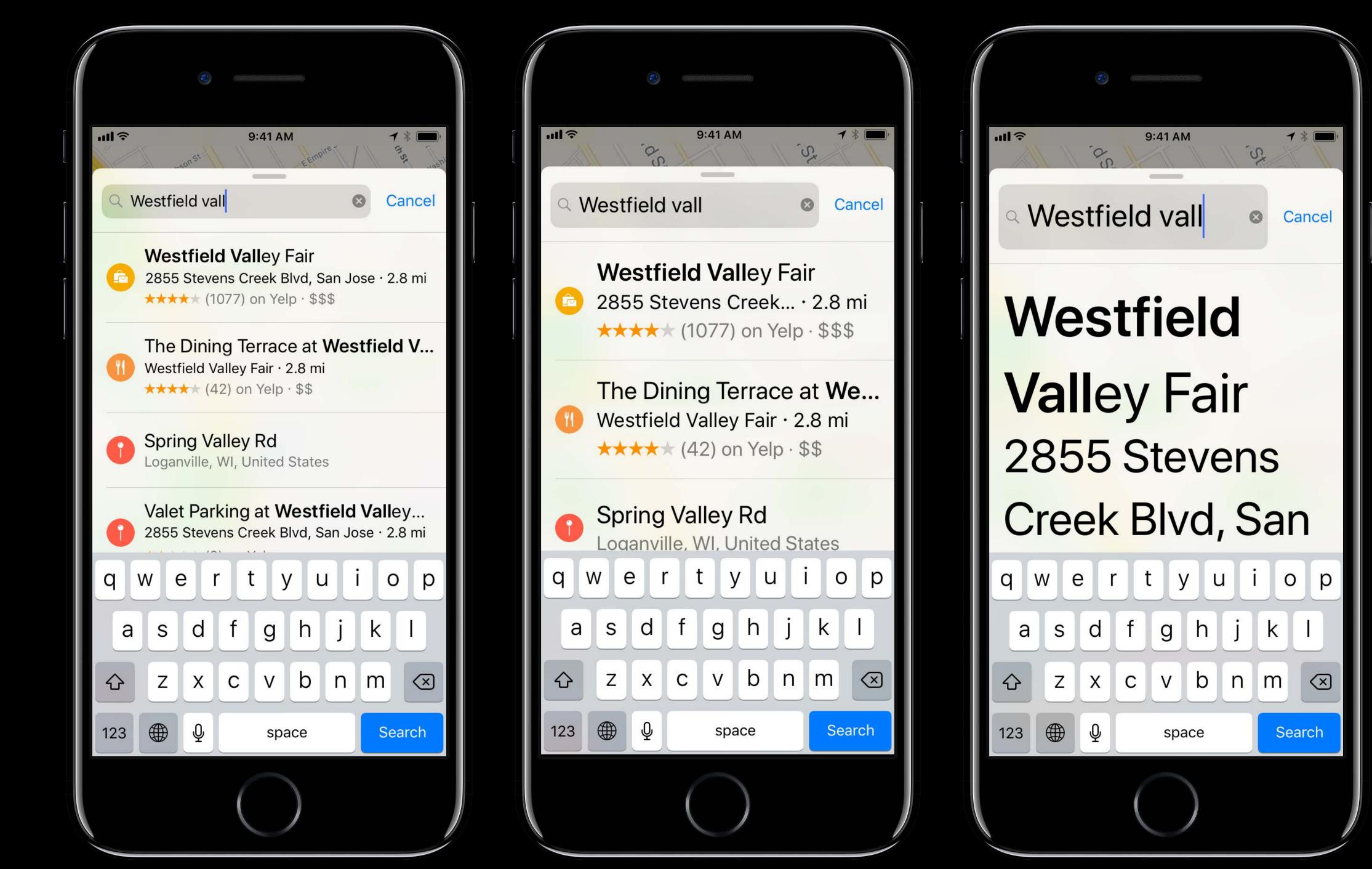


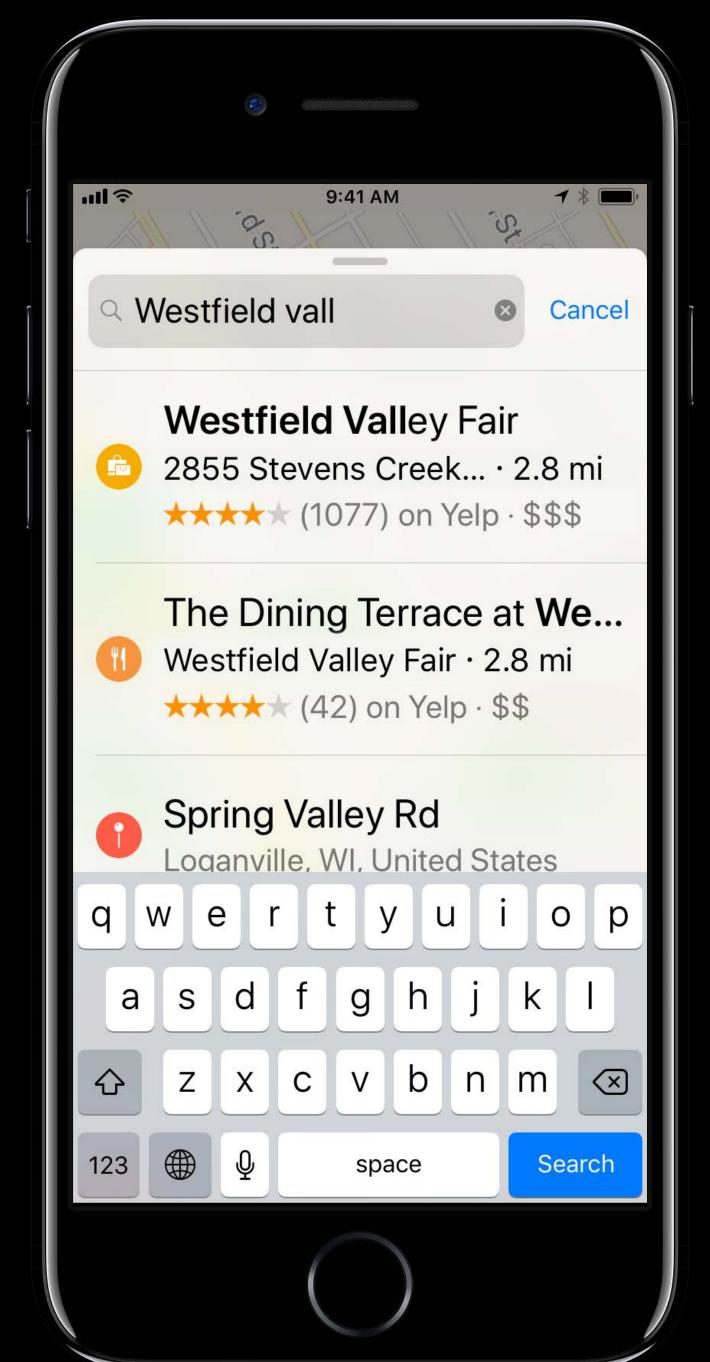
# iOS 11

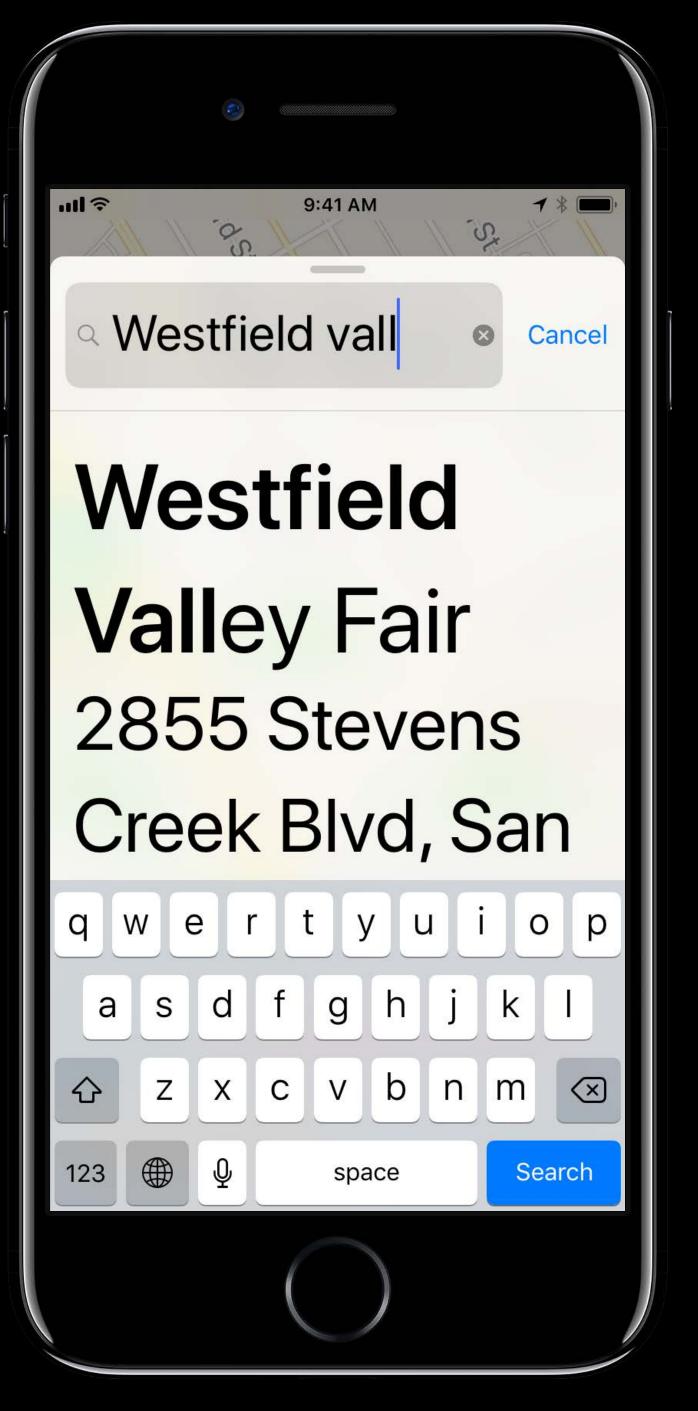


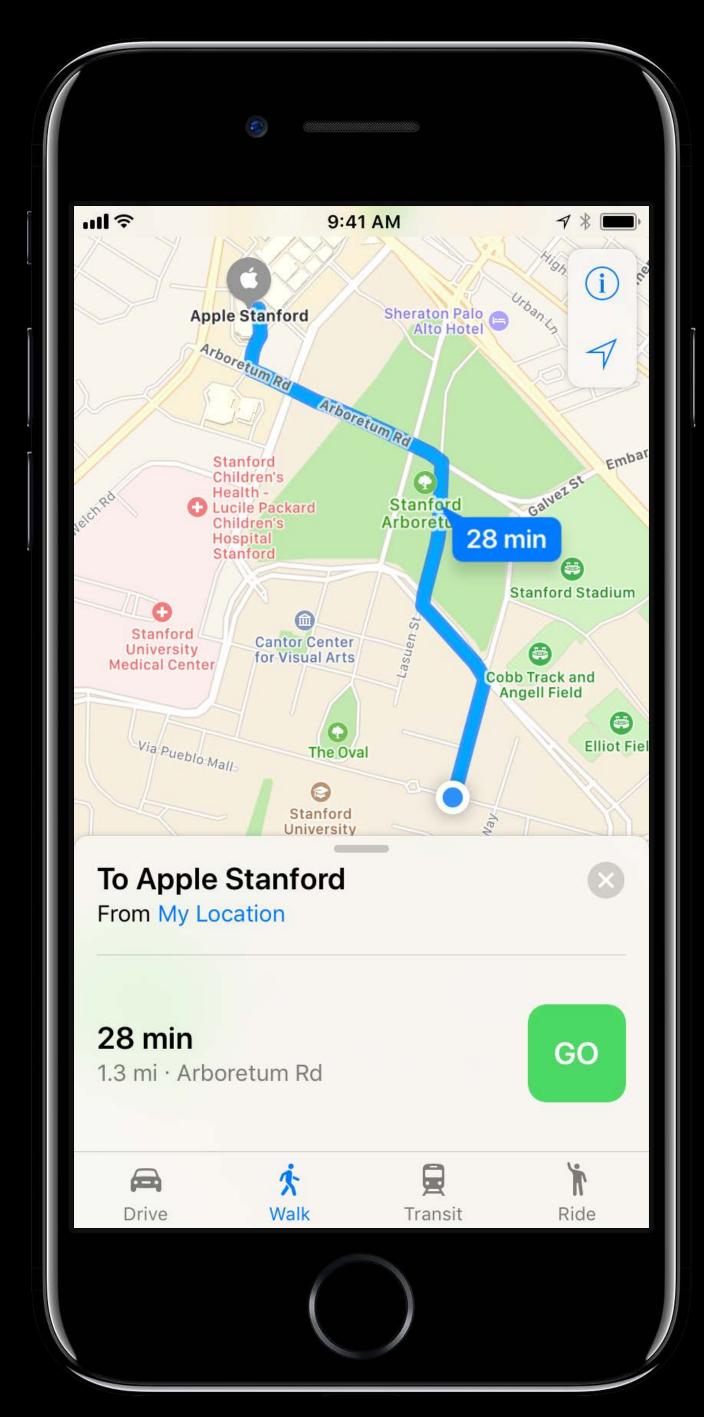


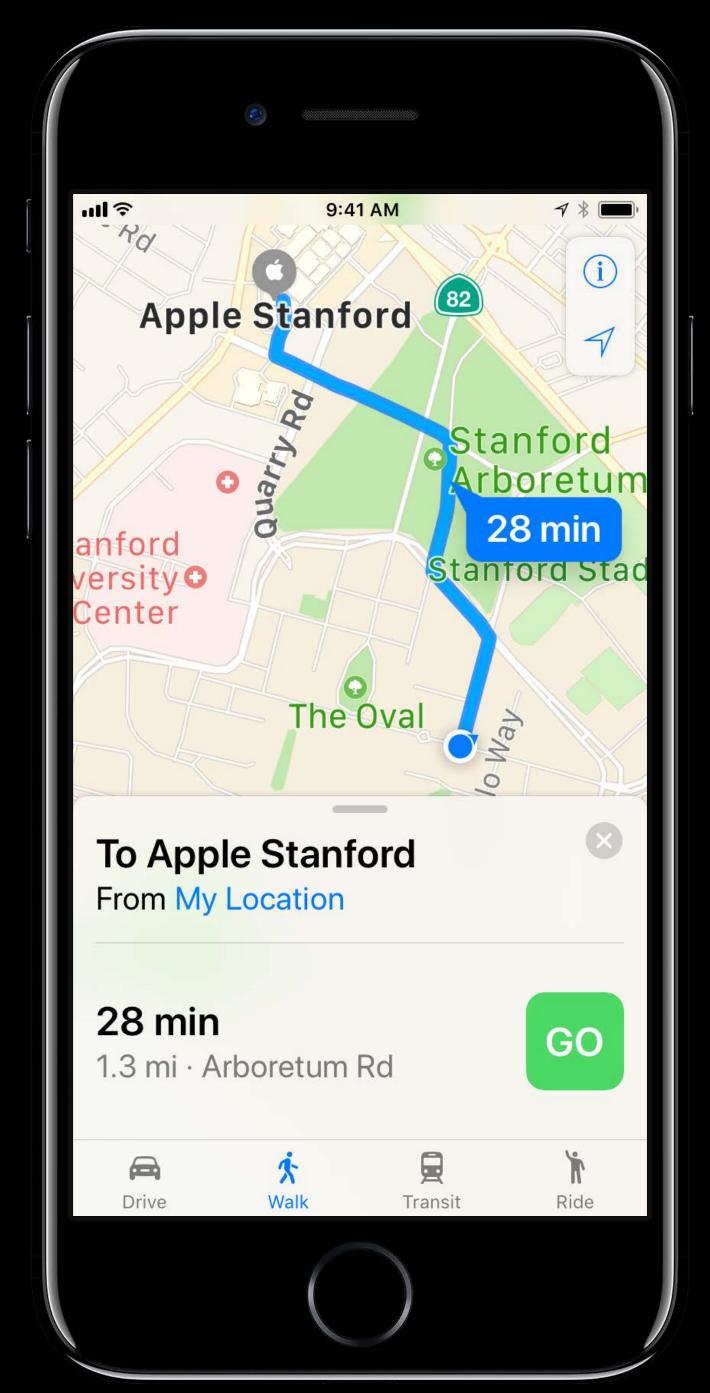




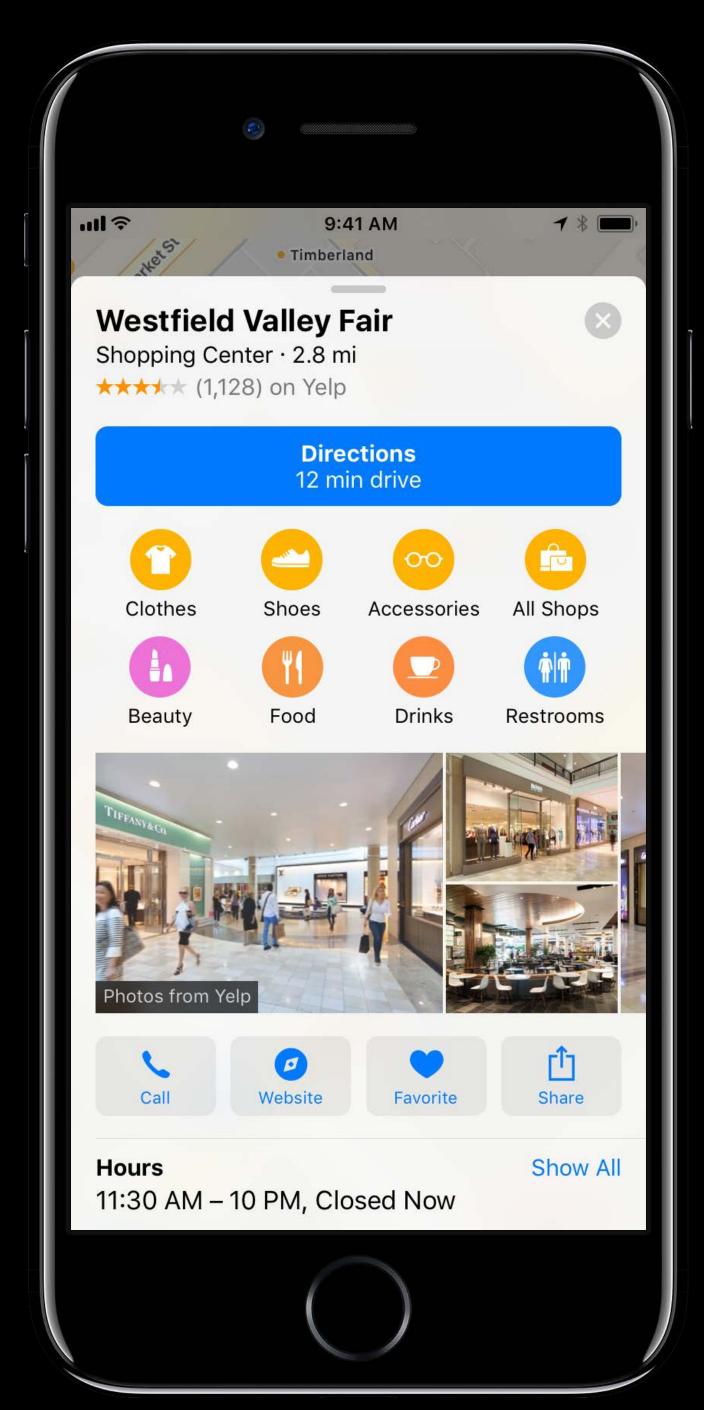


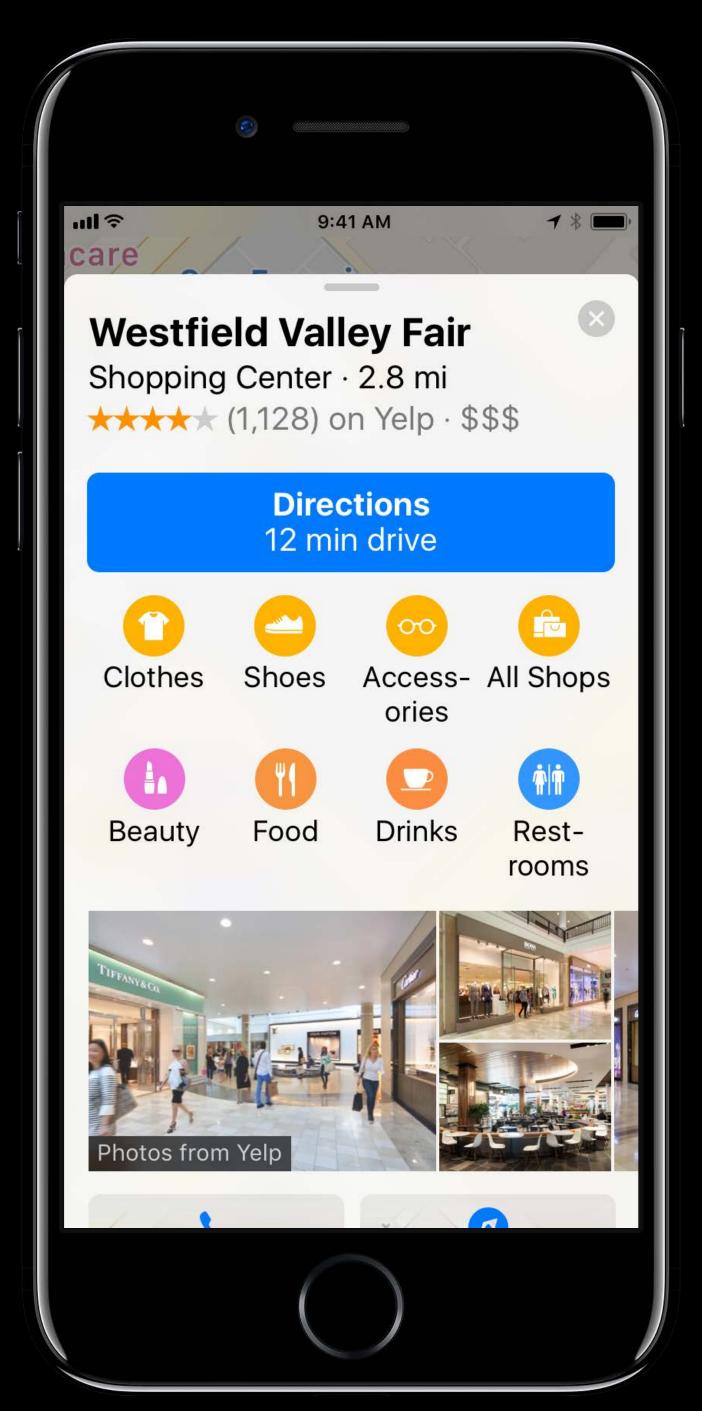


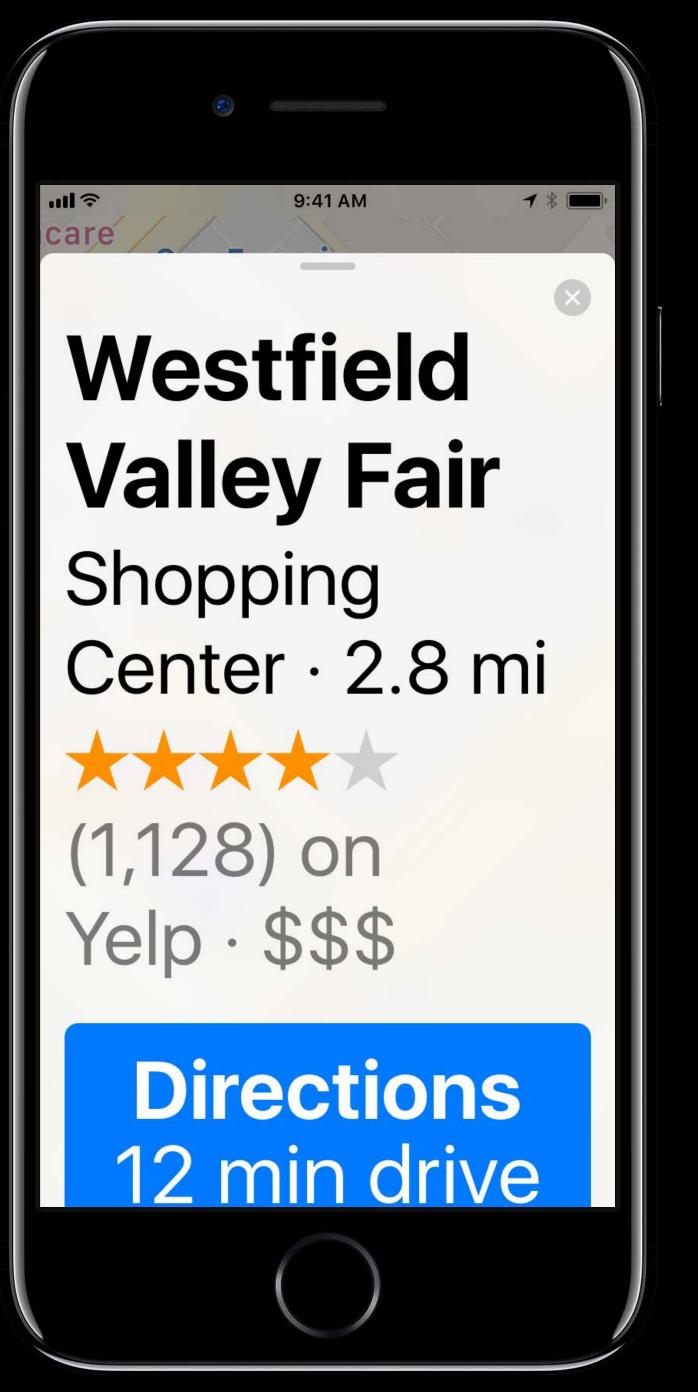


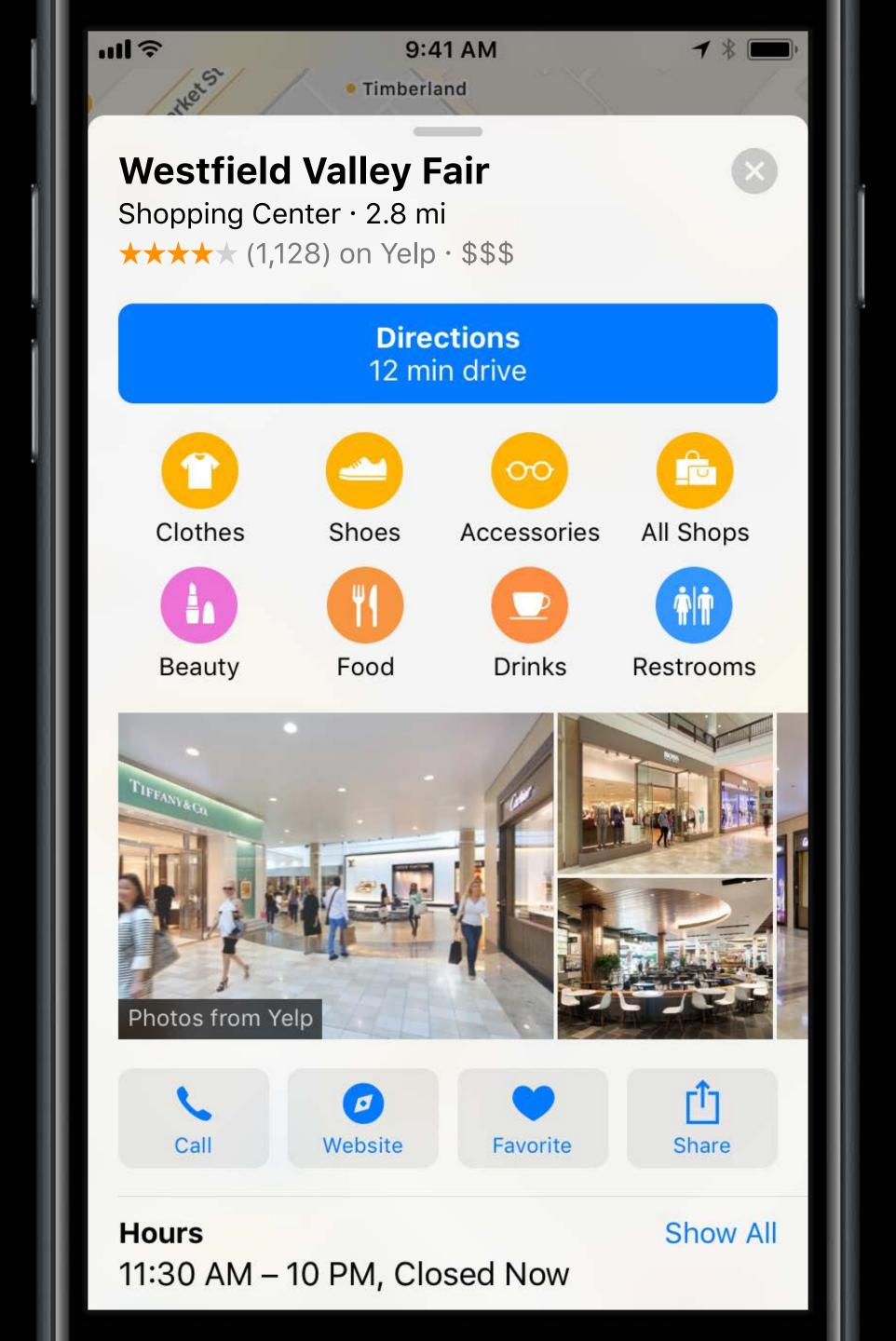


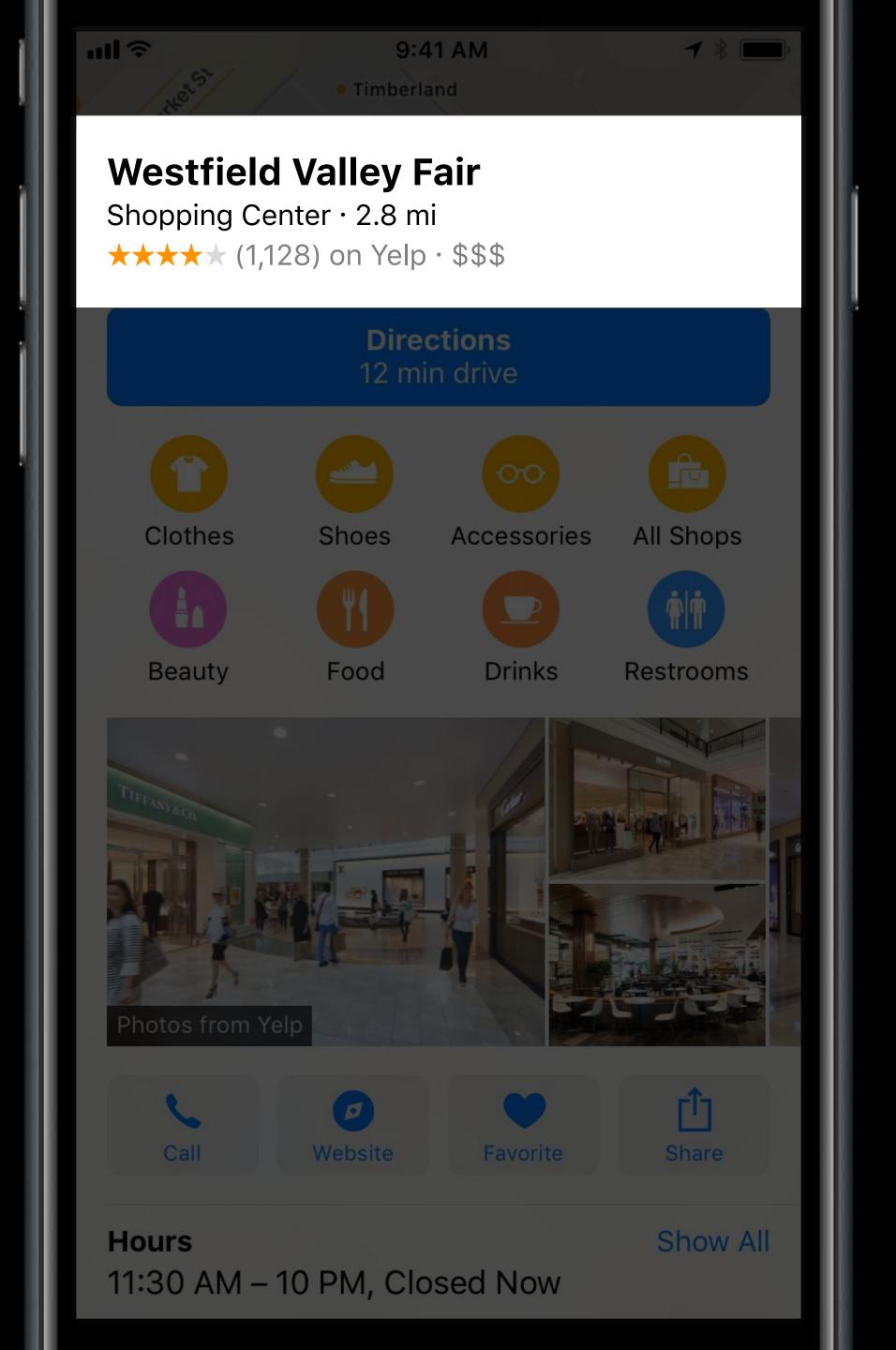












#### Wrap Content

#### **Westfield Valley Fair**

Shopping Center · 2.8 mi

**★★★★** (1,128) on Yelp · \$\$\$

#### Wrap Content

#### **Westfield Valley Fair**

Shopping Center · 2.8 mi

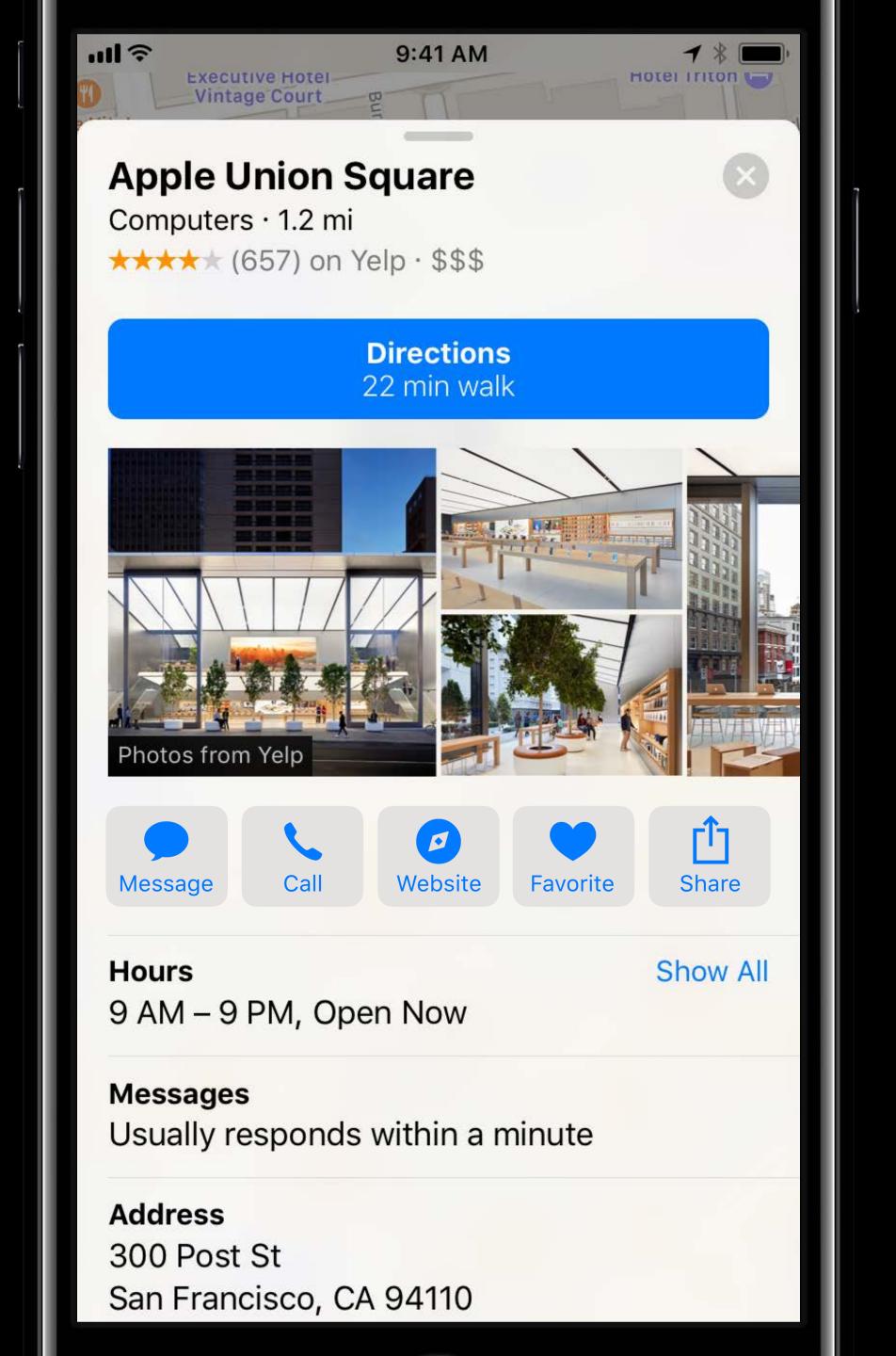
**★★★★★** (1,128) on Yelp · \$\$\$

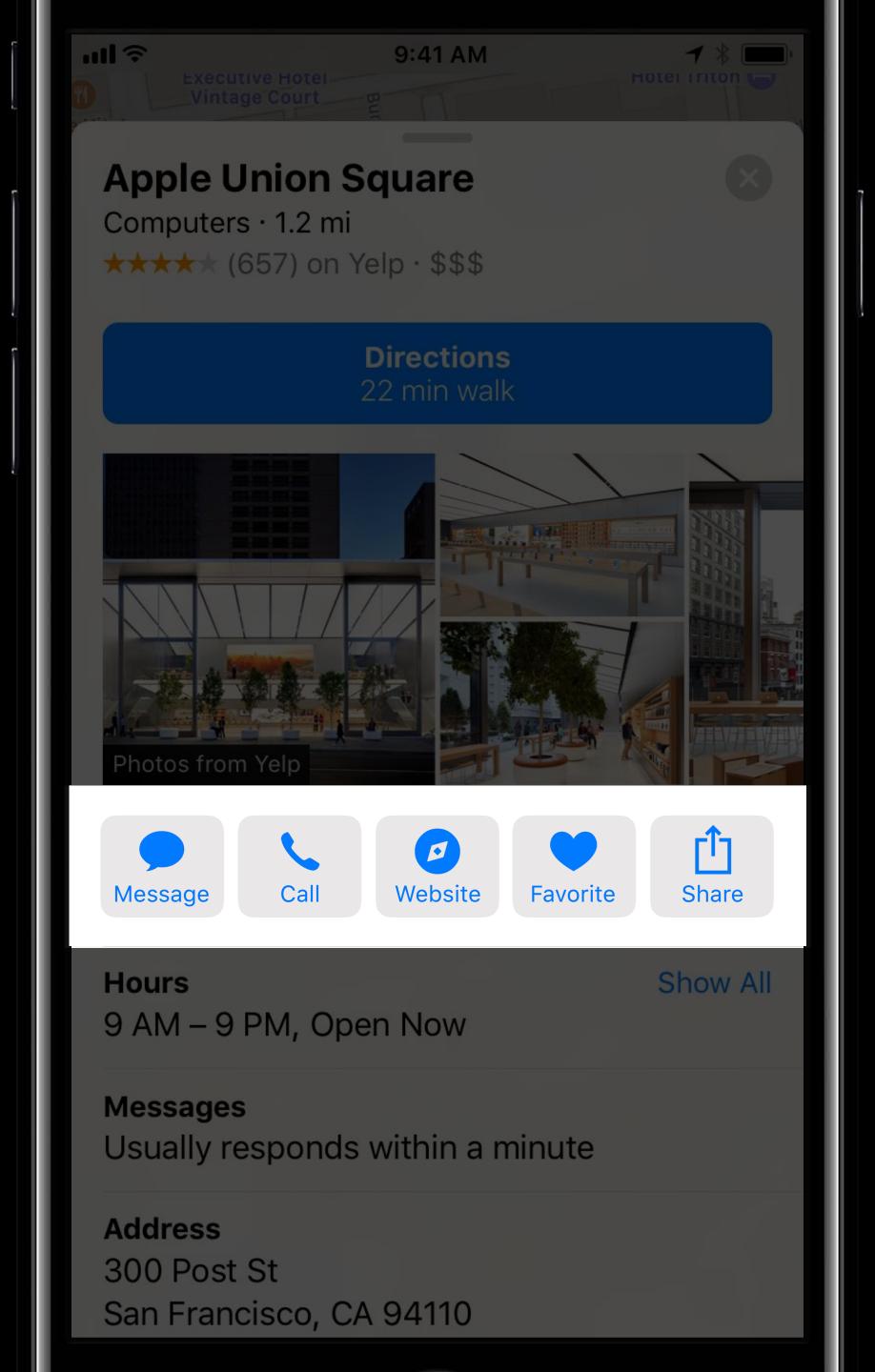
#### Wrap Content

# Westfield Valley Fair

Shopping
Center · 2.8 mi











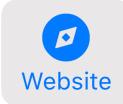


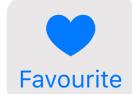






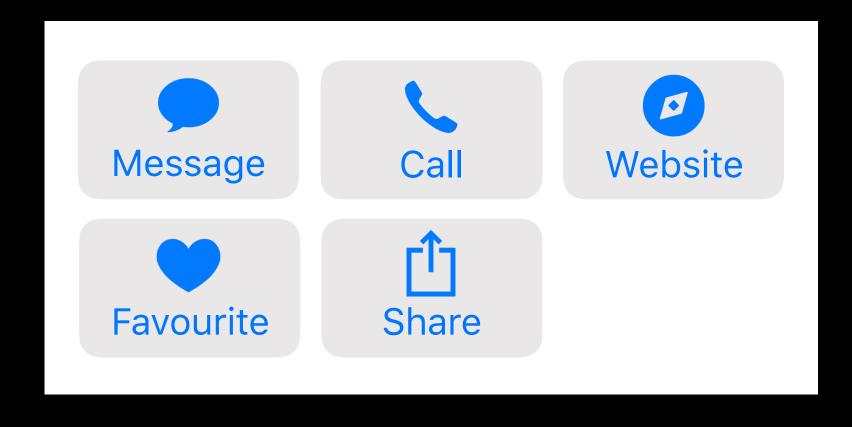




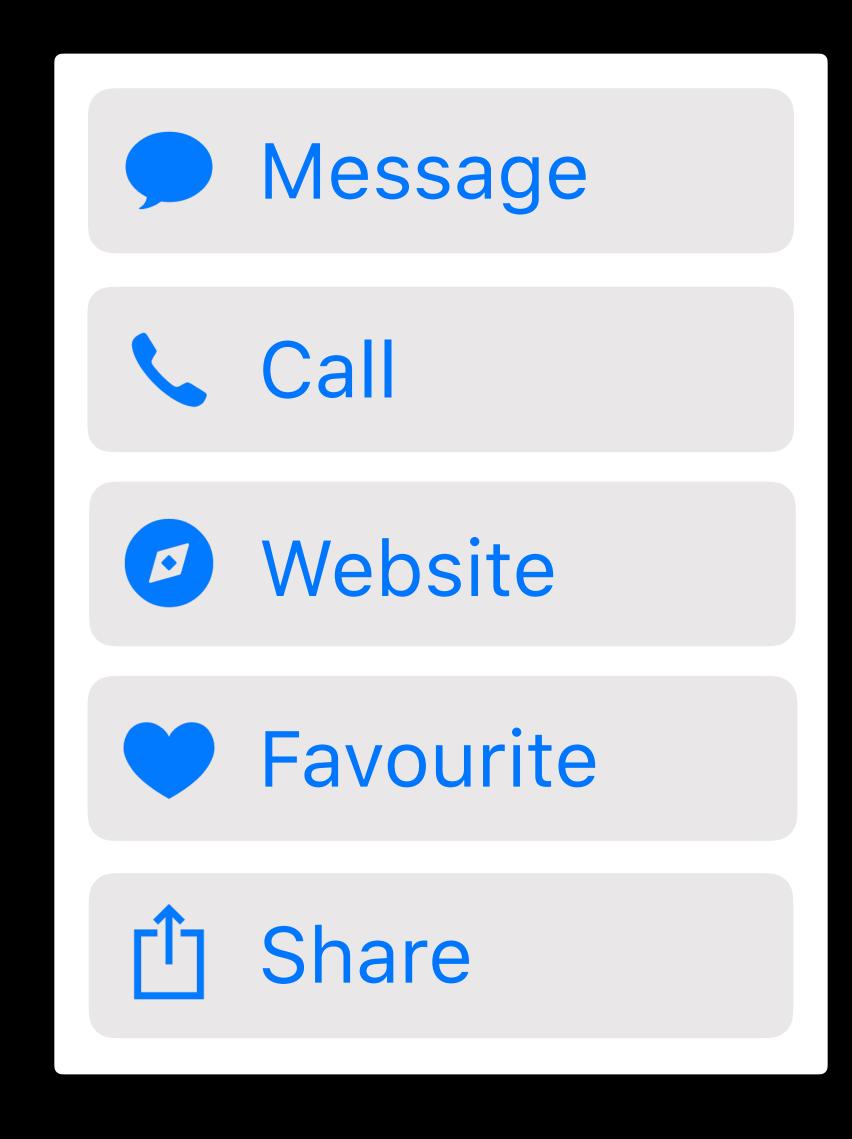




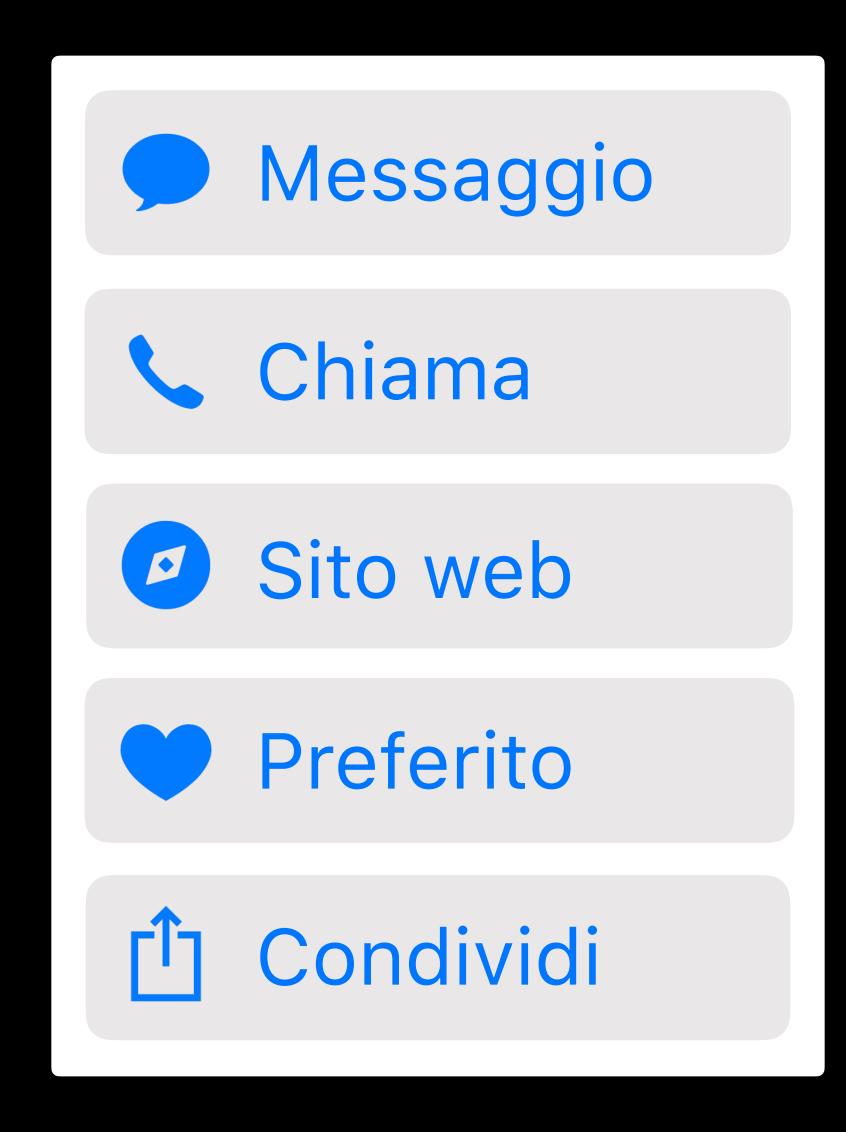
#### Stack Elements



#### Stack Elements

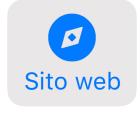


#### Stack Elements



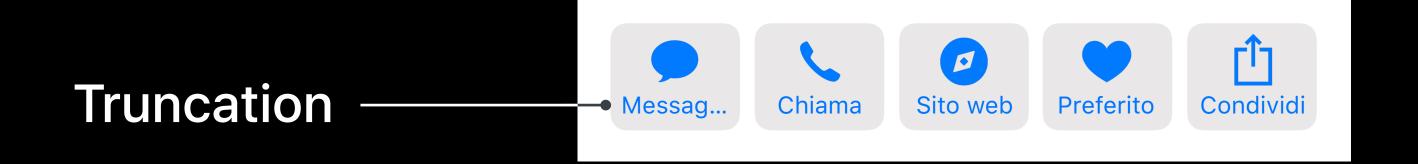


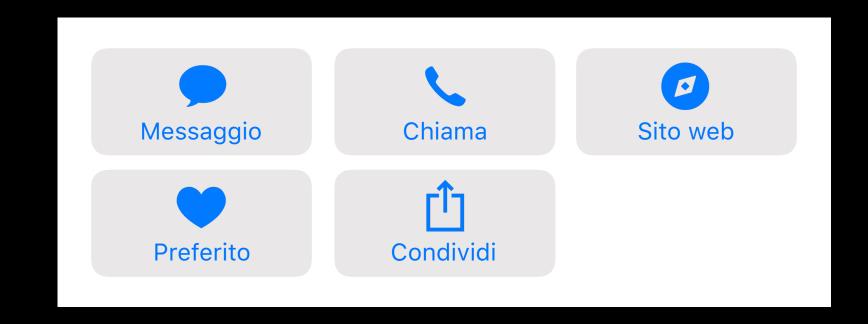


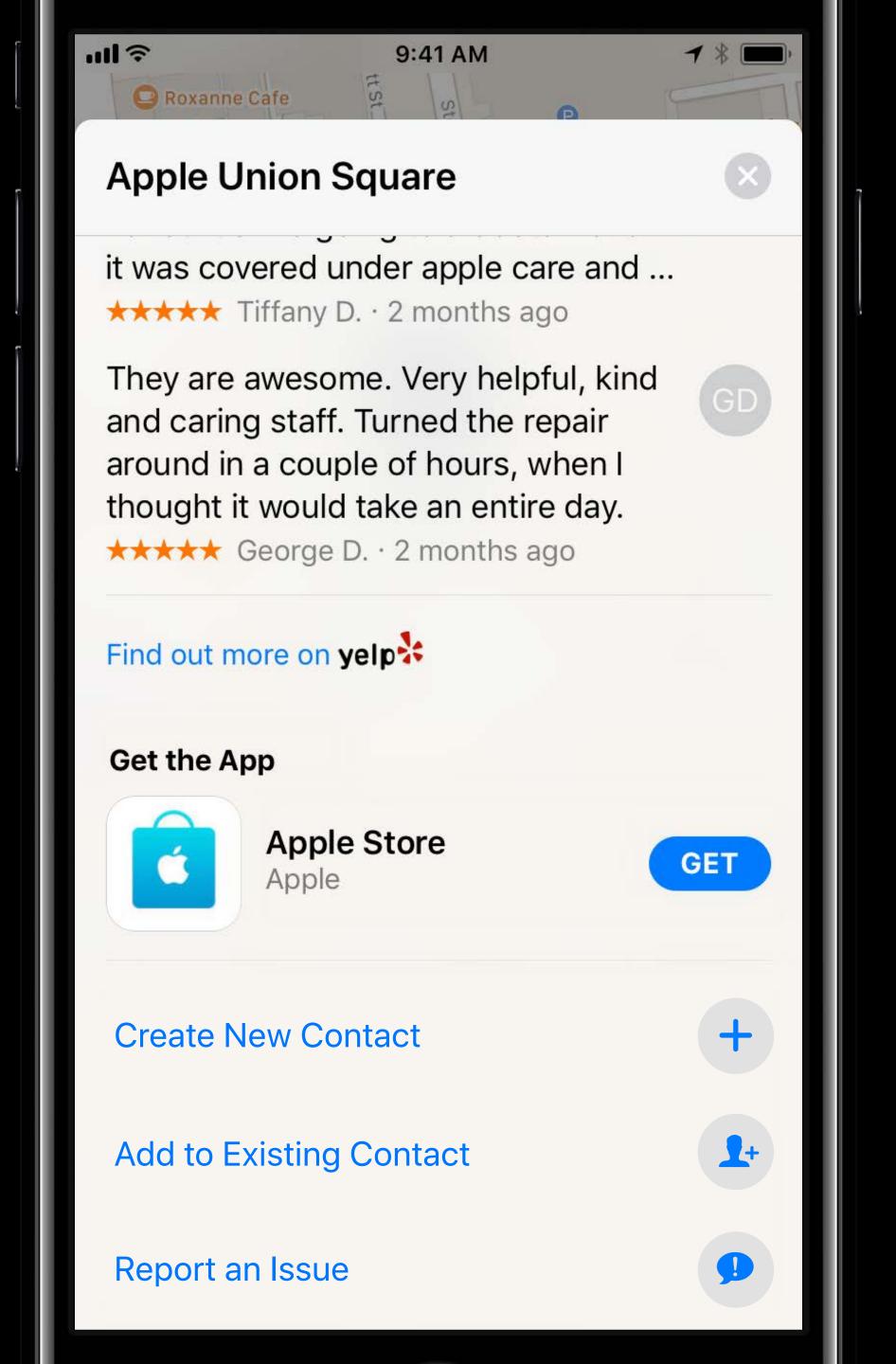


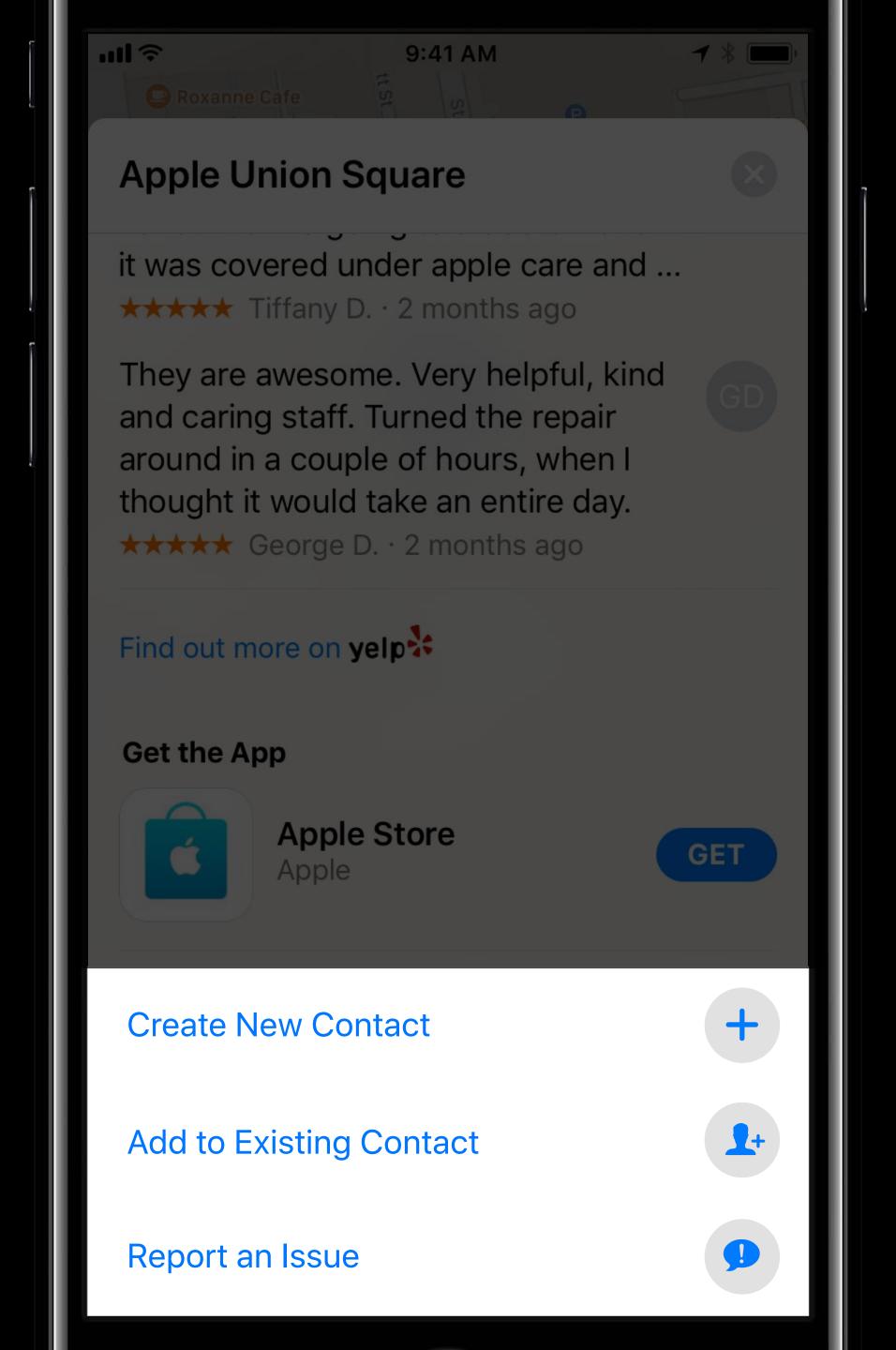












**Create New Contact** 

+

Add to Existing Contact



Report an Issue



#### Scale Icons

**Create New Contact** 



Add to Existing Contact



Report an Issue



#### Scale Icons

Create New Contact



Add to Existing
Contact



Report an Issue



## It's challenging.

One of the few effective keys to the design problem: the ability of the designer to recognize as many of the constraints as possible, their willingness and enthusiasm for working within these constraints.

Charles Eames

## Be empathetic



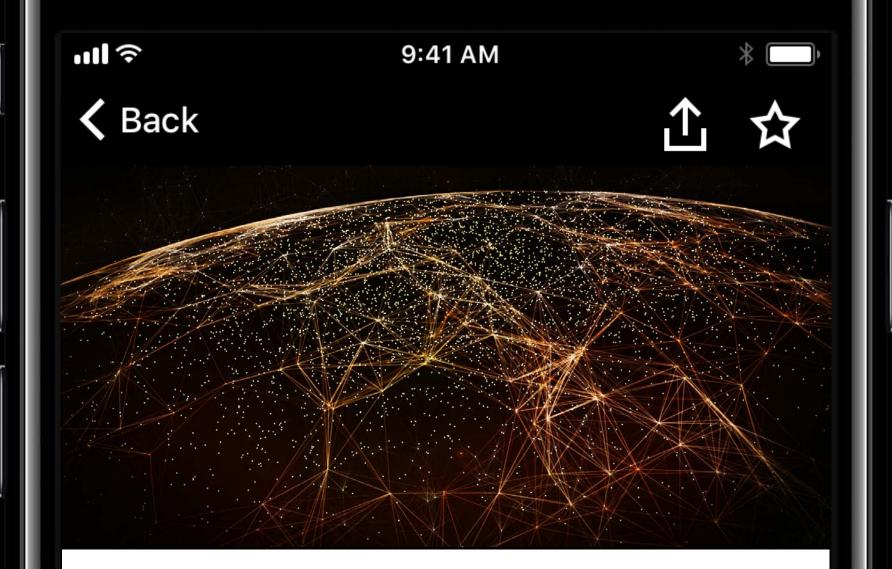


JOHNNY APPLESEED JUNE 8TH 2017

Vestibulum non scelerisque augue, sit amet egestas mi. Integer tincidunt malesuada metus sit amet auctor. Aenean ut erat vitae dolor rhoncus ullamcorper.

Integer consequat elementum diam. Sed tincidunt convallis molestie. Sed quis ultrices ex, at ullamcorper magna. Nam euismod dignissim tortor nec rhoncus. Integer mattis massa dolor. Sed quis velit turpis.

Mauris consequat eros ligula, in tincidunt turpis rutrum nec. Curabitur eu diam justo. Donec orci lorem, gravida et est quis, facilisis consequat sapien. Duis a rhoncus elit. Donec lobortis facilisis lacus a porttitor. Phasellus ut justo quis mauris aliquam



## Lorem ipsum dolor sit amet

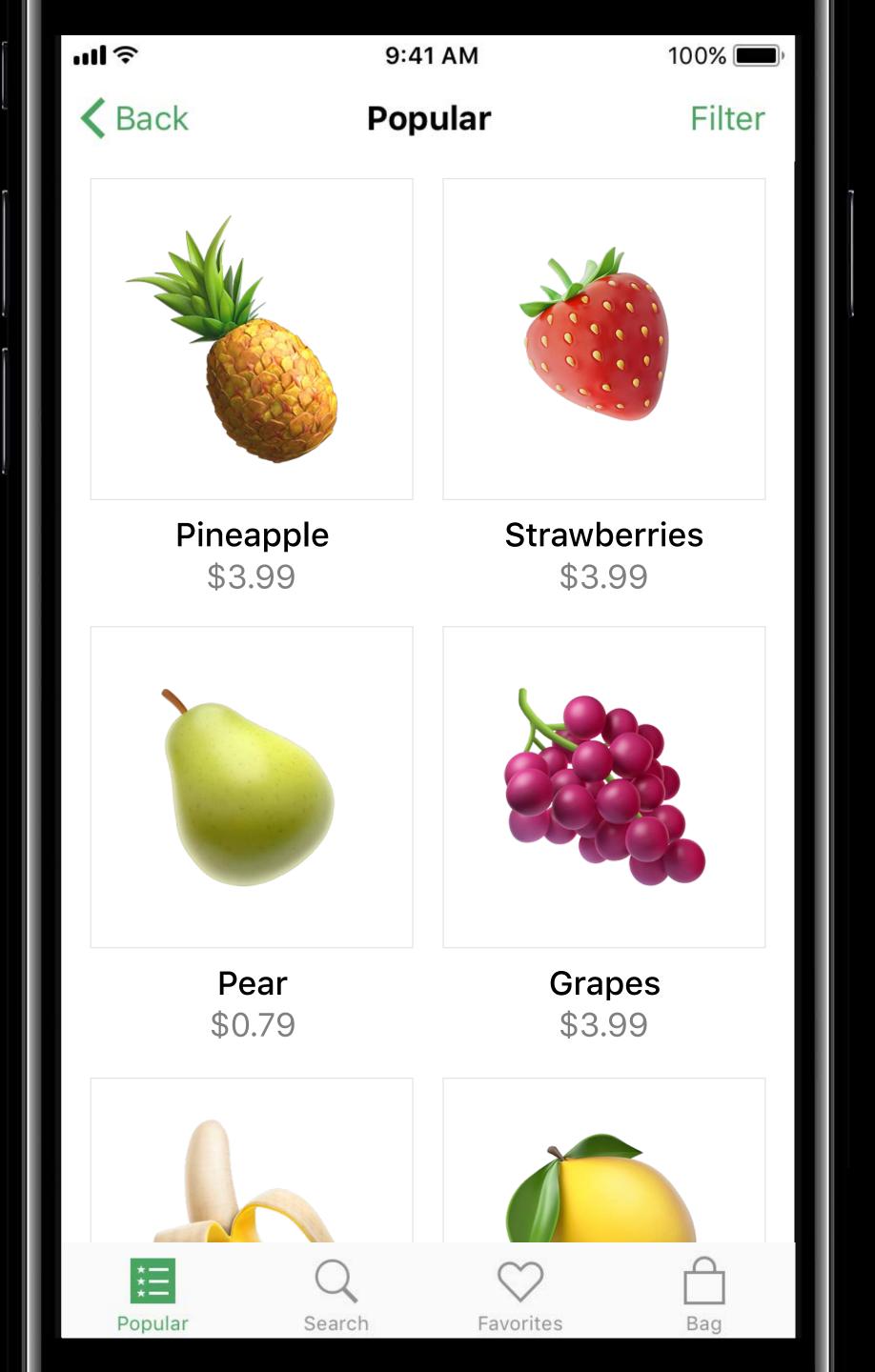
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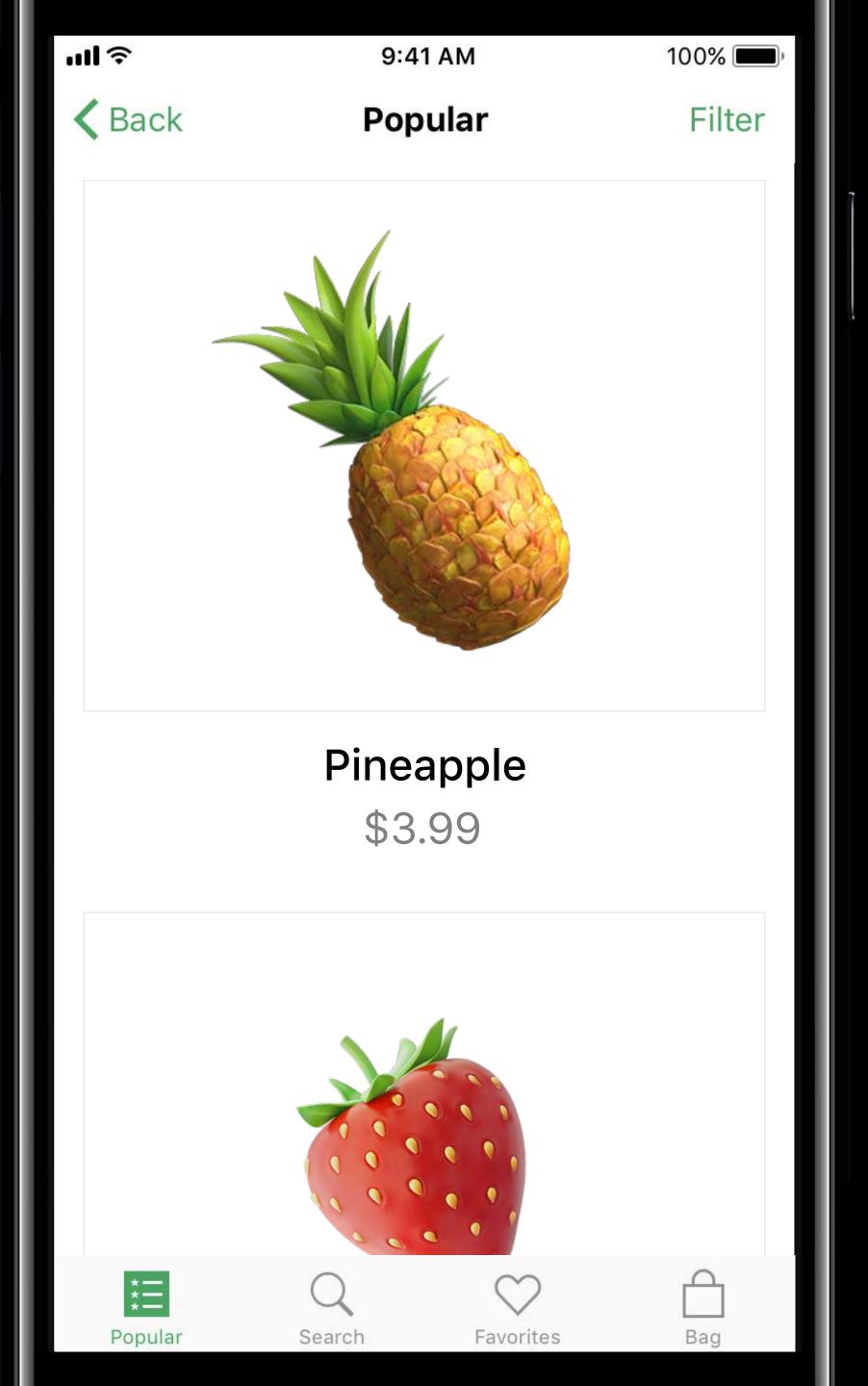
Vestibulum non scelerisque augue, sit amet egestas mi. Integer tincidunt malesuada metus sit amet auctor. Aenean ut erat vitae dolor rhoncus ullamcorper.

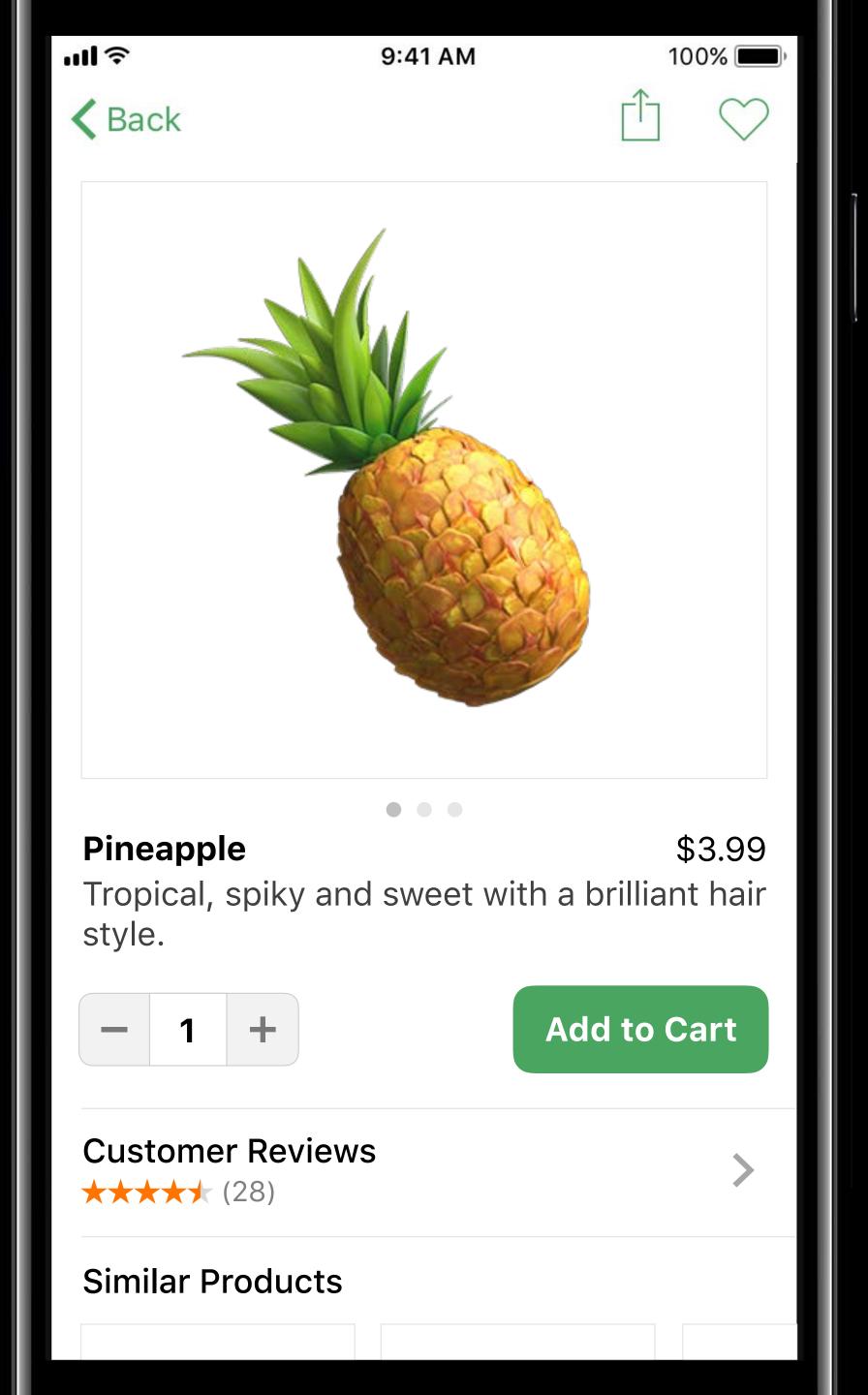
Integer consequat elementum diam. Sed tincidunt convallis

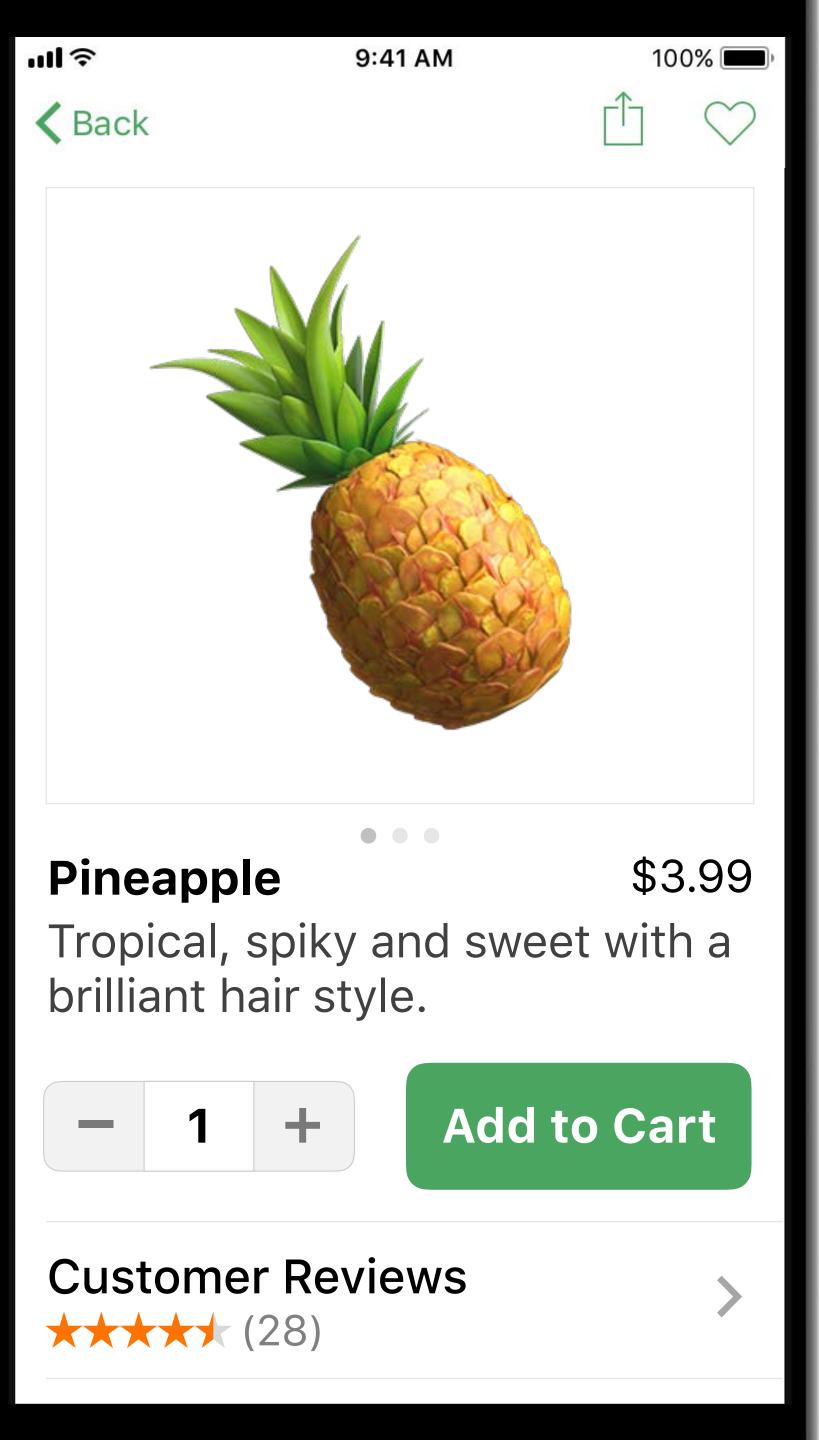
molestie. Sed quis ultrices ex, at

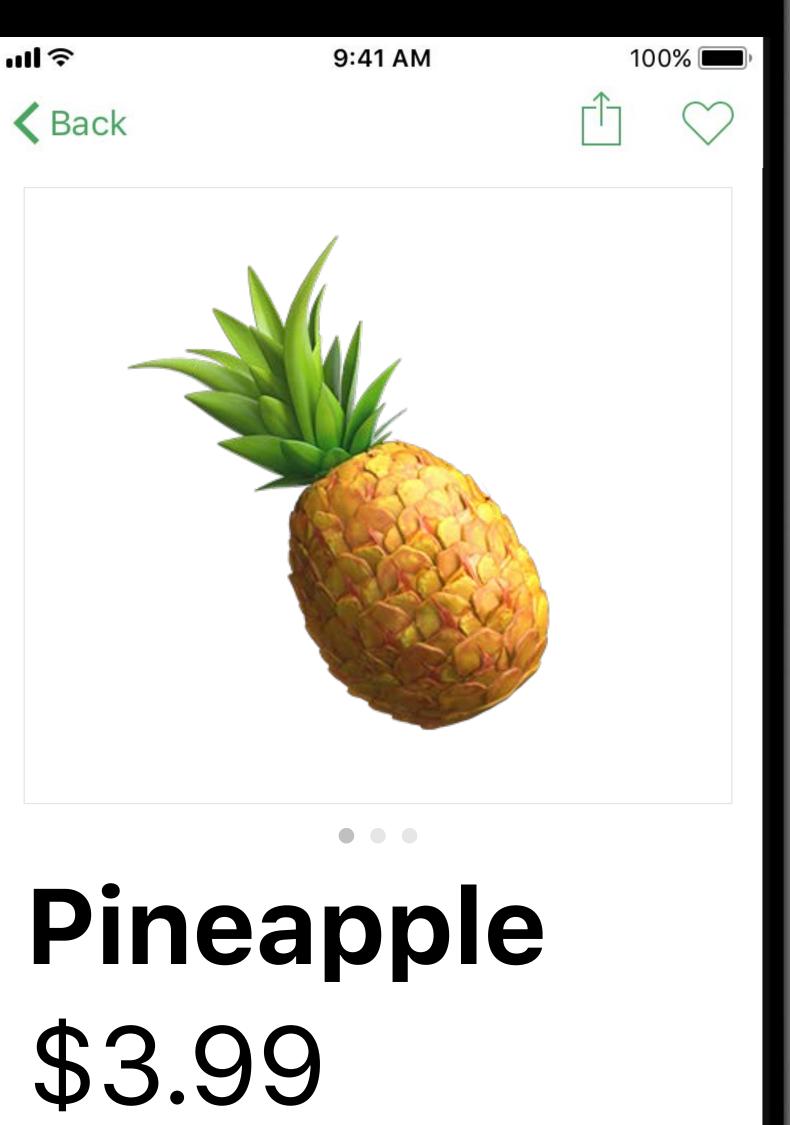




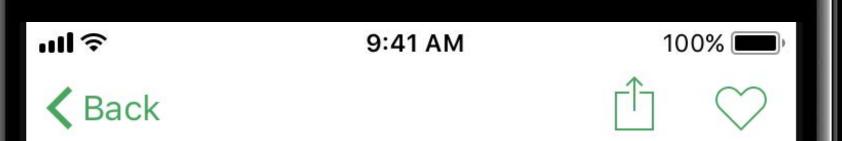








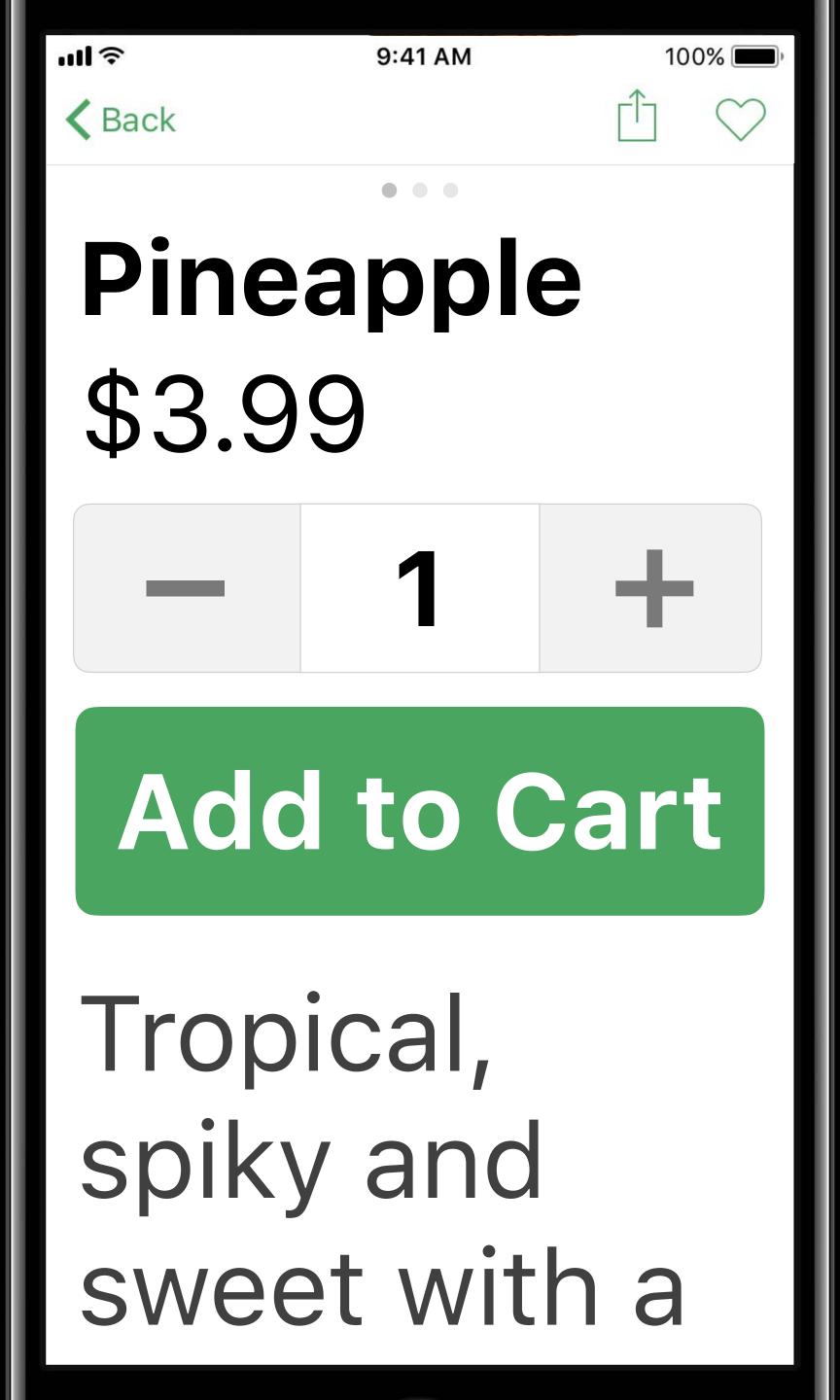
\$3.99
Tropical,
spiky and

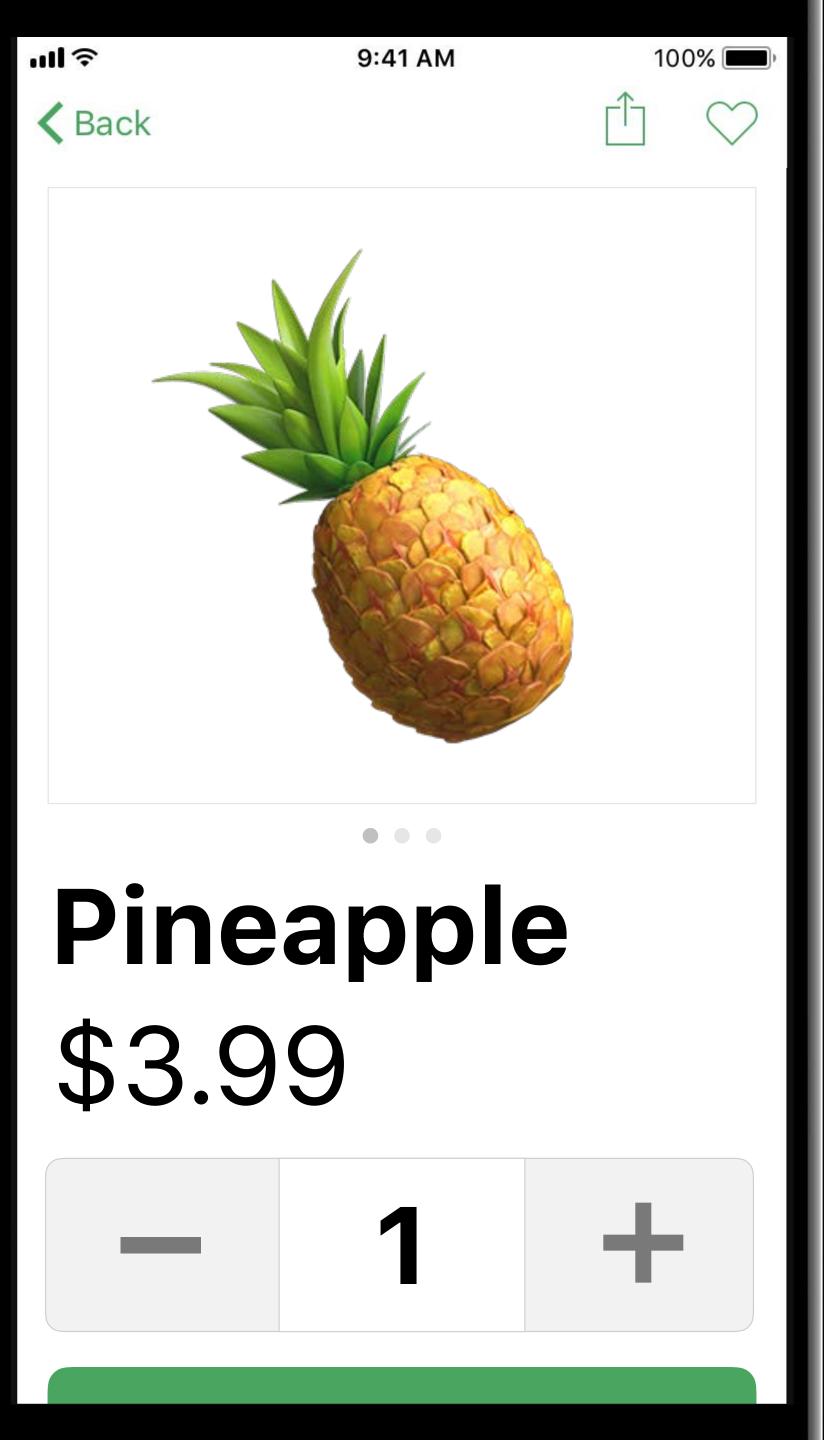


## Pineapple \$3.99 Tropical,

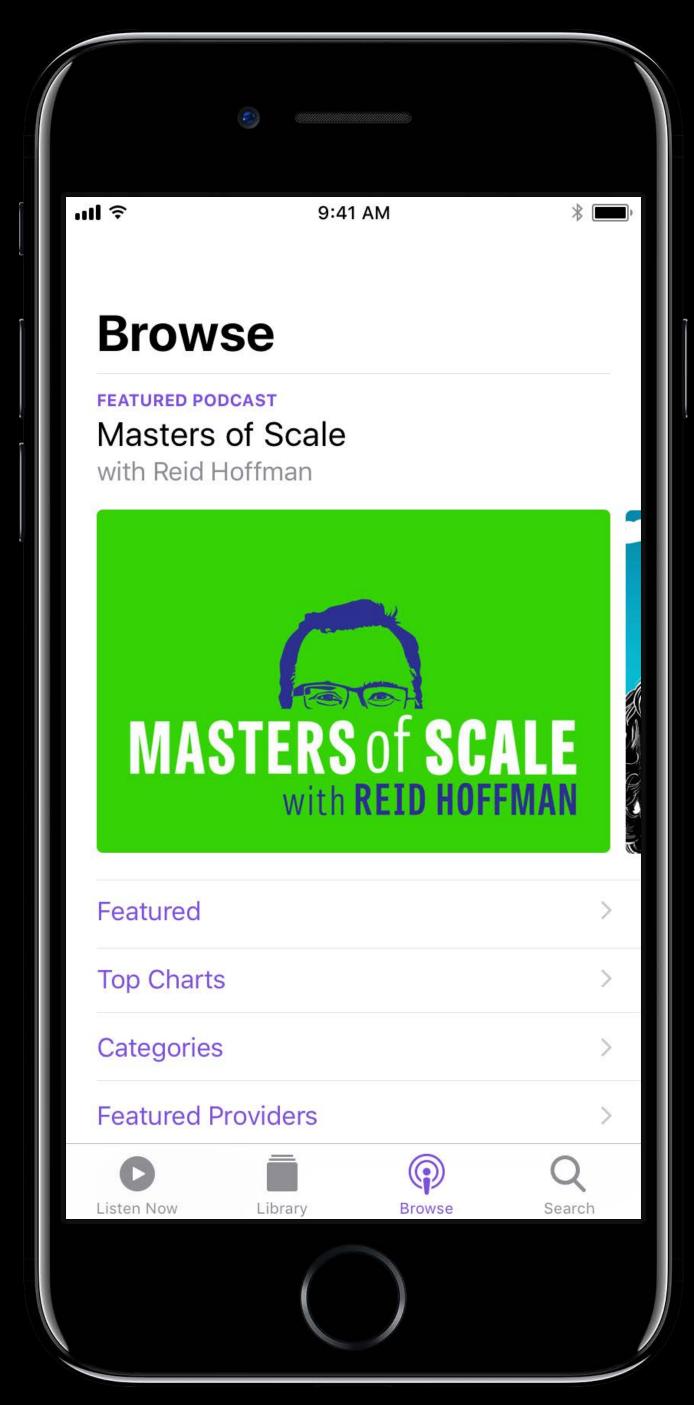
spiky and sweet with a brilliant hair style.

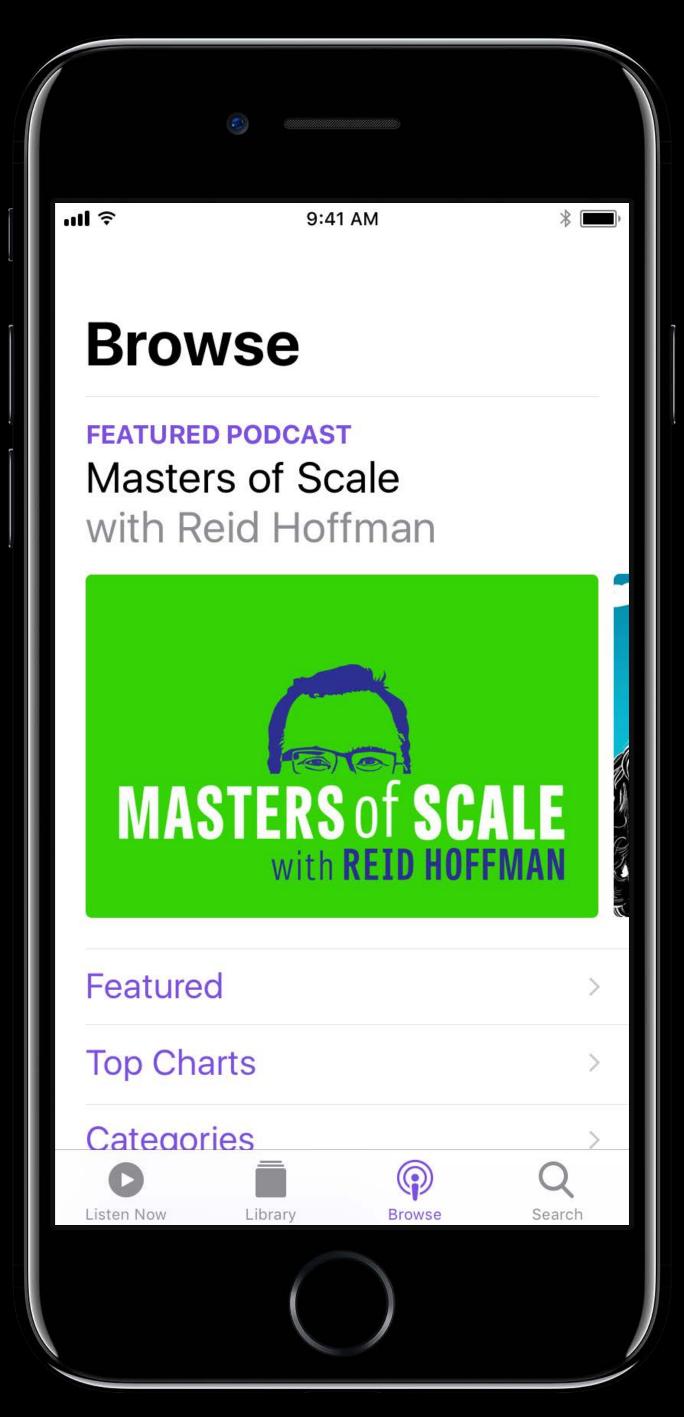
- 1 +

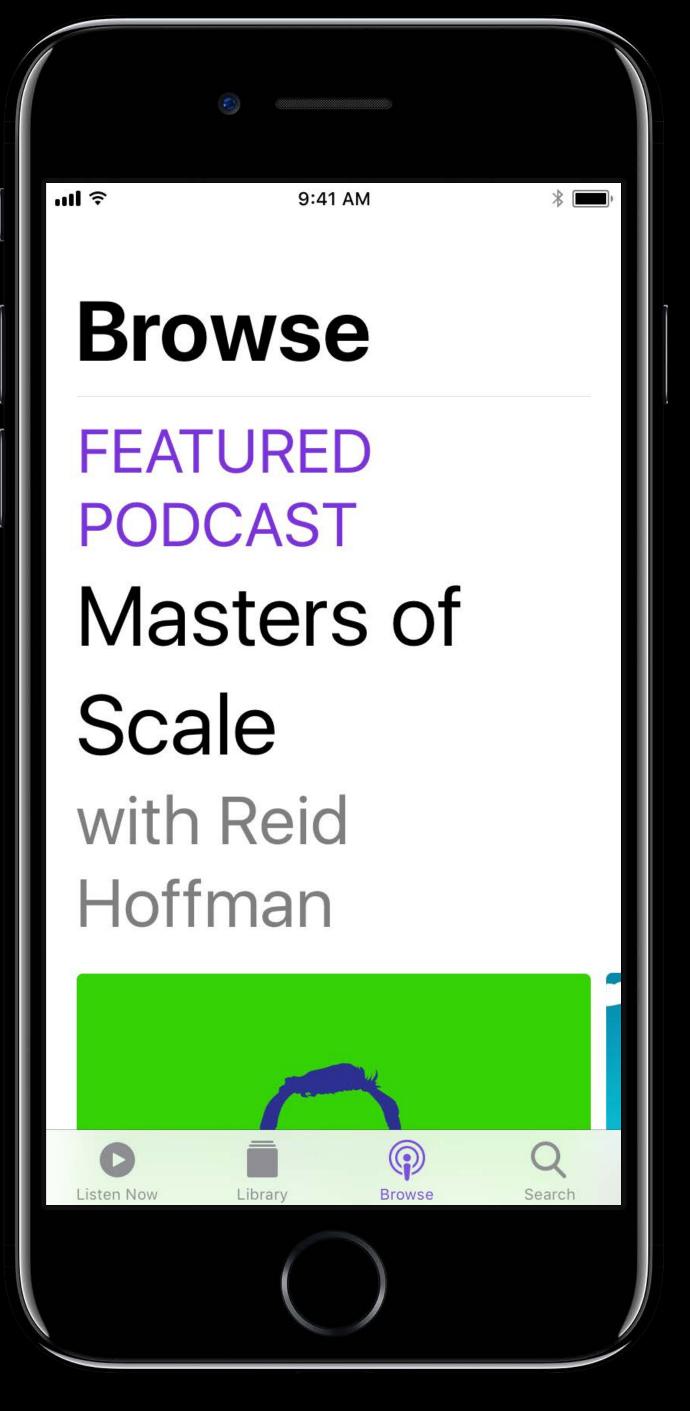












### Unlock potential

Ludwig Wittgenstein

## Die Grenzen meiner Sprache bedeuten die Grenzen meiner Welt

Ludwig Wittgenstein

# The limits of my language mean the limits of my world

Ludwig Wittgenstein



### Simplicity

Easy to navigate

Quick to get started

Consistent behavior



### Perceivability

Maximize legibility

Audible cues

Haptic feedback



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Take responsibility

Be empathetic

Unlock potential



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Darken Colors

Siri integration

Reduce Motion

Increase contrast

Haptics

Dynamic Type

Captions



**Bold Text** 

**Smart Invert Colors** 

Start now

Image descriptions

VoiceOver

UI element sounds

Reduce Transparency

Button shapes

High color contrast ratios



### Do it proudly



### Design for Everyone



### Design for Everyone

#### More Information

https://www.apple.com/accessibility/

#### More Information

https://developer.apple.com/wwdc17/806

### Related Sessions

Building Apps with Dynamic Type	Executive Ballroom	Friday 1:50PM
Designing Across Platforms	Hall 3	Thursday 4:10PM
Making Great SiriKit Experiences		WWDC17
Designing Sound		WWDC17
Media and Gaming Accessibility		WWDC17
What's New in SiriKit		WWDC17
What's New in Accessibility		WWDC17

#### Labs

User Interface Design by Appointment Lab	User Interface Design Lab A	Thu 9:00AM-6:00PM
Accessibility Design by Appointment Lab	User Interface Design Lab B	Thu 9:00AM-6:00PM
User Interface Design by Appointment Lab	User Interface Design Lab A	Fri 9:00AM-6:00PM
Accessibility Lab	User Interface Design Lab B	Fri 9:00AM-6:00PM
Accessibility and Dynamic Type Lab	Technology Lab C	Fri 4:00PM-6:00PM

# SWWDC17