Updating Your App For iOS 11

Session 204

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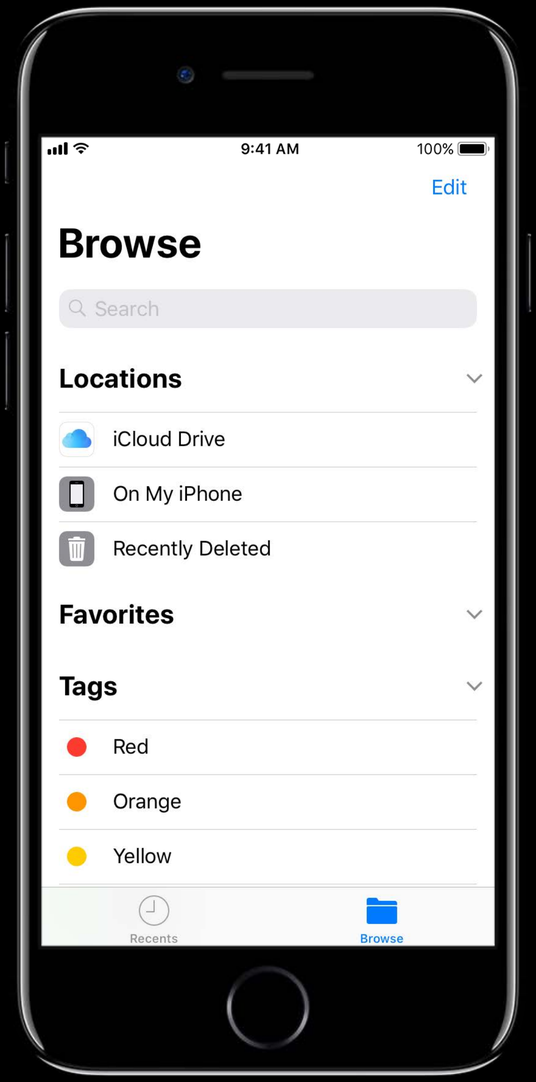
Adopting new functionality in UIKit's Bars

Managing margins and insets

New features of UIScrollView and UITableView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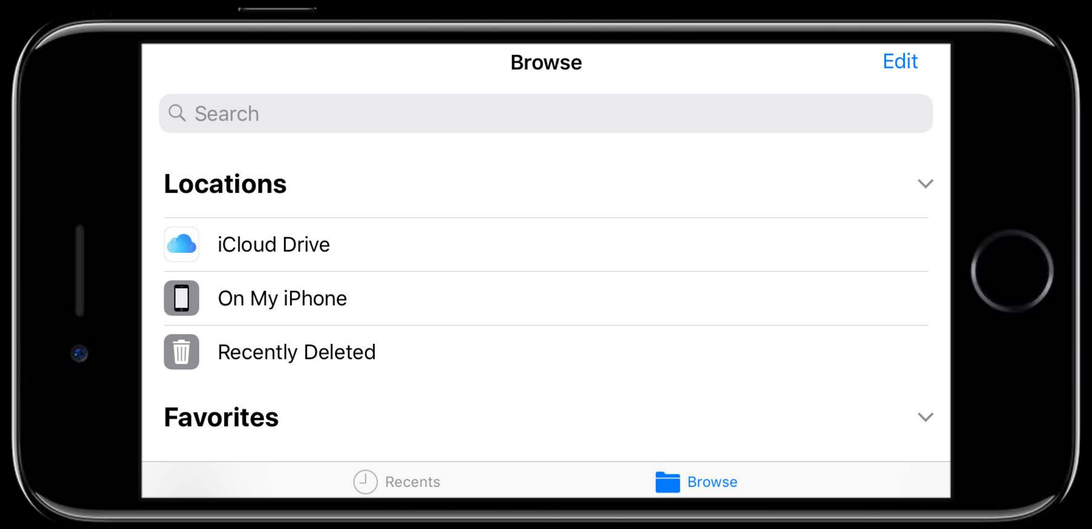
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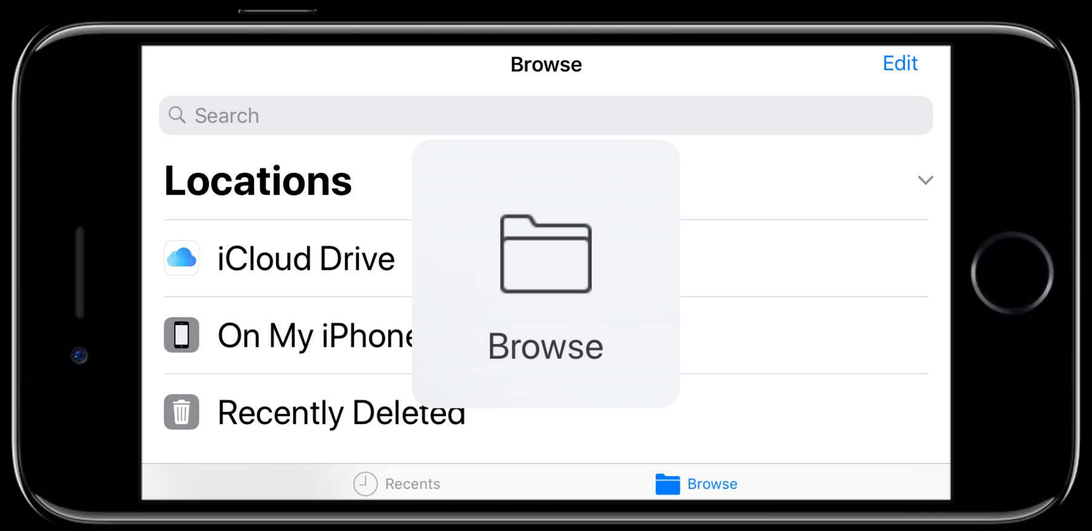
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UIBarItem

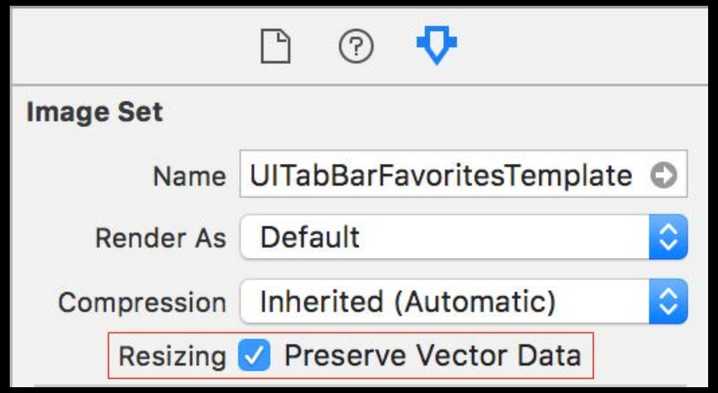
UIBarItem

`UIBarItem.landscapeImagePhone`

UIBarItem

`UIBarItem.landscapeImagePhone`

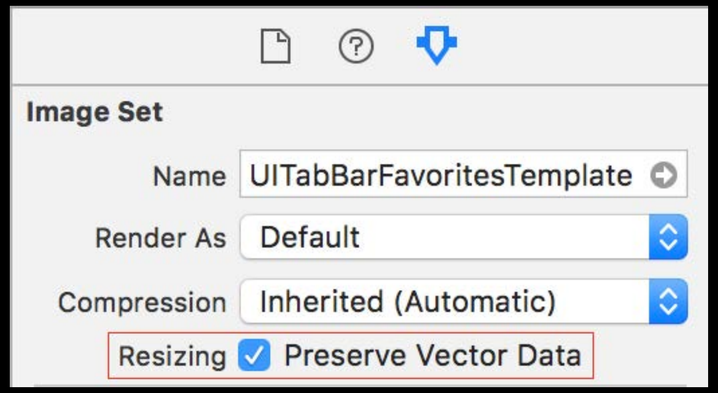
`UIBarItem.largeContentSizeImage`



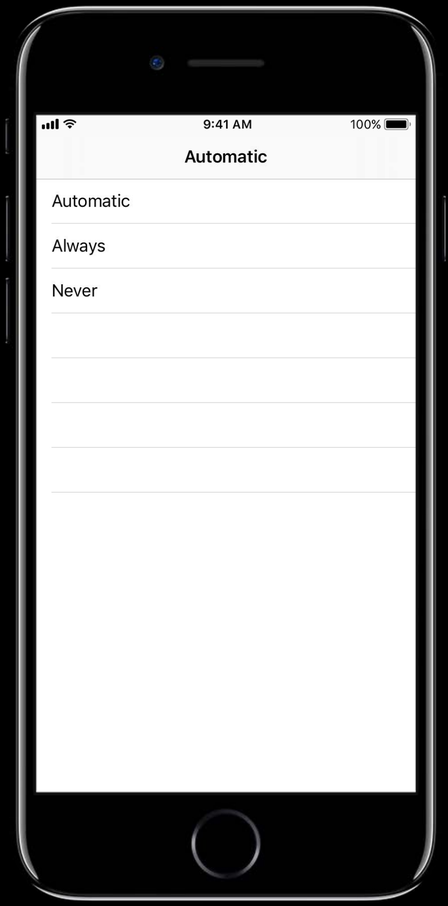
UIBarItem

`UIBarItem.landscapeImagePhone`

`UIBarItem.largeContentSizeImage`

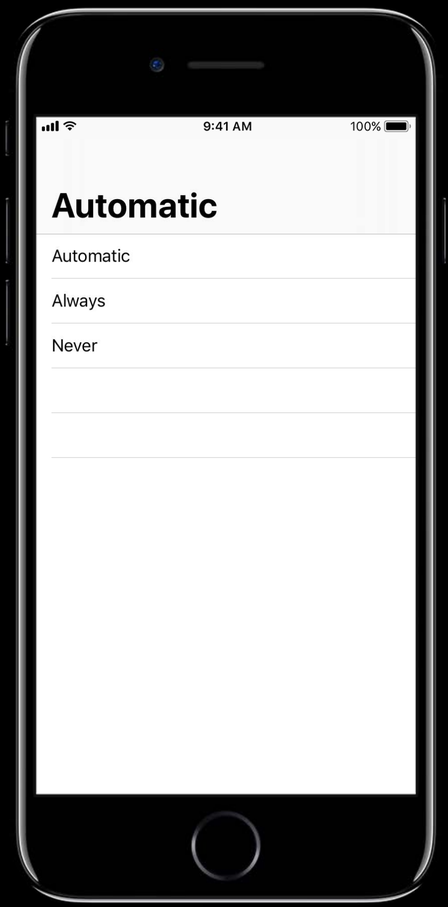


Controlling When Large Titles Display



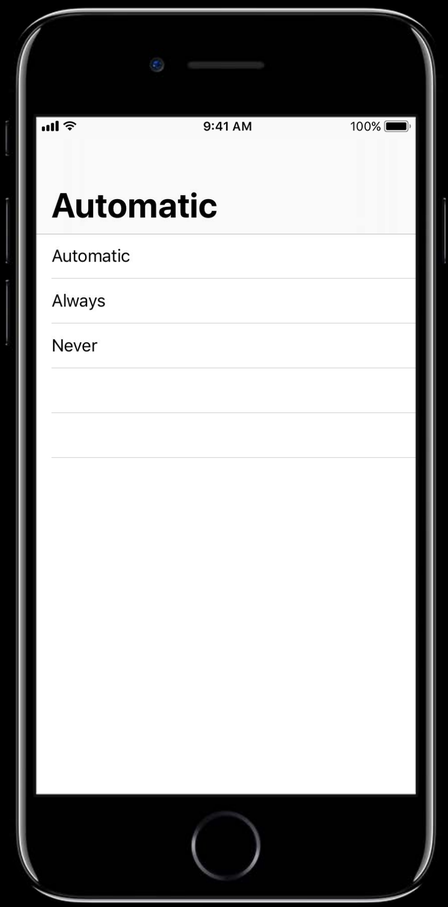
Controlling When Large Titles Display

```
navigationBar.prefersLargeTitles = true
```



Controlling When Large Titles Display

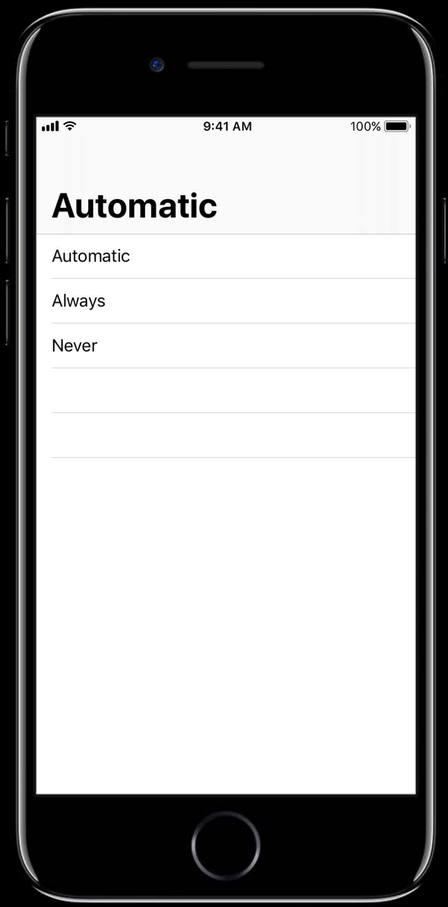
```
navigationItem.largeTitleDisplayMode
```



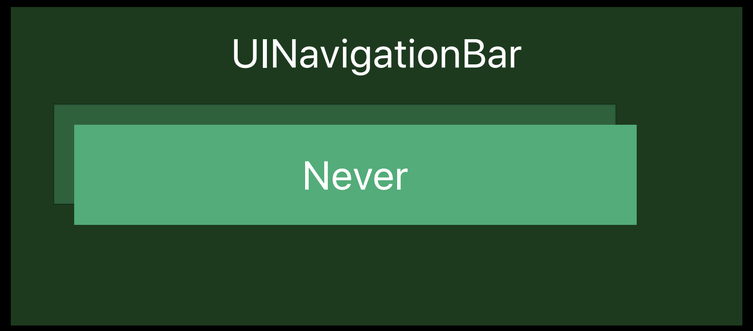
Controlling When Large Titles Display

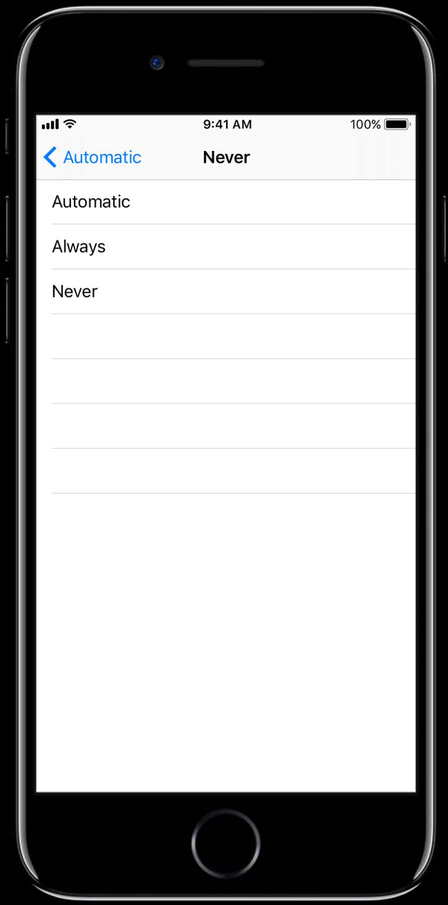
UINavigationBar

Automatic

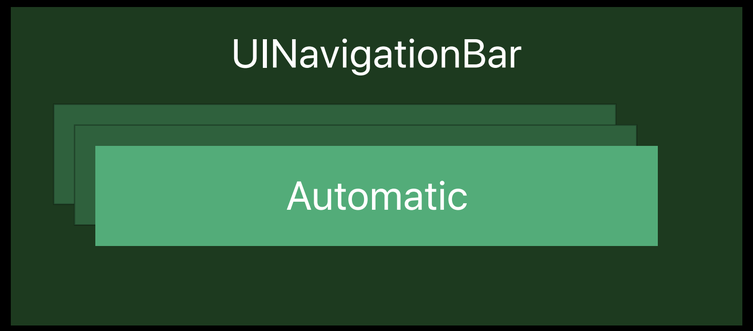


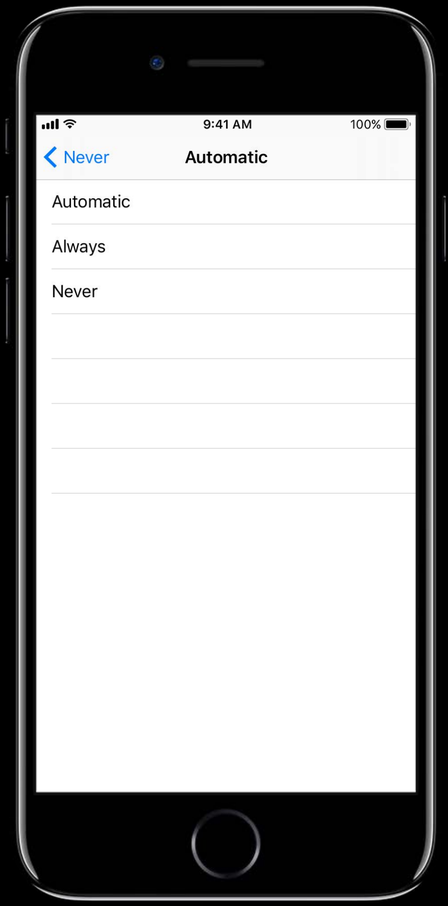
Controlling When Large Titles Display



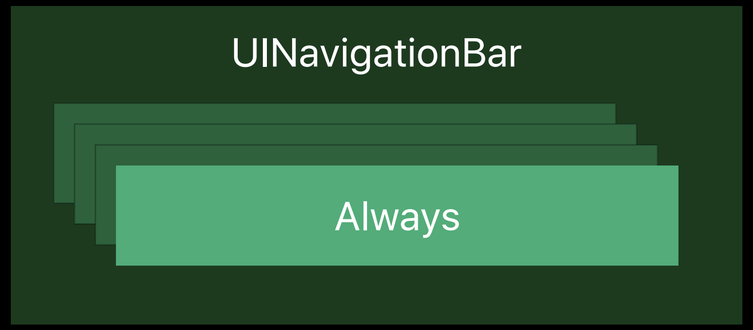


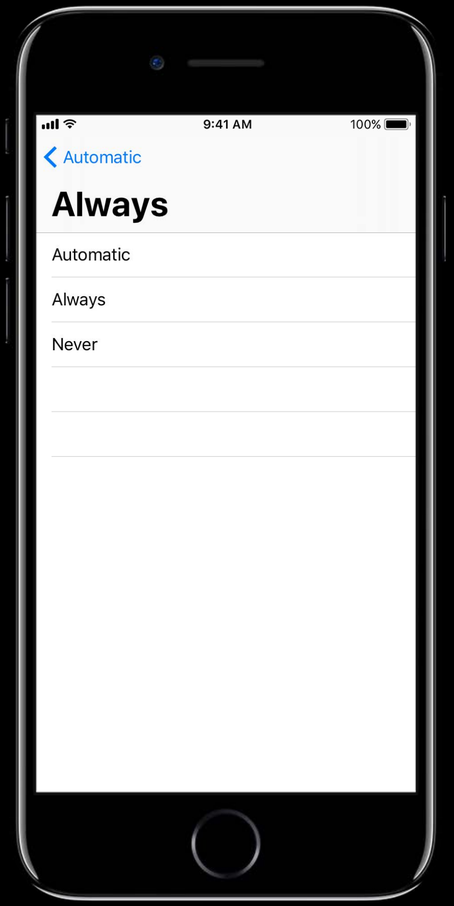
Controlling When Large Titles Display





Controlling When Large Titles Display





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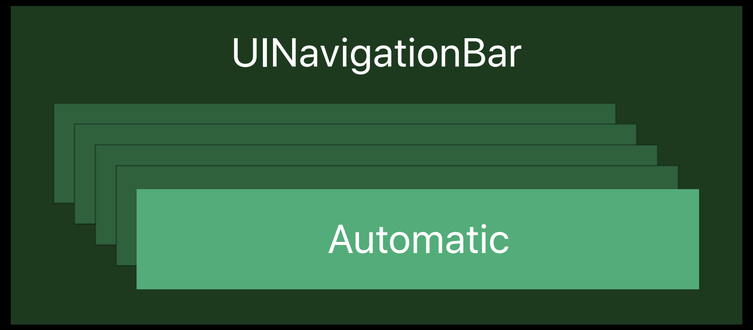

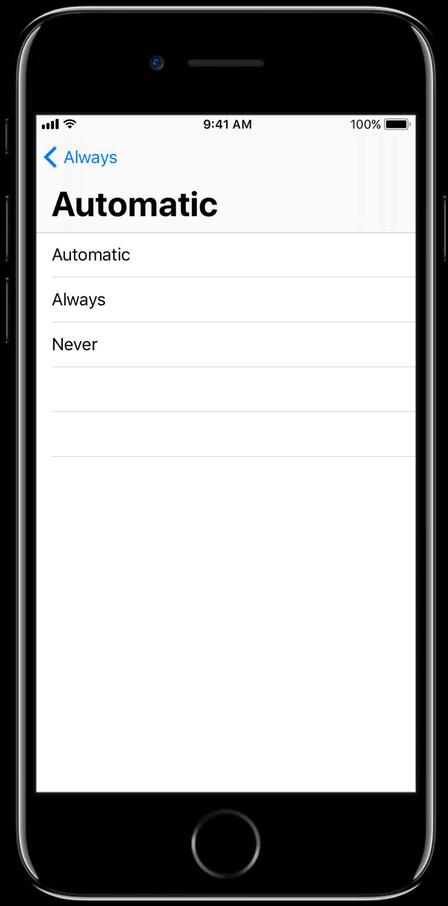

Integrated UISearchController with Navigation

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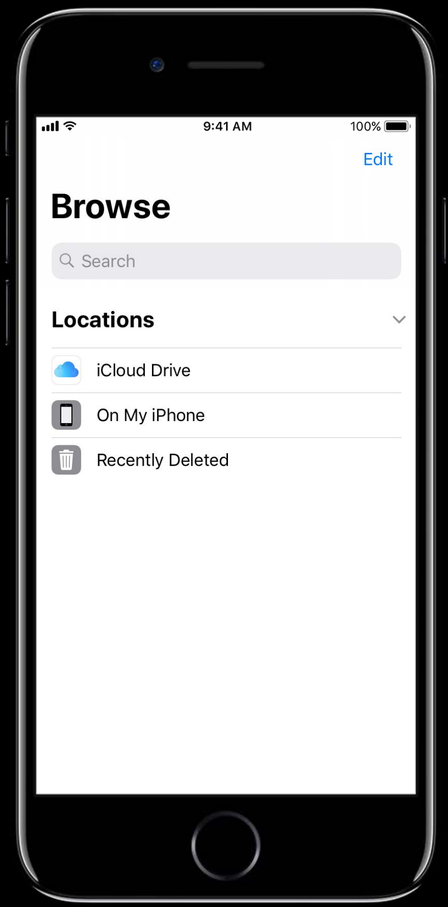
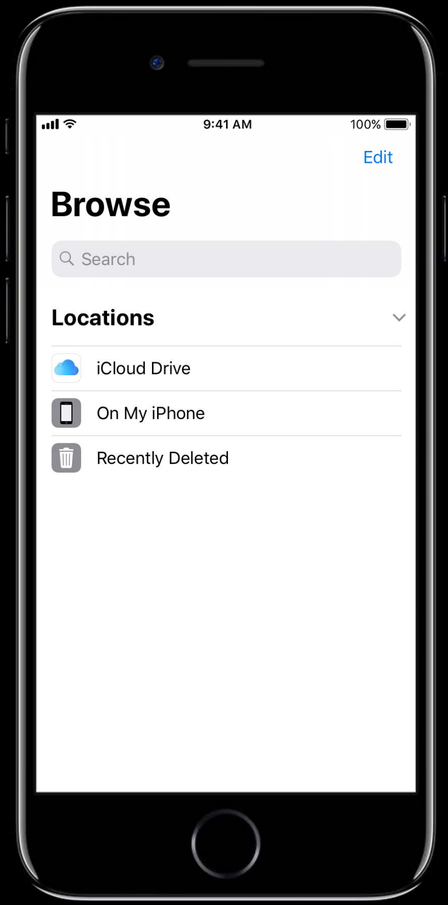
```
navigationItem.searchController
```



Integrated UISearchController with Navigation

```
navigationItem.searchController
```

```
navigationItem.hidesSearchBarWhenScrolling
```



UINavigationController and Scroll Interactions

UINavigationController and Scroll Interactions

UINavigationController is responsible for some features

UINavigationController and Scroll Interactions

UINavigationController is responsible for some features

- UISearchControllers
- Refresh controls
- Rubber banding

UIToolbar and UINavigationBar— Layout

UIToolbar and UINavigationBar— Layout

Extensive new Auto Layout support

UIToolbar and UINavigationBar— Layout

Extensive new Auto Layout support

Keep your constraints inside your views

UIToolbar and UINavigationBar— Layout

Extensive new Auto Layout support

Keep your constraints inside your views

“We assume you know what you’re doing“

Avoiding Zero-Sized Custom Views

Avoiding Zero-Sized Custom Views

UINavigationBar and UIToolbar provide position

Avoiding Zero-Sized Custom Views

UINavigationBar and UIToolbar provide position

You must provide size

Avoiding Zero-Sized Custom Views

UINavigationBar and UIToolbar provide position

You must provide size

- Constraints for width and height

Avoiding Zero-Sized Custom Views

UINavigationBar and UIToolbar provide position

You must provide size

- Constraints for width and height
- Implement `intrinsicContentSize`

Avoiding Zero-Sized Custom Views

UINavigationBar and UIToolbar provide position

You must provide size

- Constraints for width and height
- Implement `intrinsicContentSize`
- Connect your subviews via constraints

Demo

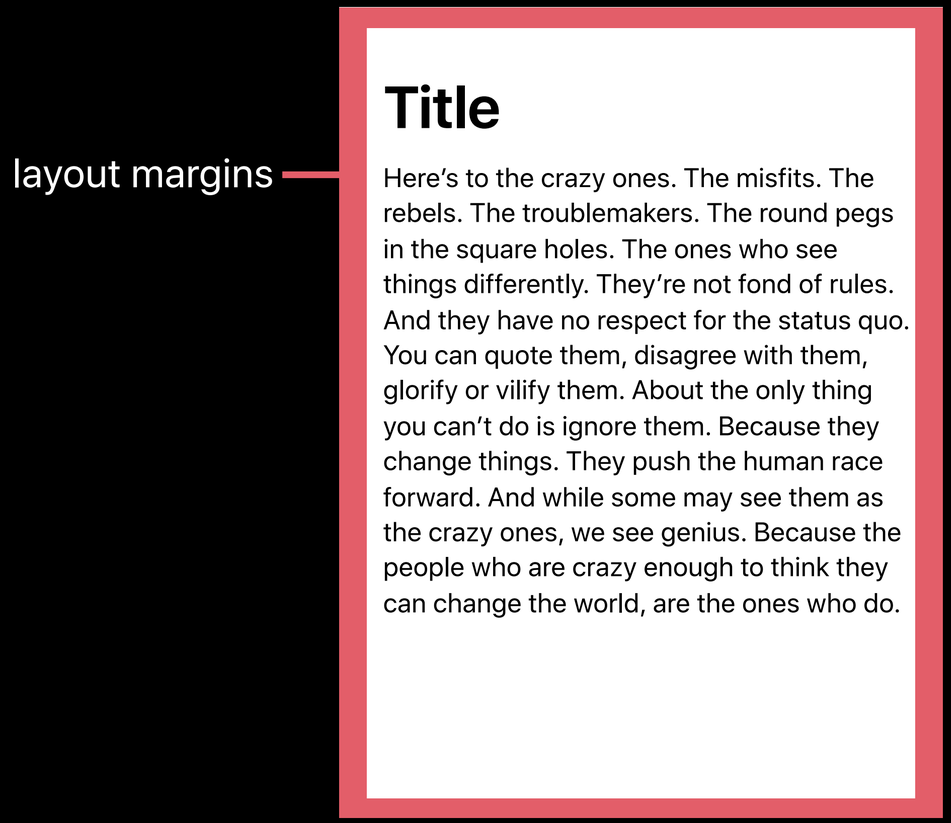
Raj Ramamurthy, iOS System Experience

Margins and Insets

Kyle Sluder, iOS System Experience

Title

Here’s to the crazy ones. The misfits. The rebels. The troublemakers. The round pegs in the square holes. The ones who see things differently. They’re not fond of rules. And they have no respect for the status quo. You can quote them, disagree with them, glorify or vilify them. About the only thing you can’t do is ignore them. Because they change things. They push the human race forward. And while some may see them as the crazy ones, we see genius. Because the people who are crazy enough to think they can change the world, are the ones who do.


layout margins
Title
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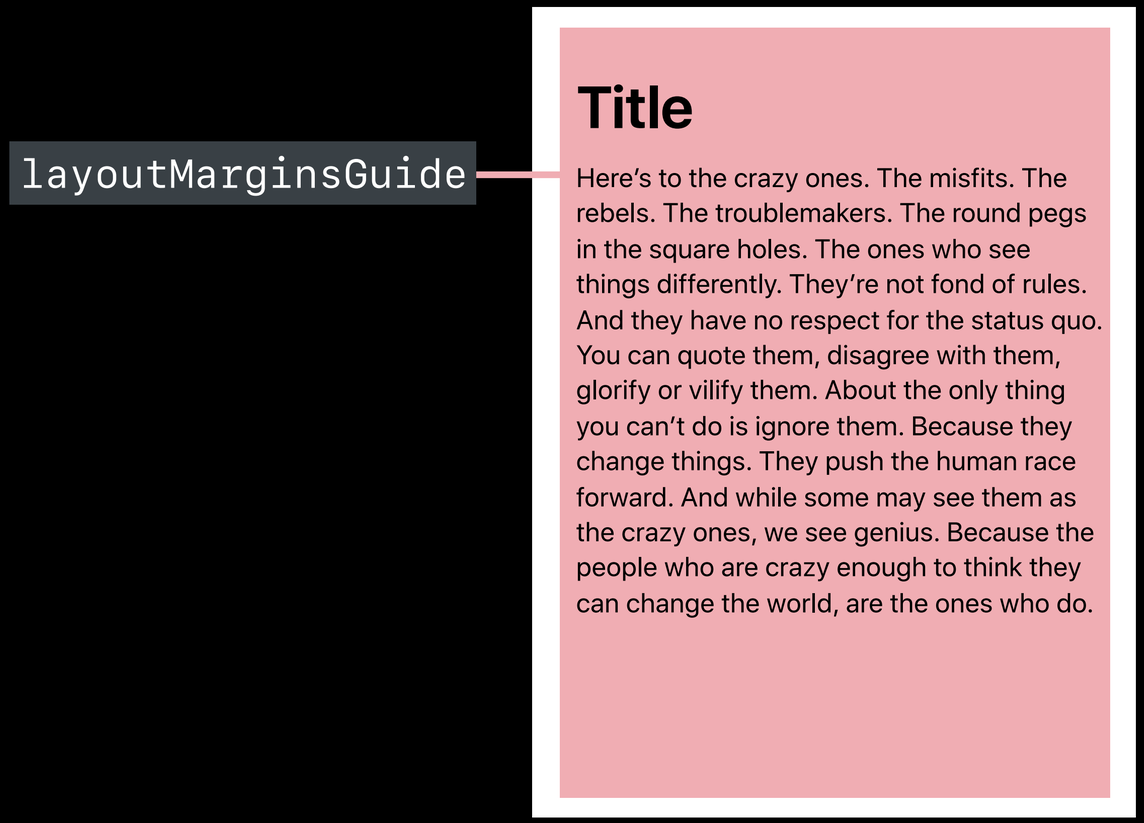
layoutMarginsGuide
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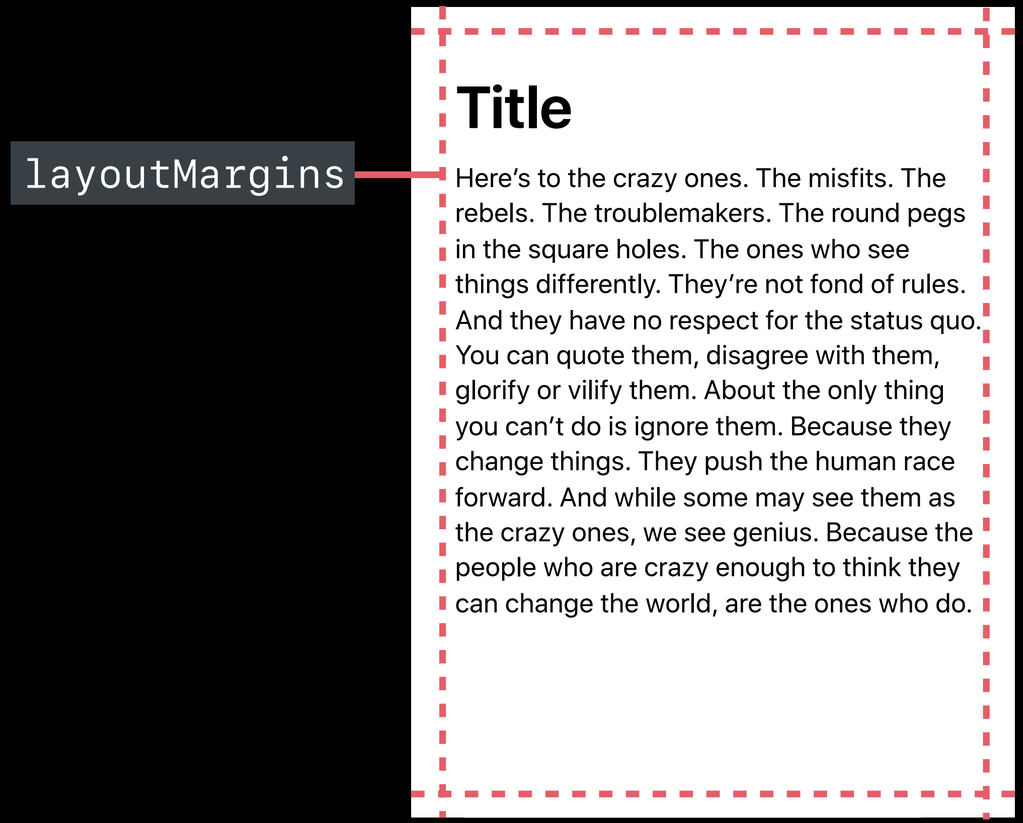
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NEW

layoutMargins
directionalLayoutMargins
Title
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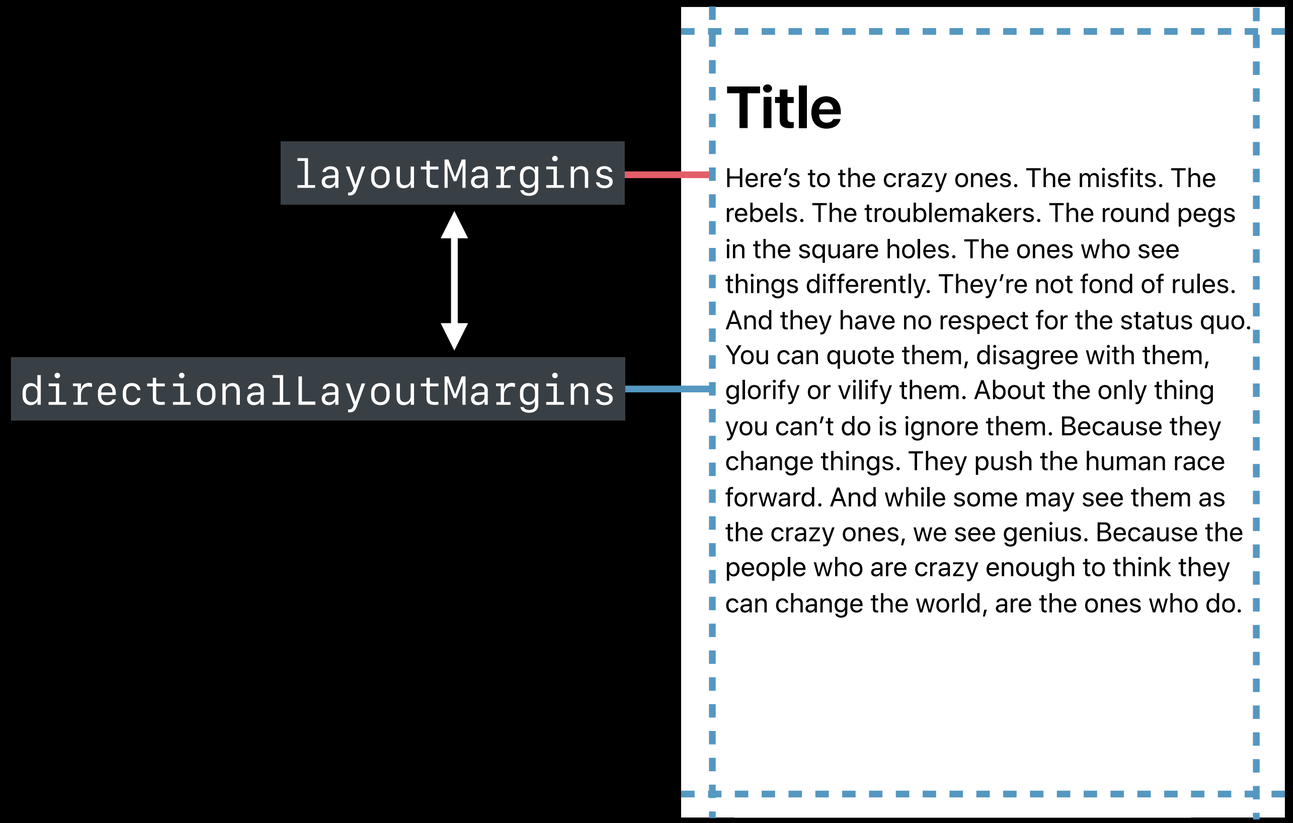
layoutMargins
directionalLayoutMargins
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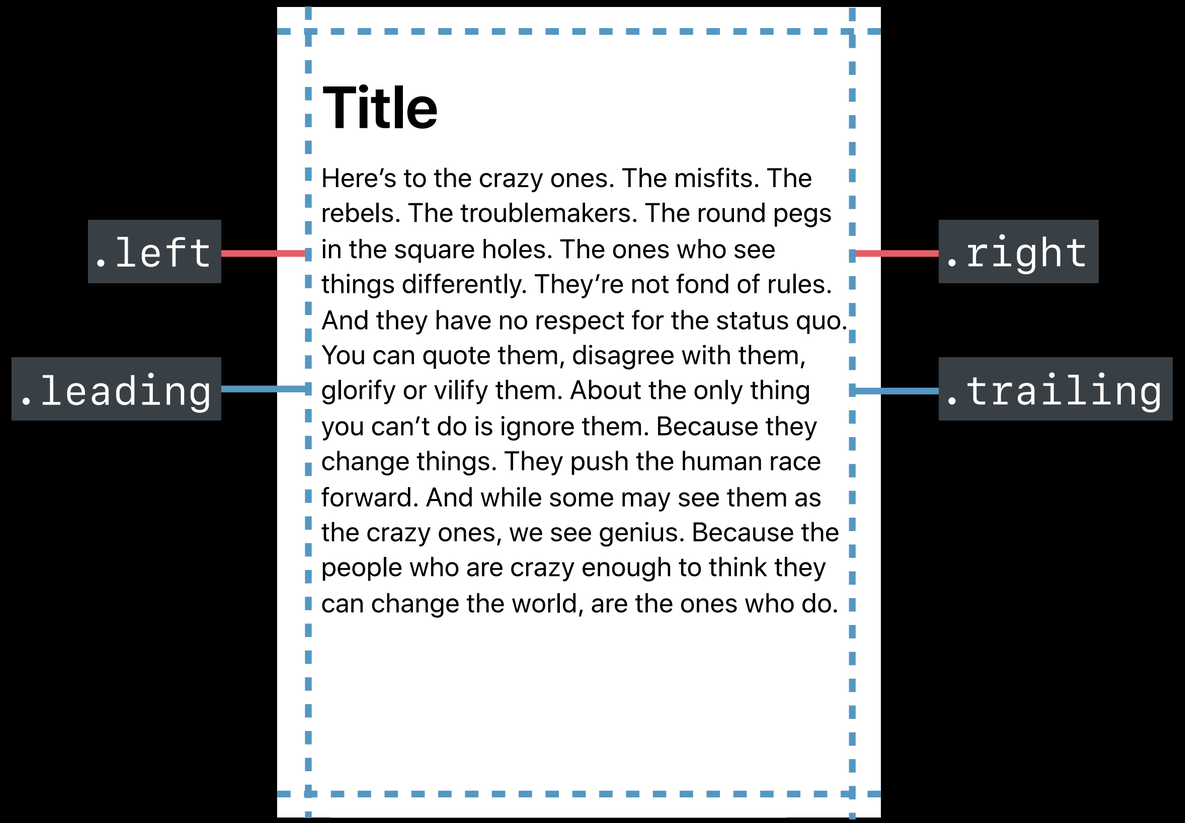
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.right
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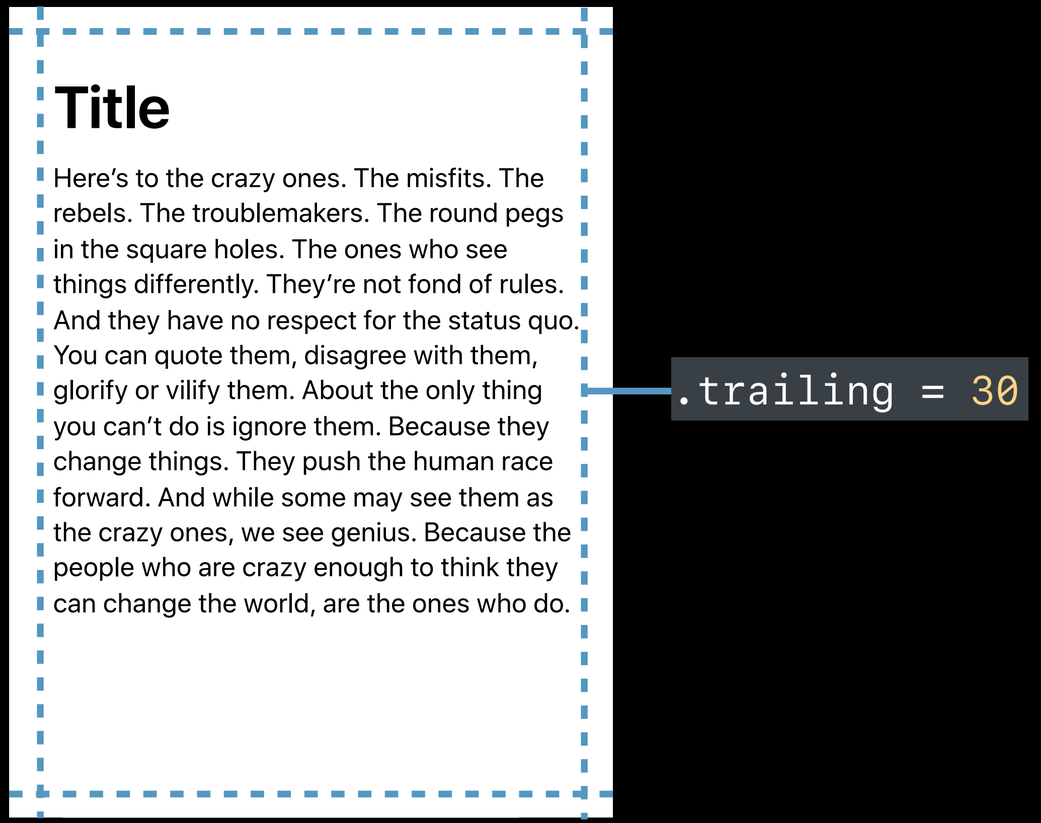
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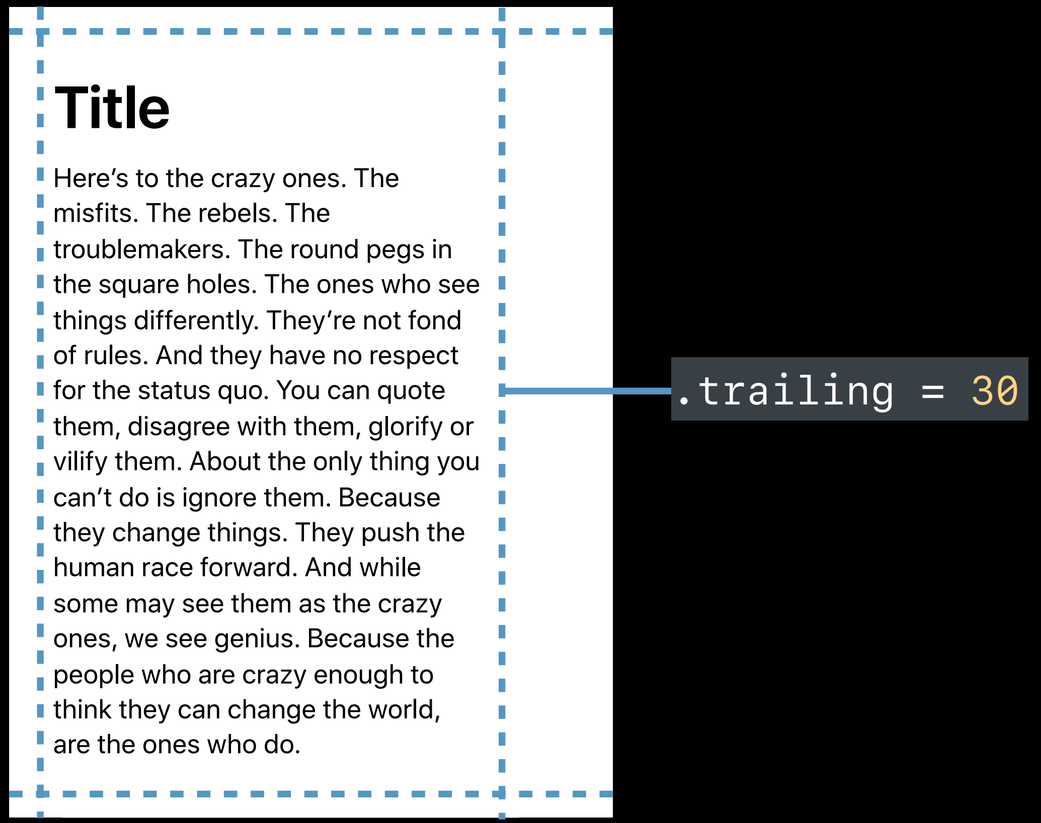
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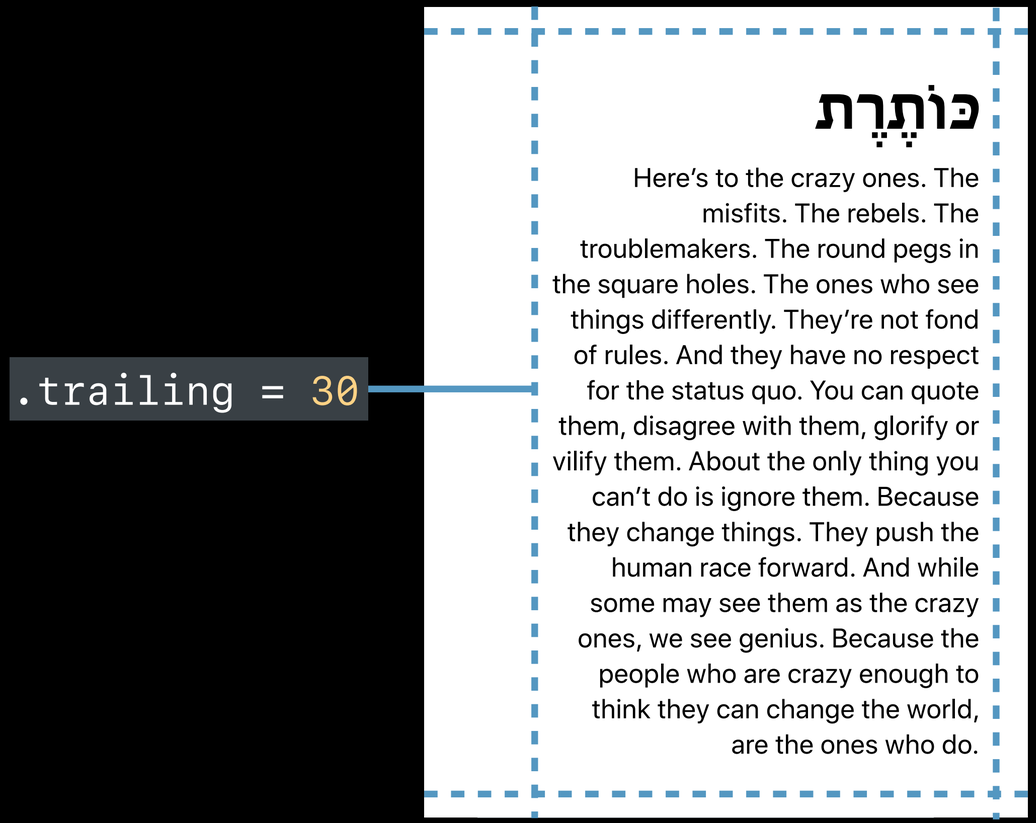
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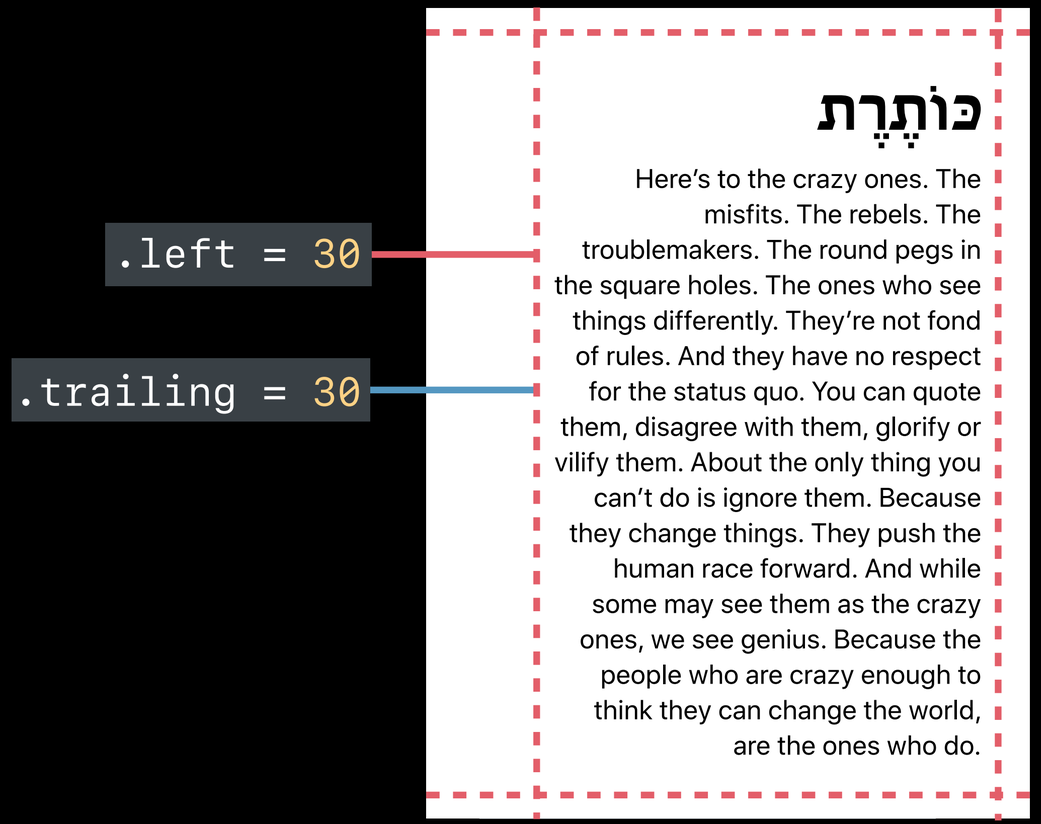
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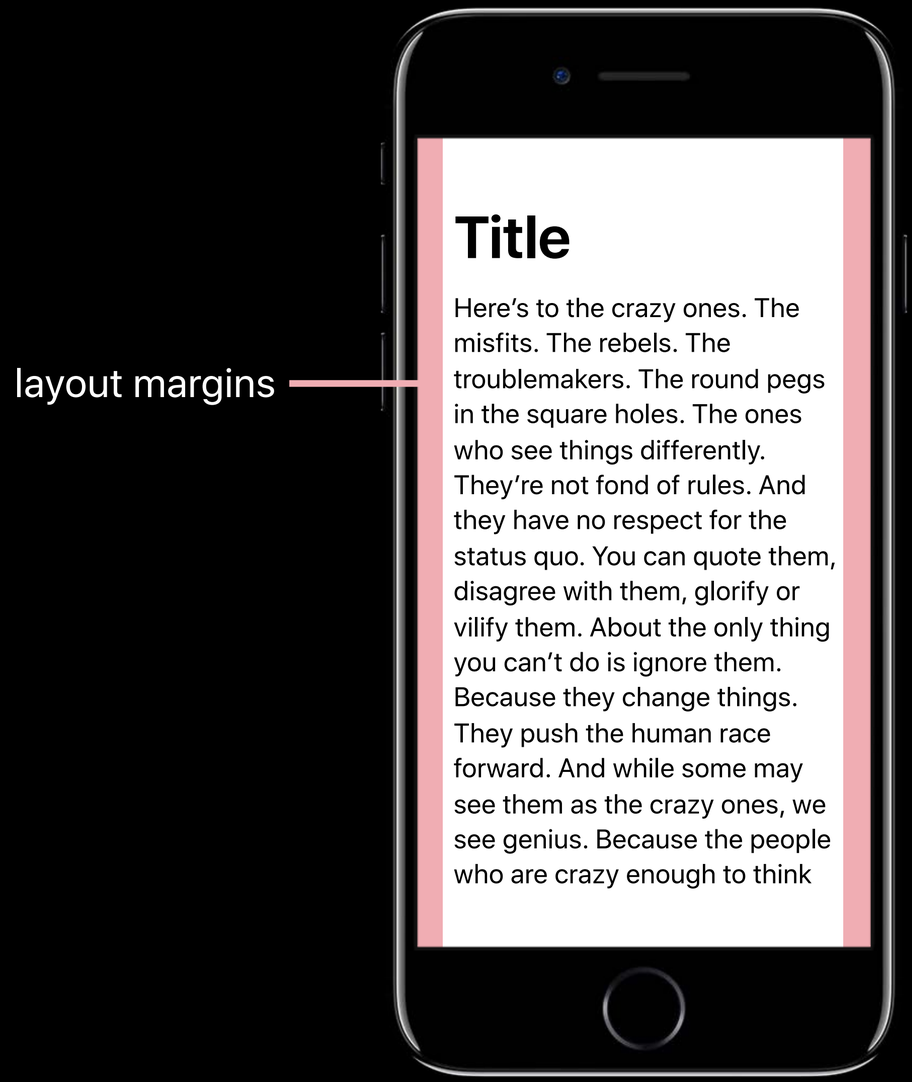
layout margins
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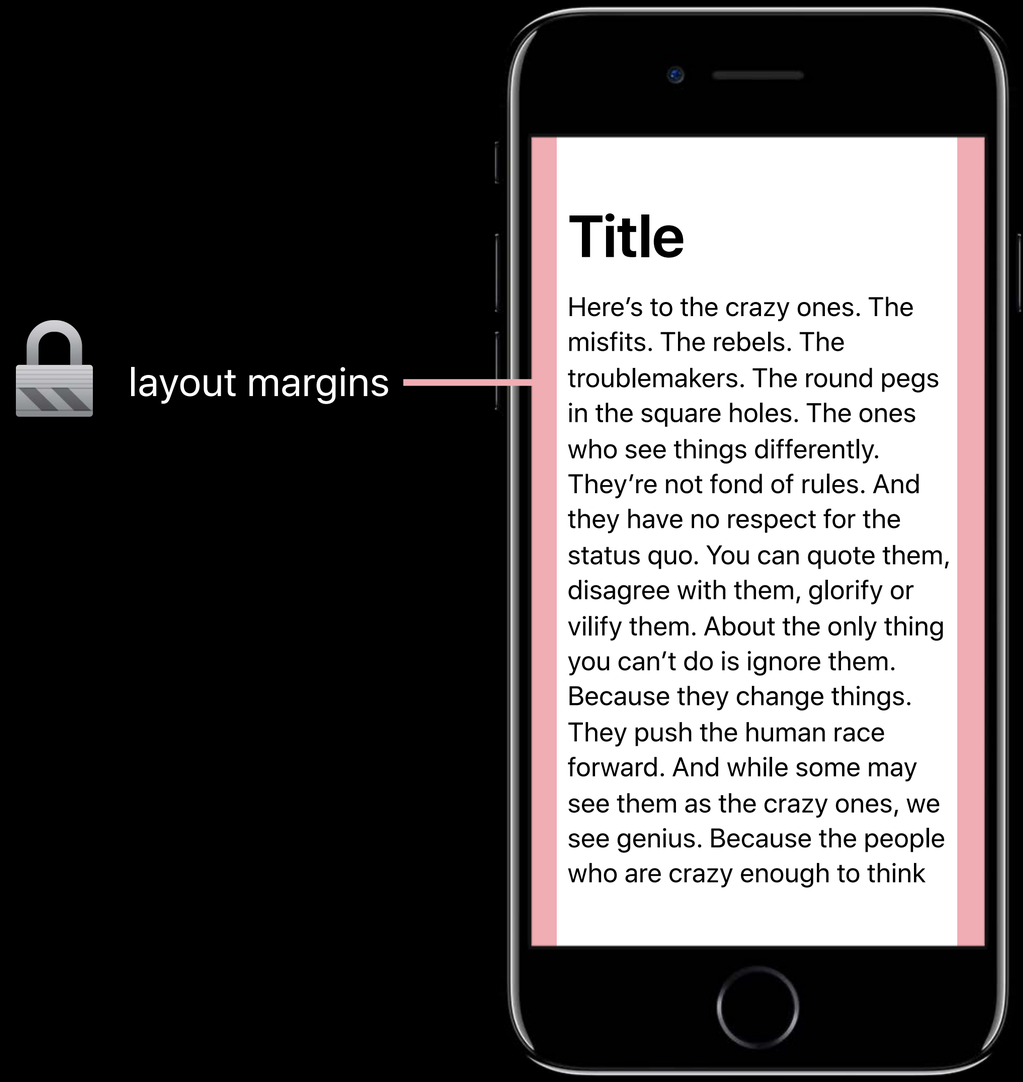
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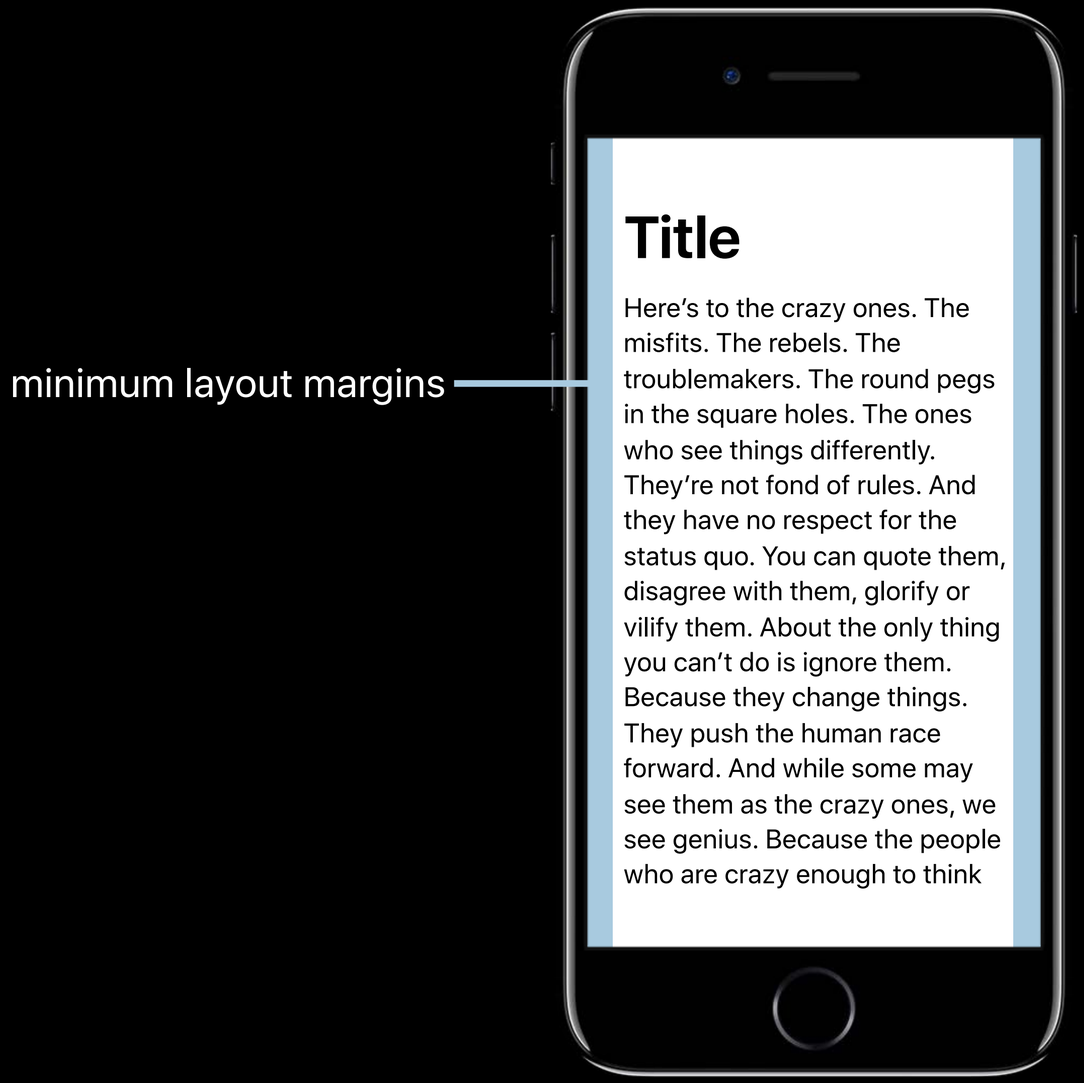
minimum layout margins
Title
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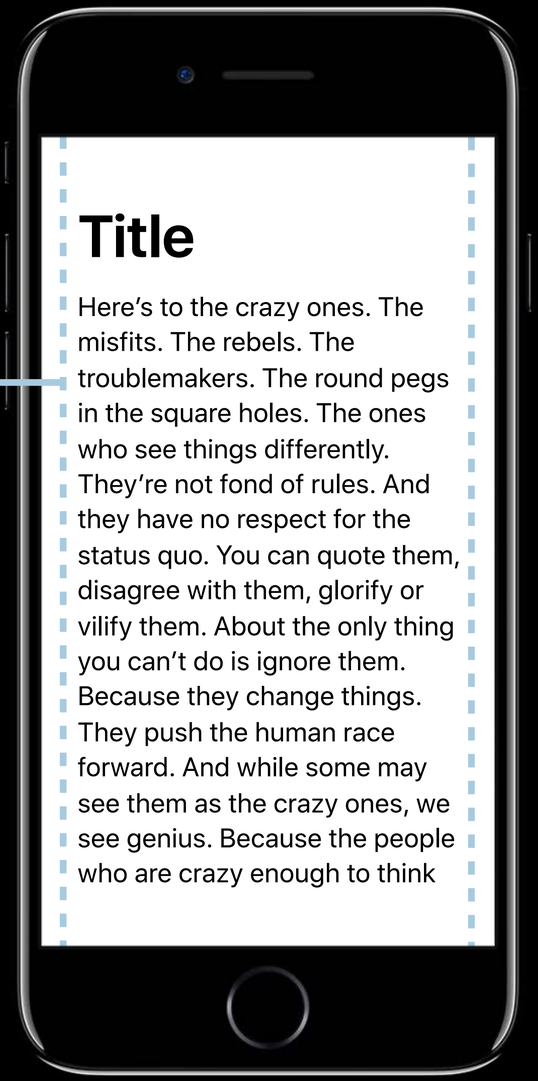
NEW

`systemMinimumLayoutMargins`



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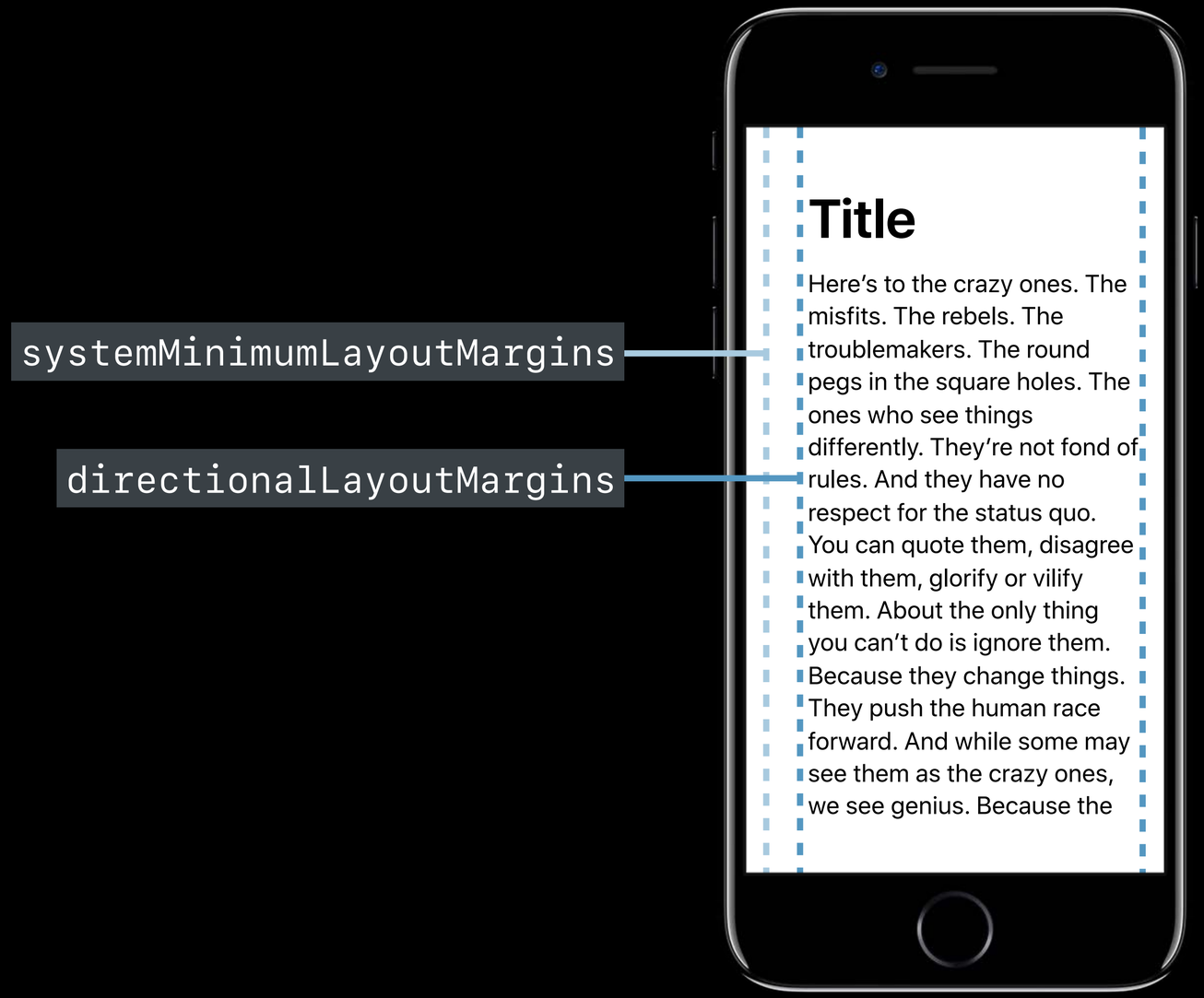
systemMinimumLayoutMargins
directionalLayoutMargins
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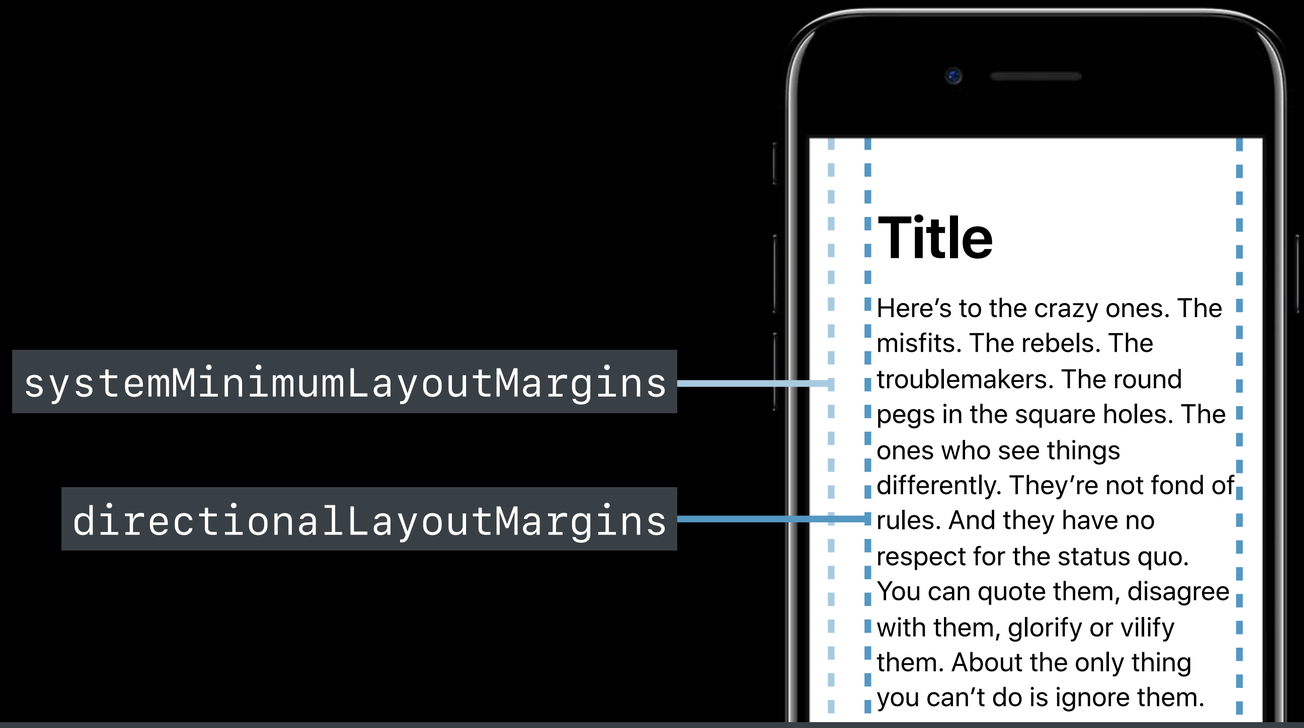
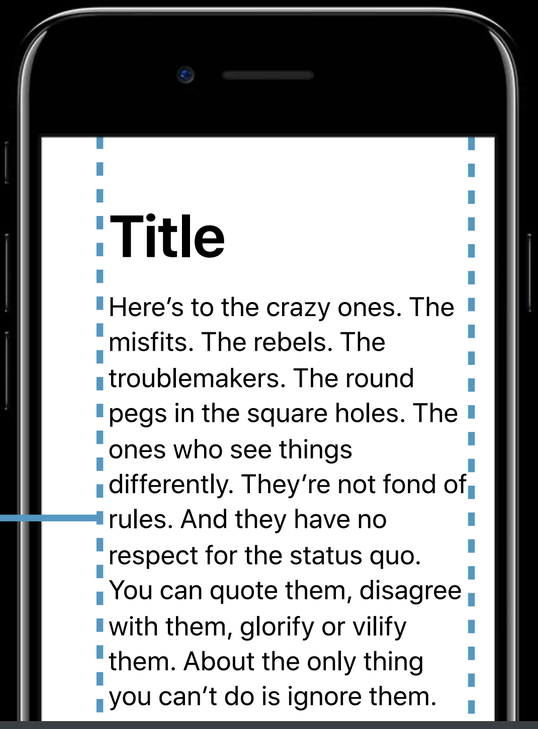



```
class MyViewController: UIViewController {
  override func viewDidLoad() {
    viewRespectsSystemMinimumLayoutMargins = true // default
  }
}
```

NEW

directionalLayoutMargins

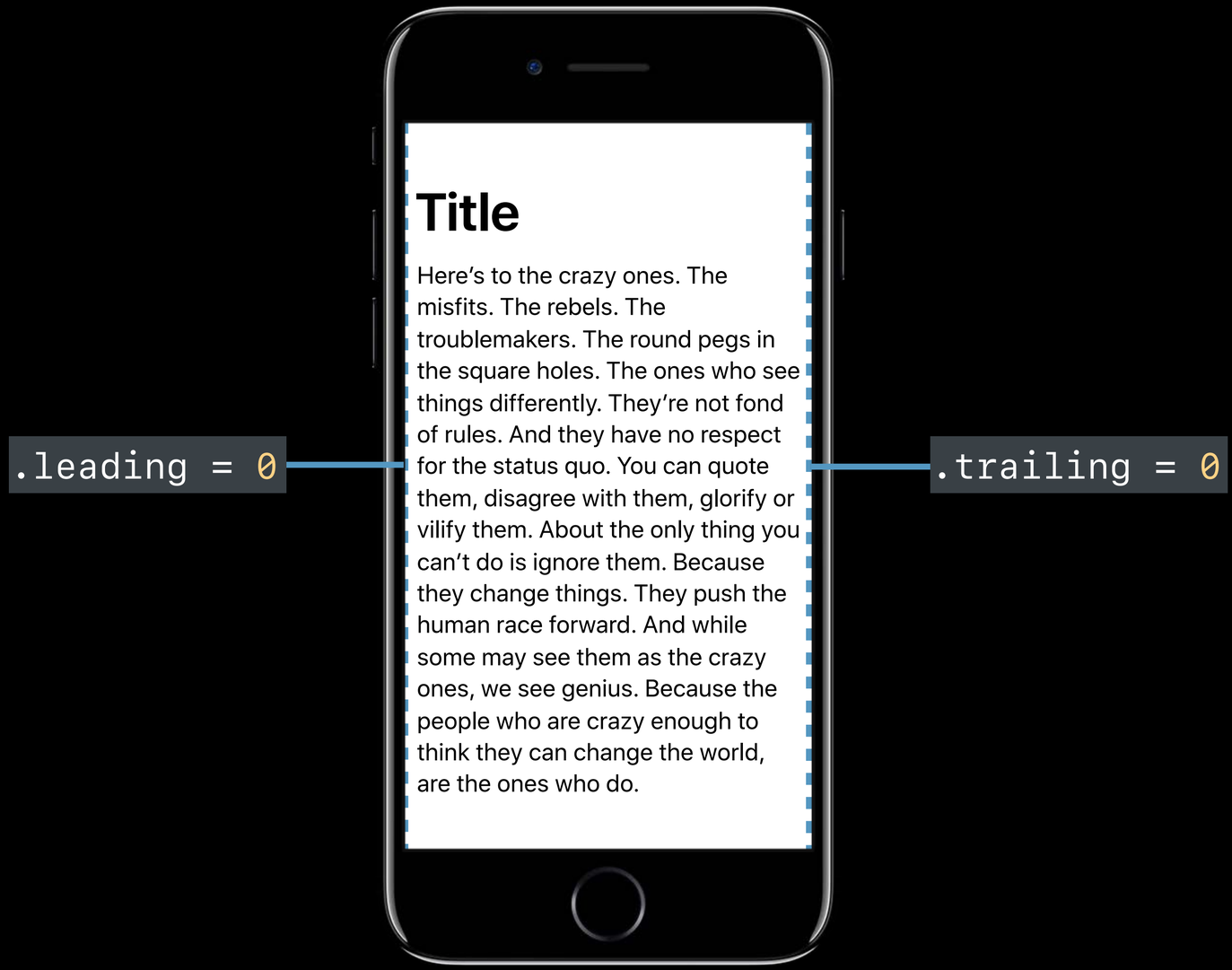



```
class MyViewController: UIViewController {
  override func viewDidLoad() {
    viewRespectsSystemMinimumLayoutMargins = false
  }
}
```

NEW

.leading = 0
Title
Here's to the crazy ones. The misfits. The rebels. The troublemakers. The round pegs in the square holes. The ones who see things differently. They're not fond of rules. And they have no respect for the status quo. You can quote them, disagree with them, glorify or vilify them. About the only thing you can't do is ignore them. Because they change things. They push the human race forward. And while some may see them as the crazy ones, we see genius. Because the
.trailing = 0

NEW


.leading = 0
Title
Here’s to the crazy ones. The misfits. The rebels. The troublemakers. The round pegs in the square holes. The ones who see things differently. They’re not fond of rules. And they have no respect for the status quo. You can quote them, disagree with them, glorify or vilify them. About the only thing you can’t do is ignore them. Because they change things. They push the human race forward. And while some may see them as the crazy ones, we see genius. Because the people who are crazy enough to think they can change the world, are the ones who do.
.trailing = 0

9:41 AM
100%
Albums
My Vacation
Select
My Vacation
Jan 26, 2016 – Feb 17, 2017
Photos
Memories
Albums

.top

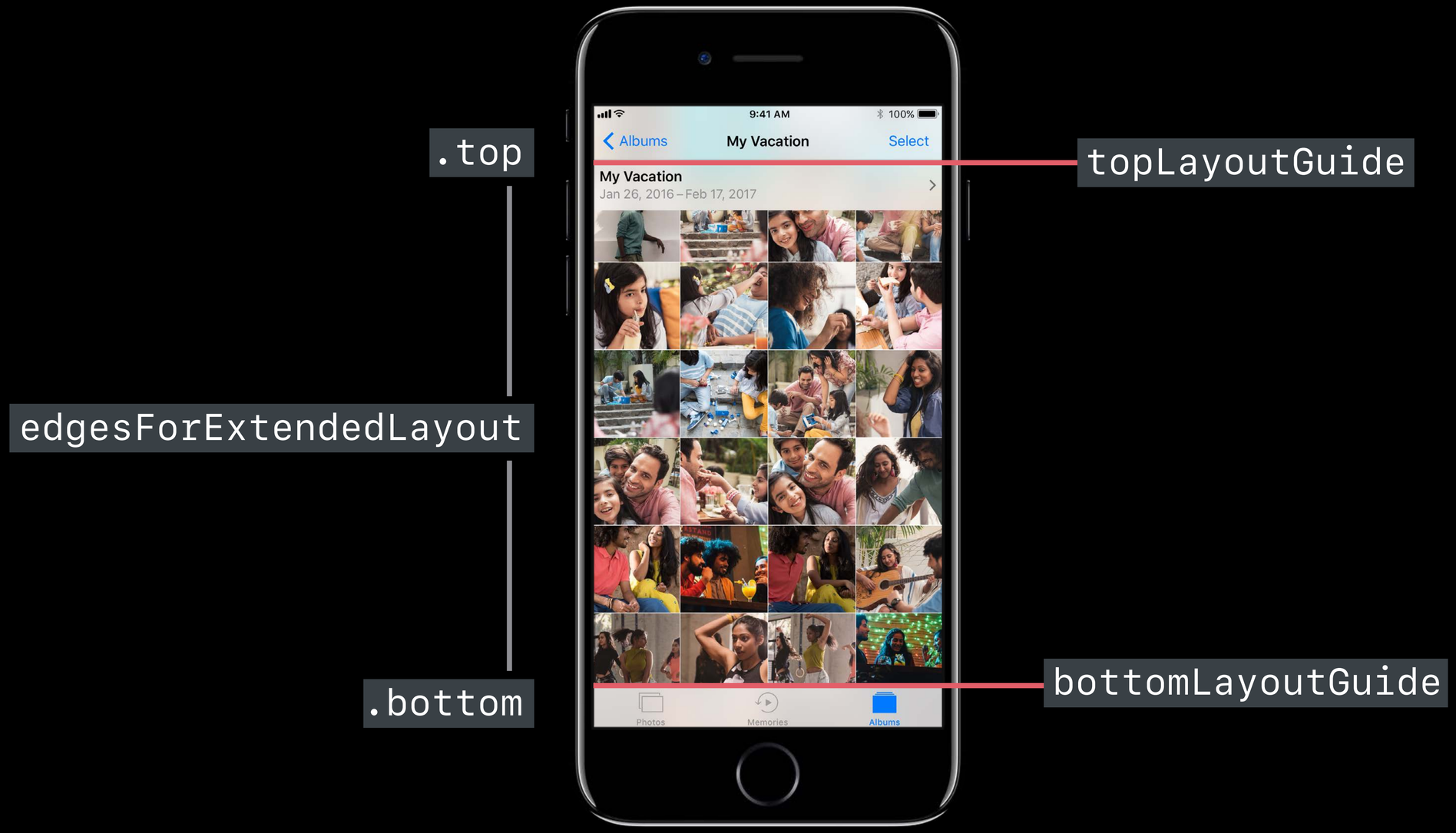
edgesForExtendedLayout

.bottom

.top

edgesForExtendedLayout

.bottom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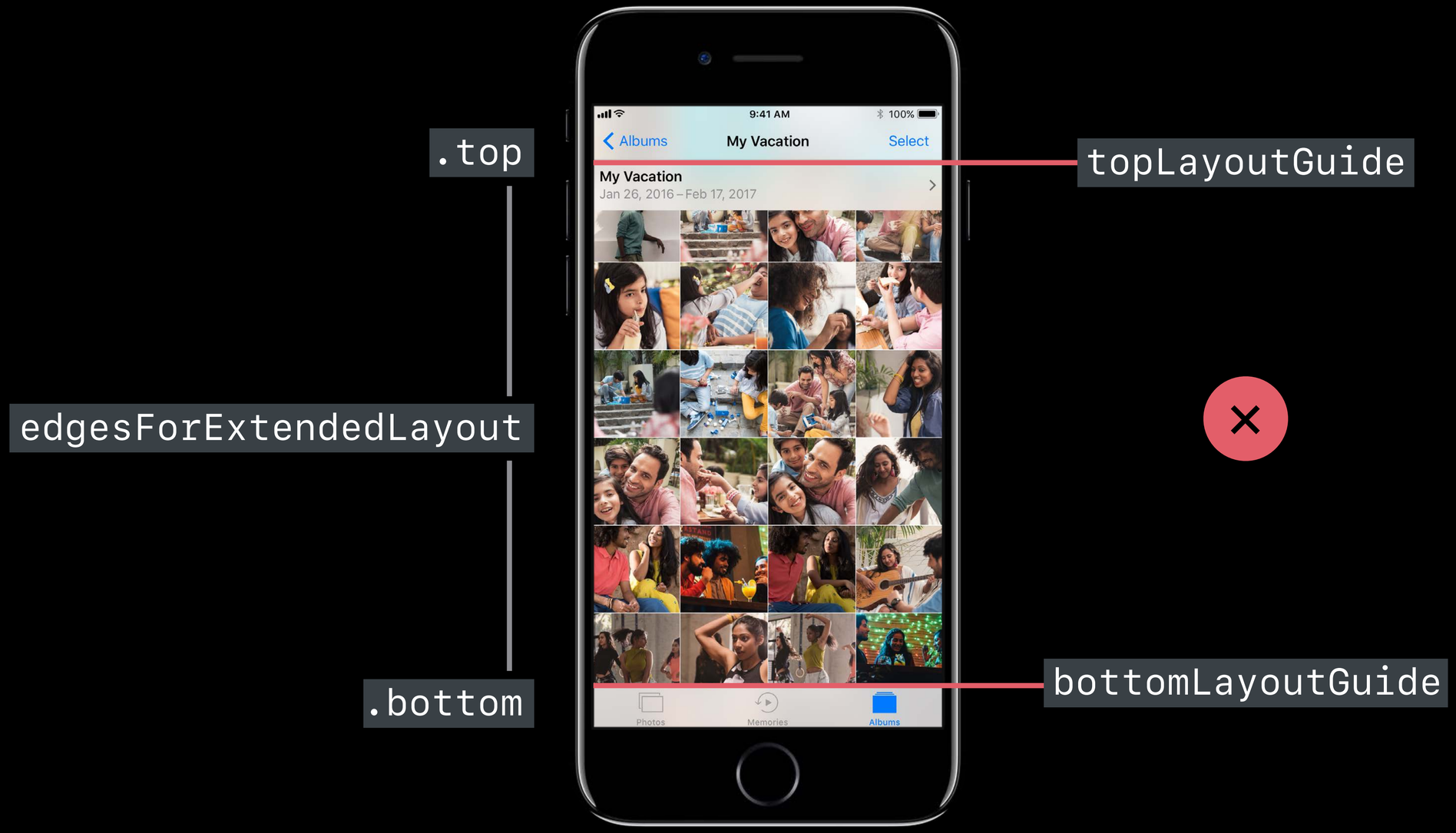
Albums
My Vacation
Select
My Vacation
Jan 26, 2016 – Feb 17, 2017
Photos
Memories
Albums
topLayoutGuide
bottomLayoutGuide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Select
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Photos
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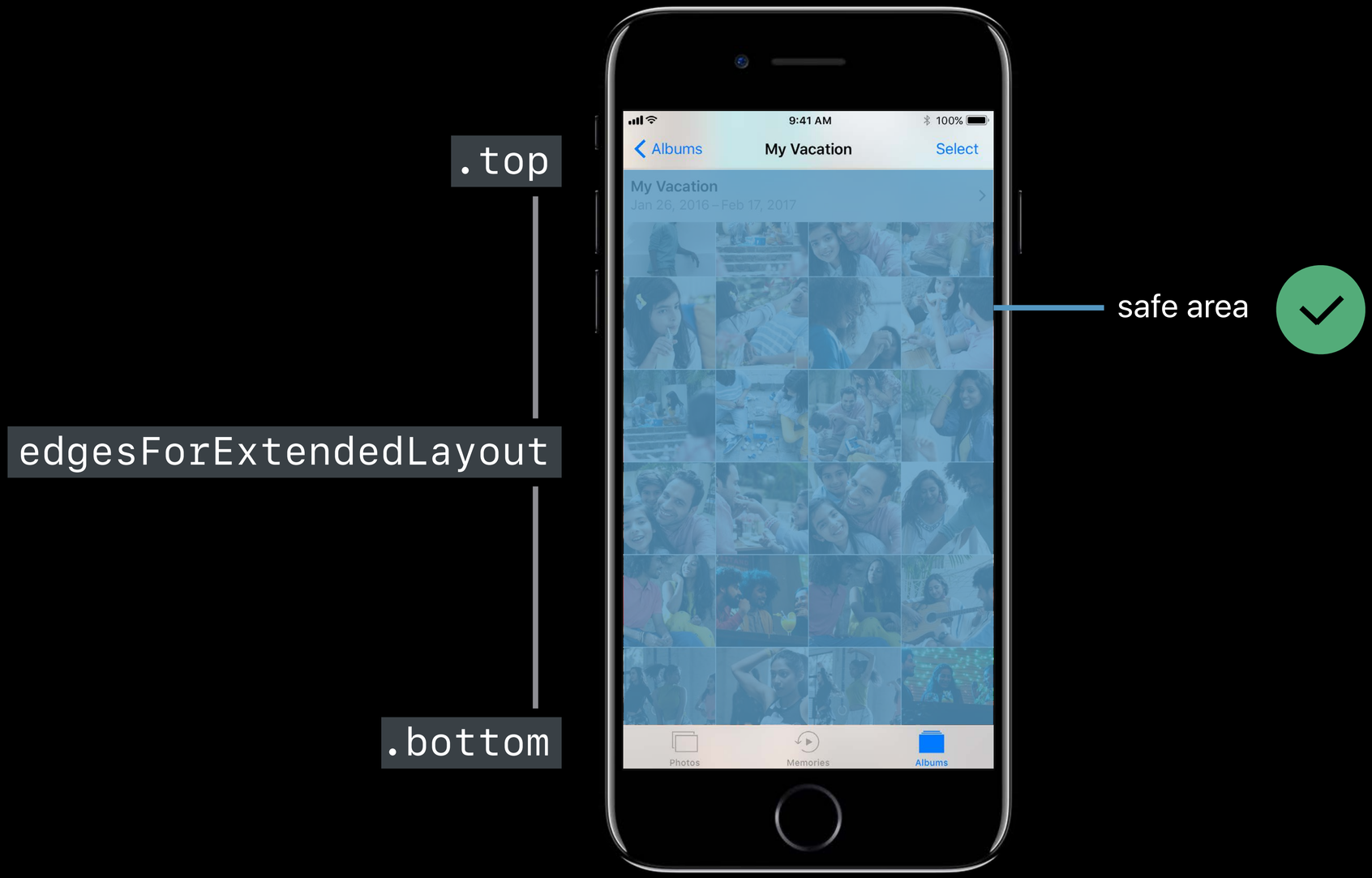
NEW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edgesForExtendedLayout
.bottom
9:41 AM
100%
Albums
My Vacation
Select
My Vacation
Jan 26, 2016 – Feb 17, 2017
Photos
Memories
Albums
safe area

Safe Area

NEW

Describes area of view not occluded by ancestors

Available as insets or layout guide

Incorporates overscan compensation insets

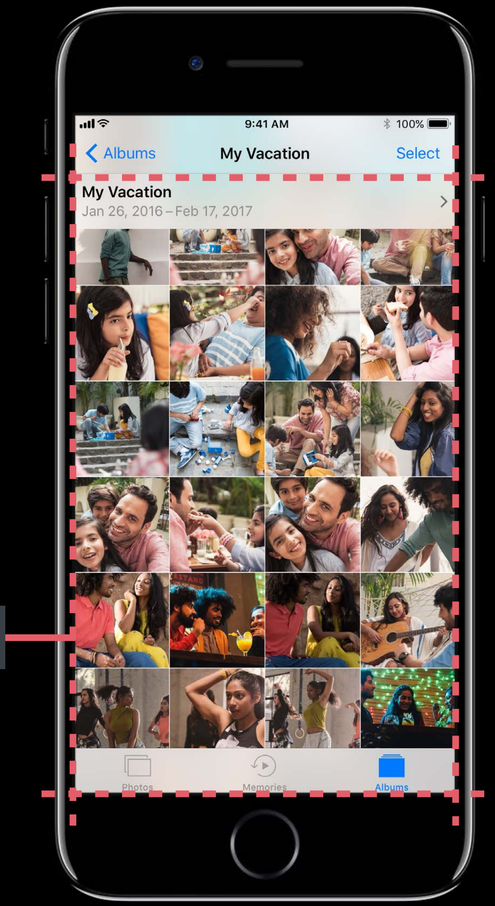
Safe Area

NEW

Describes area of view not occluded by ancestors

Available as insets or layout guide

Incorporates overscan compensation insets



`UIView.safeAreaInsets`

Safe Area

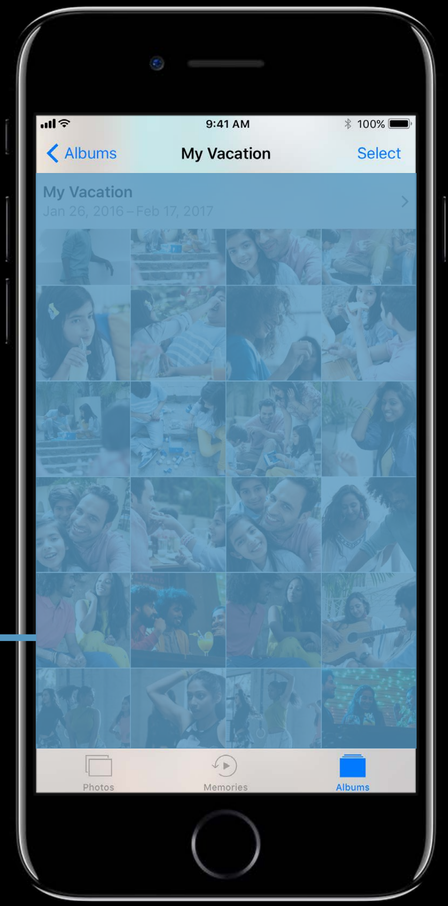
NEW

Describes area of view not occluded by ancestors

Available as insets or layout guide

Incorporates overscan compensation insets

`UIView.safeAreaLayoutGuide`



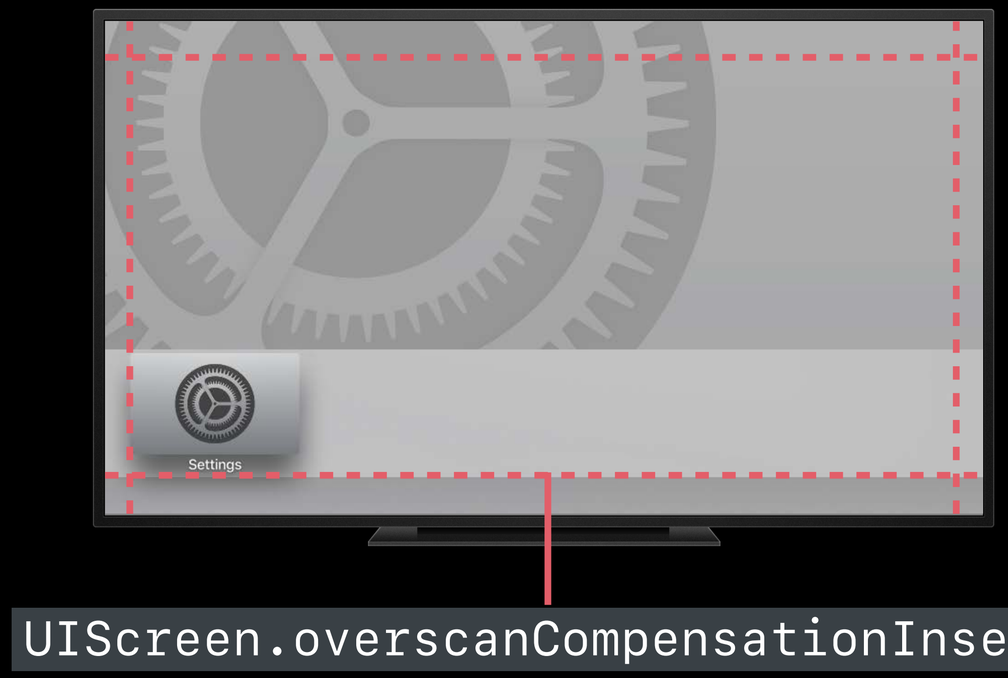
Safe Area

NEW

Describes area of view not occluded by ancestors

Available as insets or layout guide

Incorporates overscan compensation insets



Extending the Safe Area Insets

NEW

`UIViewController.additionalSafeAreaInsets`

`UIView.safeAreaInsetsDidChange()`

`UIViewController.viewSafeAreaInsetsDidChange()`

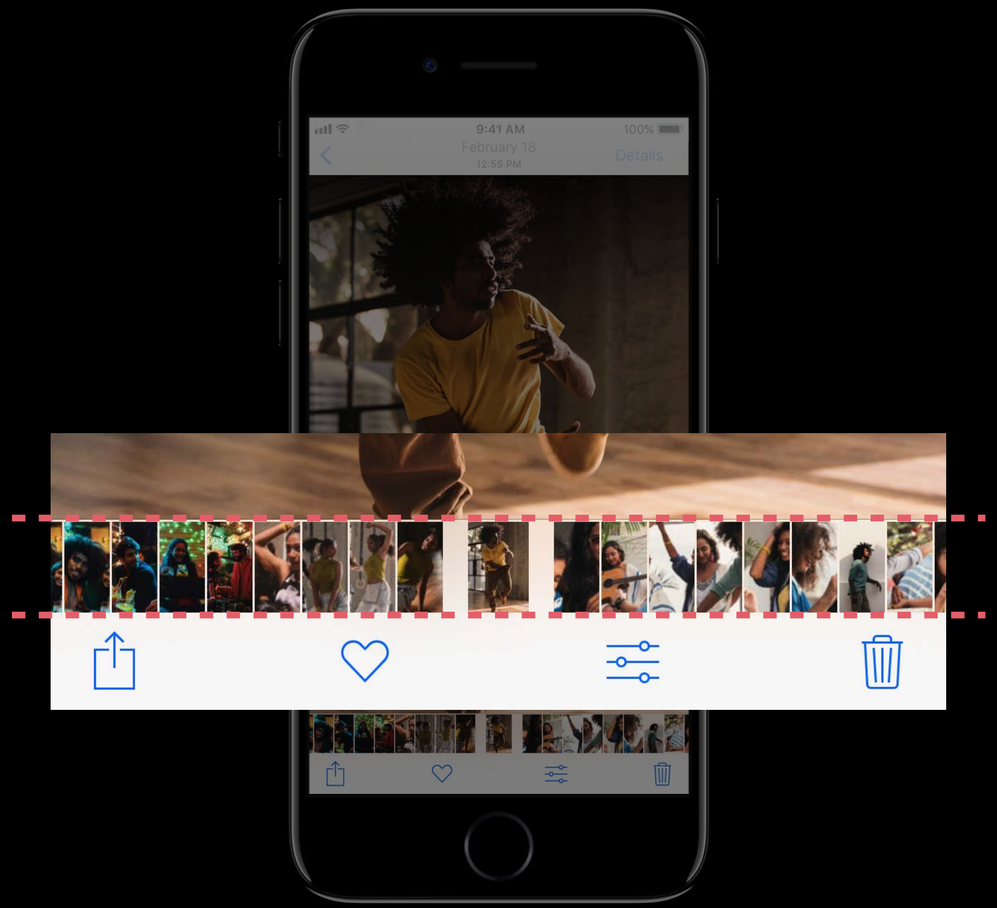
Extending the Safe Area Insets

NEW

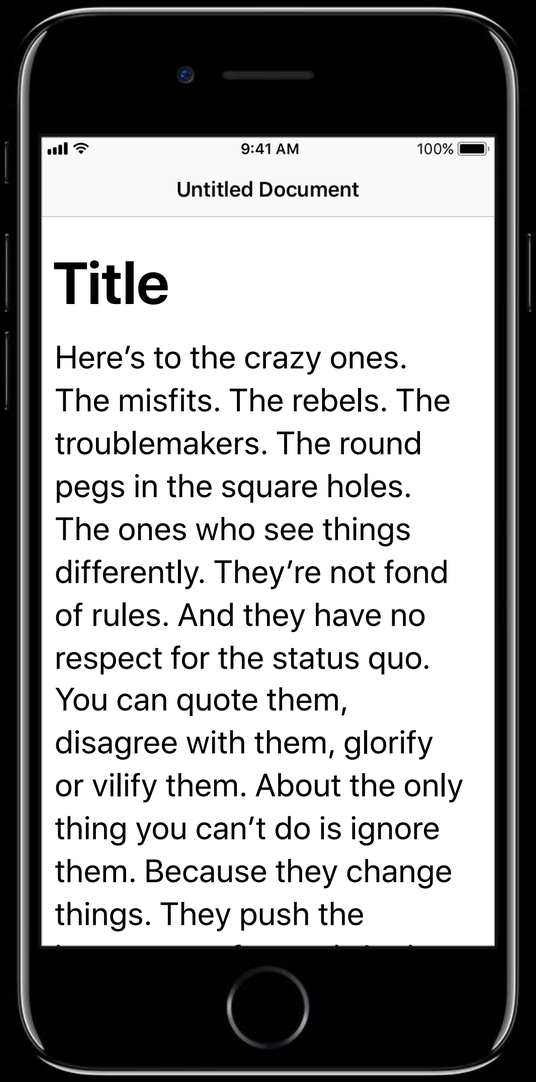
```
UIViewController.additionalSafeAreaInsets
```

```
UIView.safeAreaInsetsDidChange()
```

```
UIViewController.viewSafeAreaInsetsDidChange()
```



Scroll Views


9:41 AM
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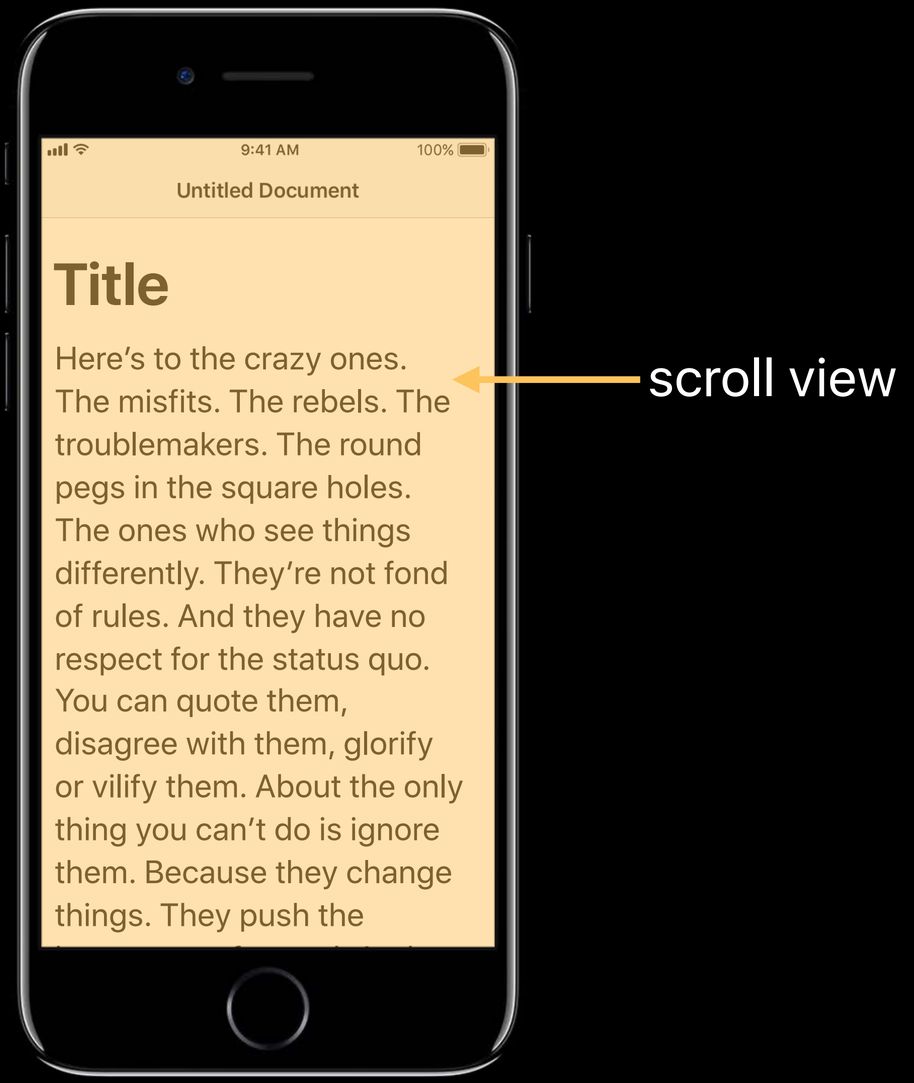
Untitled Document
Title
Here’s to the crazy ones. The misfits. The rebels. The troublemakers. The round pegs in the square holes. The ones who see things differently. They’re not fond of rules. And they have no respect for the status quo. You can quote them, disagree with them, glorify or vilify them. About the only thing you can’t do is ignore them. Because they change things. They push the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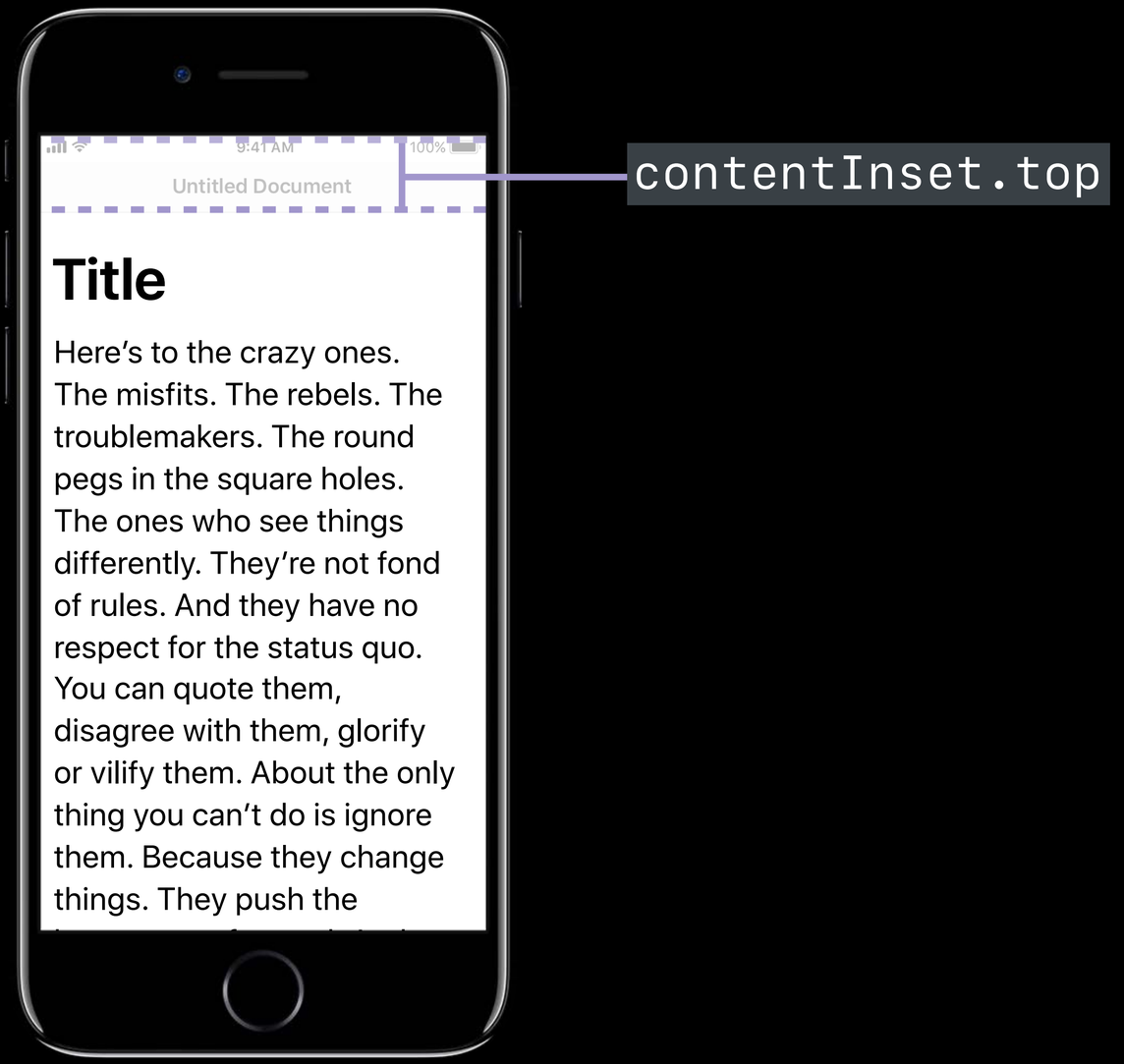
scroll view


9:41 AM
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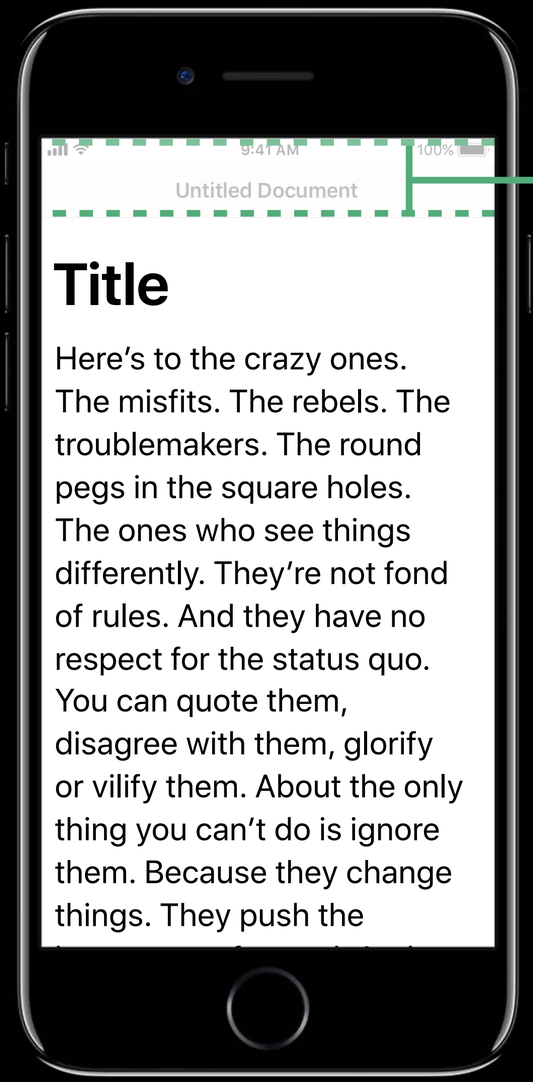
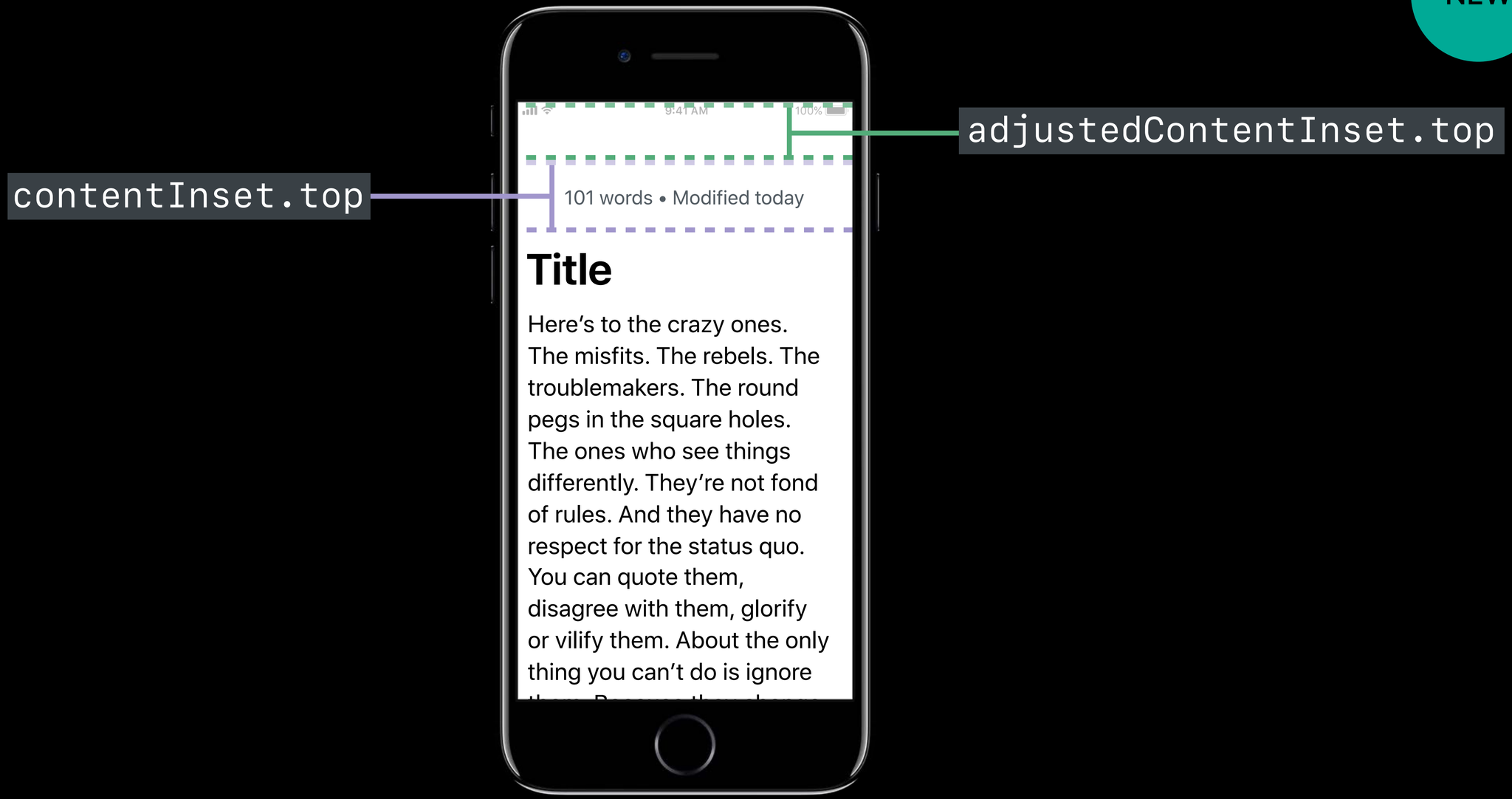
Untitled Document
contentInset.top
Title
Here’s to the crazy ones. The misfits. The rebels. The troublemakers. The round pegs in the square holes. The ones who see things differently. They’re not fond of rules. And they have no respect for the status quo. You can quote them, disagree with them, glorify or vilify them. About the only thing you can’t do is ignore them. Because they change things. They push the

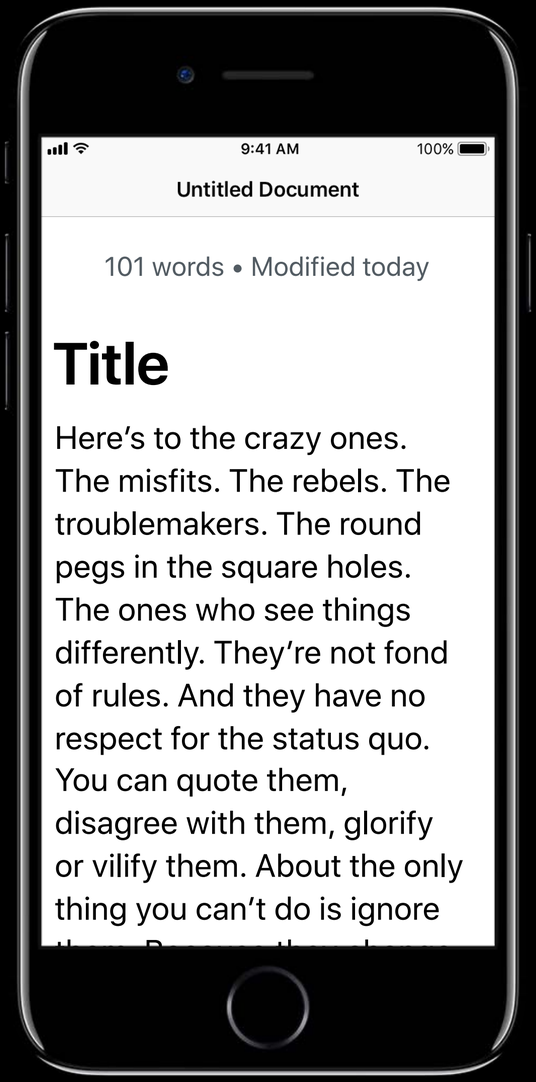
NEW



`adjustedContentInset.top`

NEW


adjustedContentInset.top
contentInset.top
9:41 AM
100%
101 words • Modified today
Title
Here’s to the crazy ones. The misfits. The rebels. The troublemakers. The round pegs in the square holes. The ones who see things differently. They’re not fond of rules. And they have no respect for the status quo. You can quote them, disagree with them, glorify or vilify them. About the only thing you can’t do is ignore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Title
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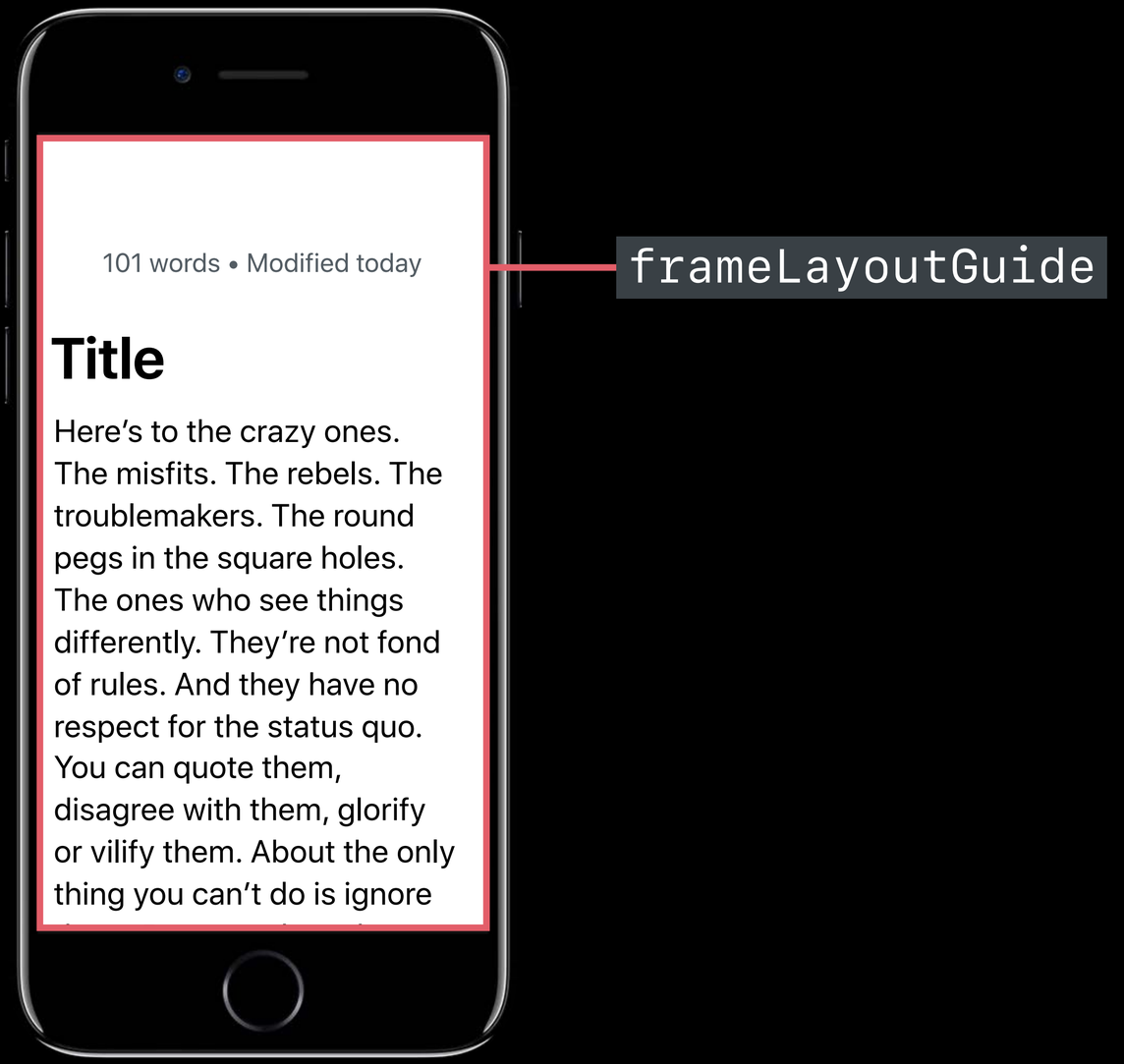
NEW


101 words • Modified today
Title
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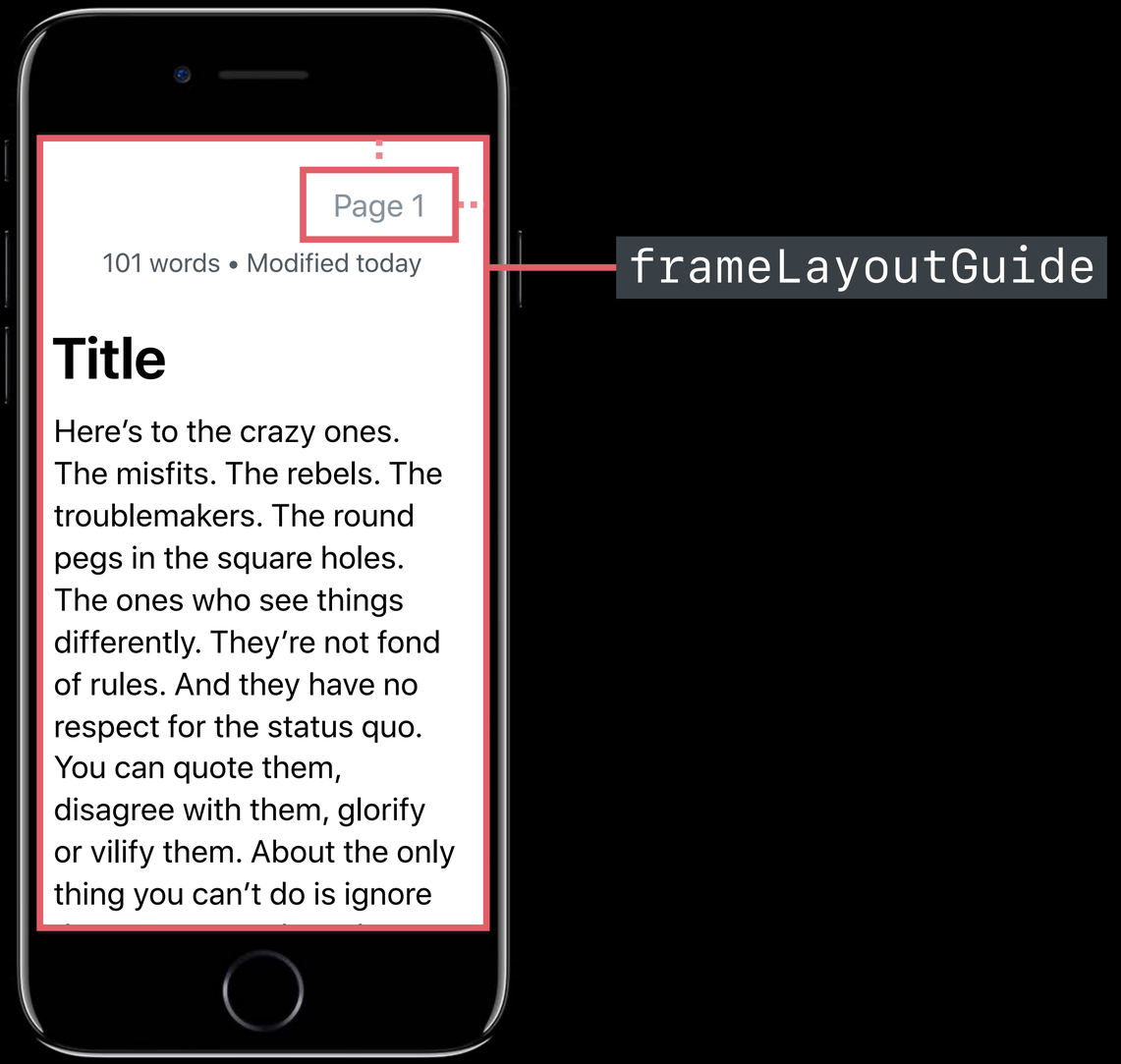
frameLayoutGuide

NEW


Page 1
101 words • Modified today
Title
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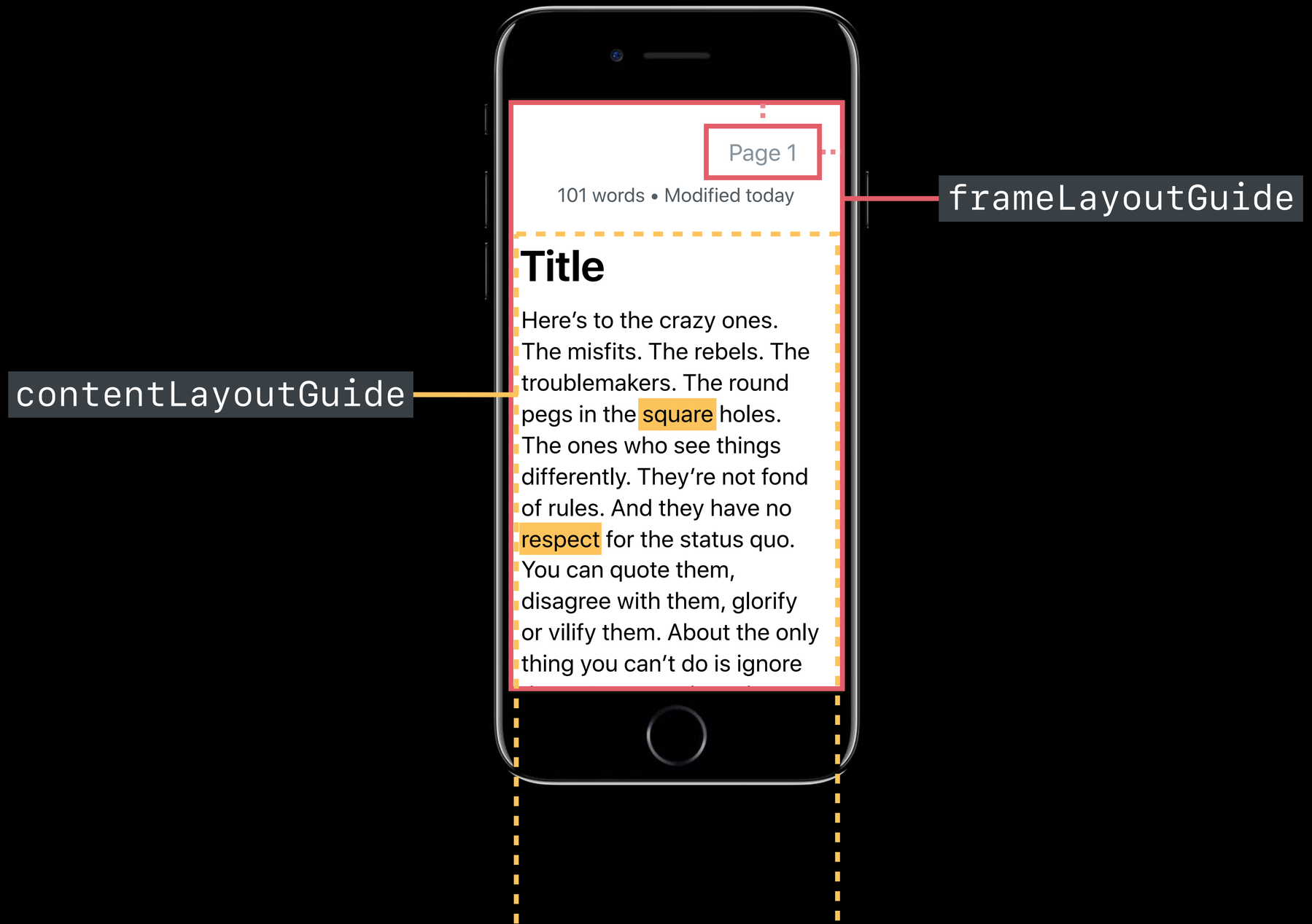
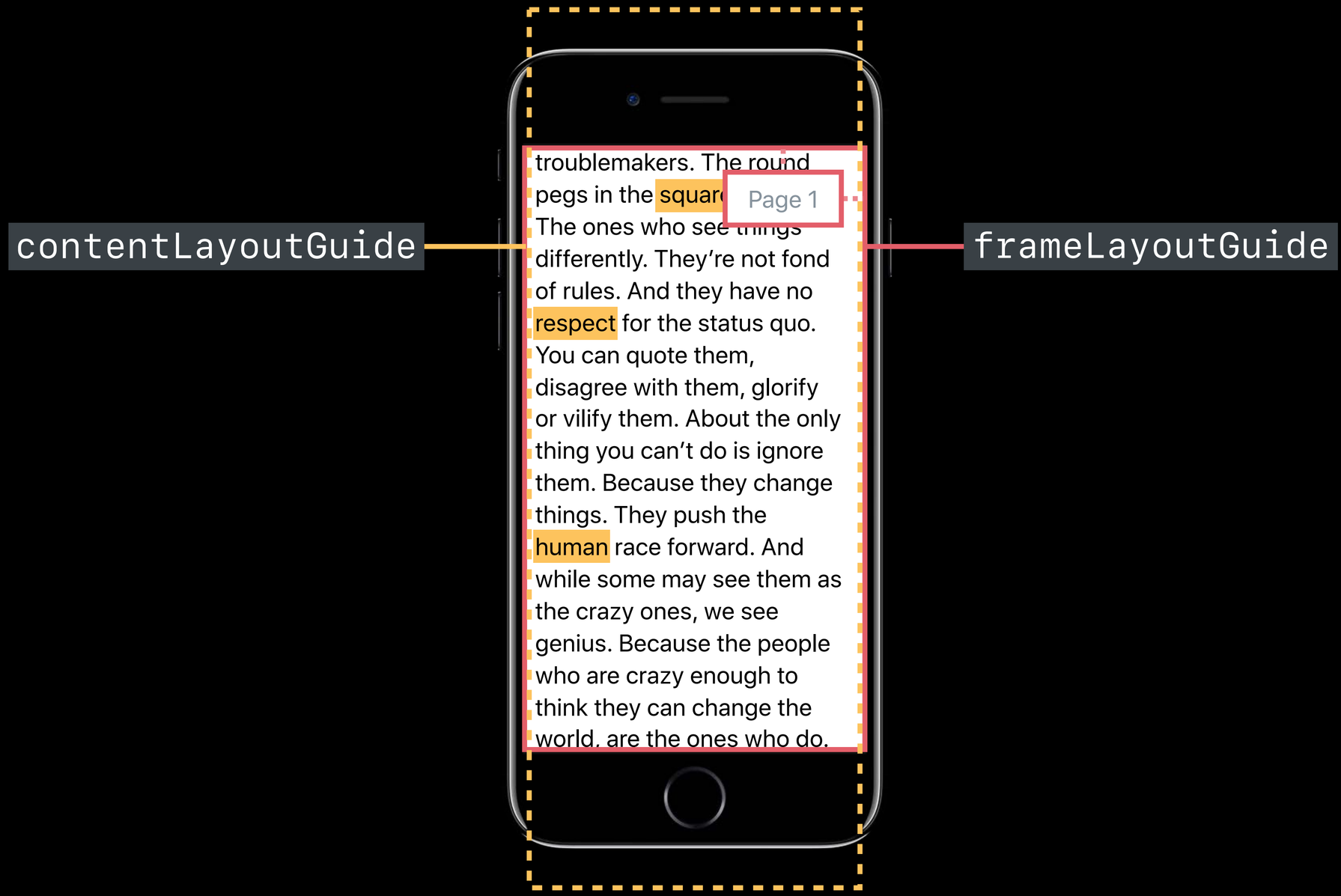
frameLayoutGuide

NEW


Page 1
101 words • Modified today
Title
Here's to the crazy ones. The misfits. The rebels. The troublemakers. The round pegs in the square holes. The ones who see things differently. They're not fond of rules. And they have no respect for the status quo. You can quote them, disagree with them, glorify or vilify them. About the only thing you can't do is ignore
frameLayoutGuide
contentLayoutGuide

NEW


contentLayoutGuide
troublemakers. The round
pegs in the squar
Page 1
The ones who see things
differently. They're not fond
of rules. And they have no
respect for the status quo.
You can quote them,
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world, are the ones who do.
frameLayoutGuide

Table Views

Self-Sizing by Default

NEW

Link on iOS 11, all estimated heights default to `UITableViewAutomaticDimension`

Headers, footers, and cells use self-sizing by default

iOS only—behavior is not changed on tvOS

Ensure all views have sufficient internal constraints

Return fixed sizes from delegate methods

Opting Out of New Behavior

NEW

Set table view estimated height properties to zero

Also disables self-sizing

```
override func viewDidLoad() {
    tableView.estimatedRowHeight = 0
    tableView.estimatedSectionHeaderHeight = 0
    tableView.estimatedSectionFooterHeight = 0
}
```

Opting Out of New Behavior

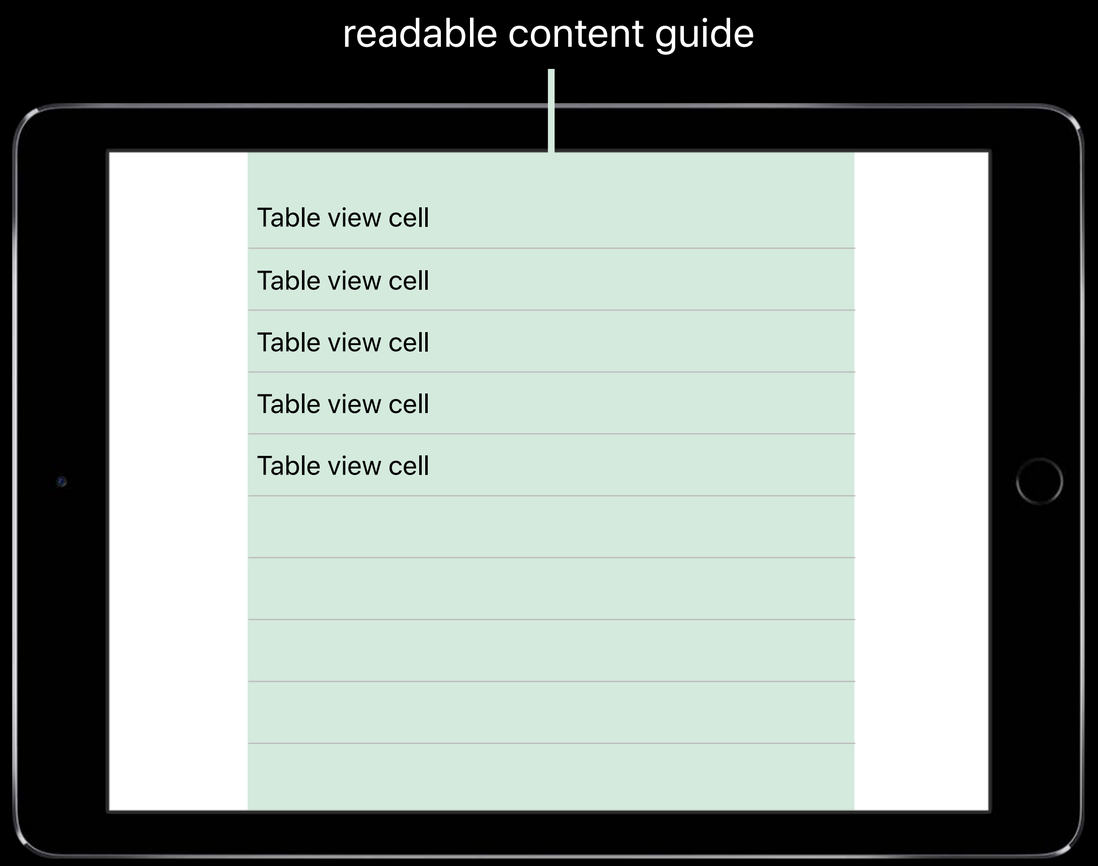
NEW

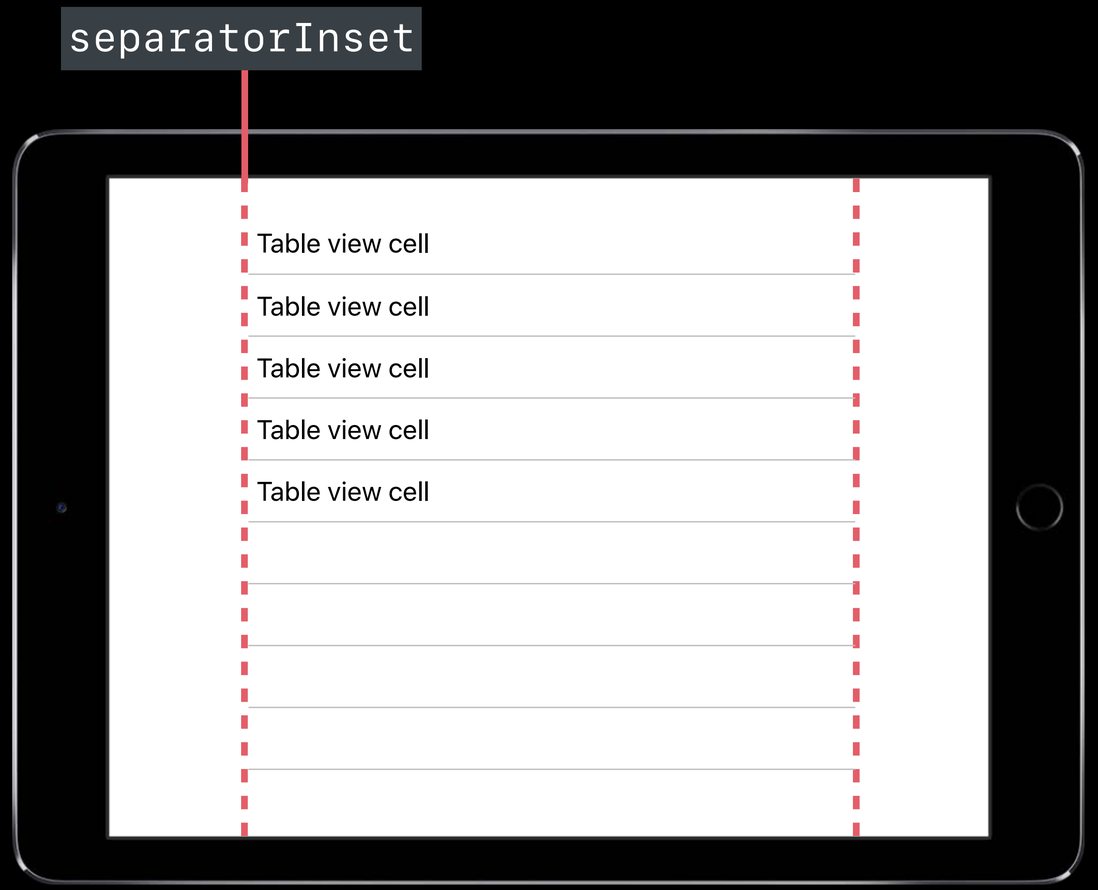
Set table view estimated height properties to zero

Also disables self-sizing

```
override func viewDidLoad() {
    tableView.estimatedRowHeight = 0
    tableView.estimatedSectionHeaderHeight = 0
    tableView.estimatedSectionFooterHeight = 0
}
```

Table view cell
Table view cell
Table view cell
Table view cell
Table view cell

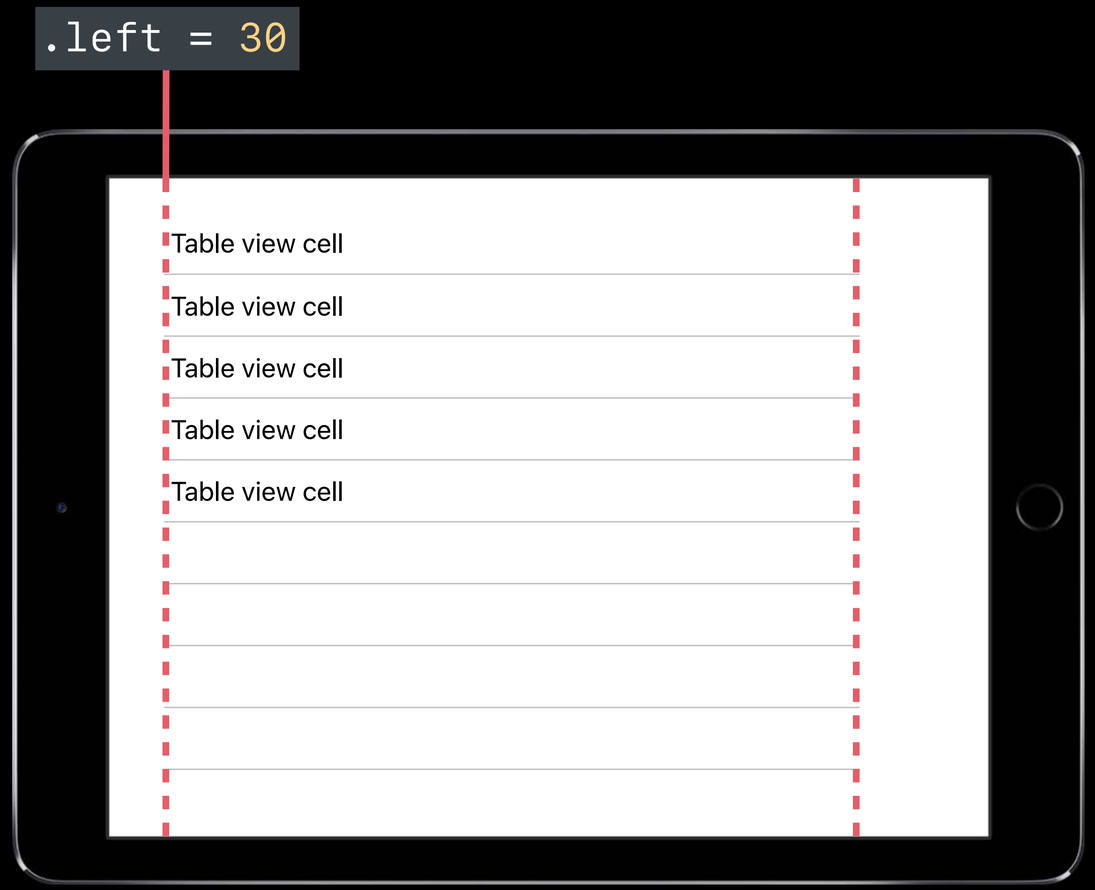

readable content guide
Table view cell
Table view cell
Table view cell
Table view cell
Table view cell


separatorInset
Table view cell
Table view cell
Table view cell
Table view cell
Table view cell

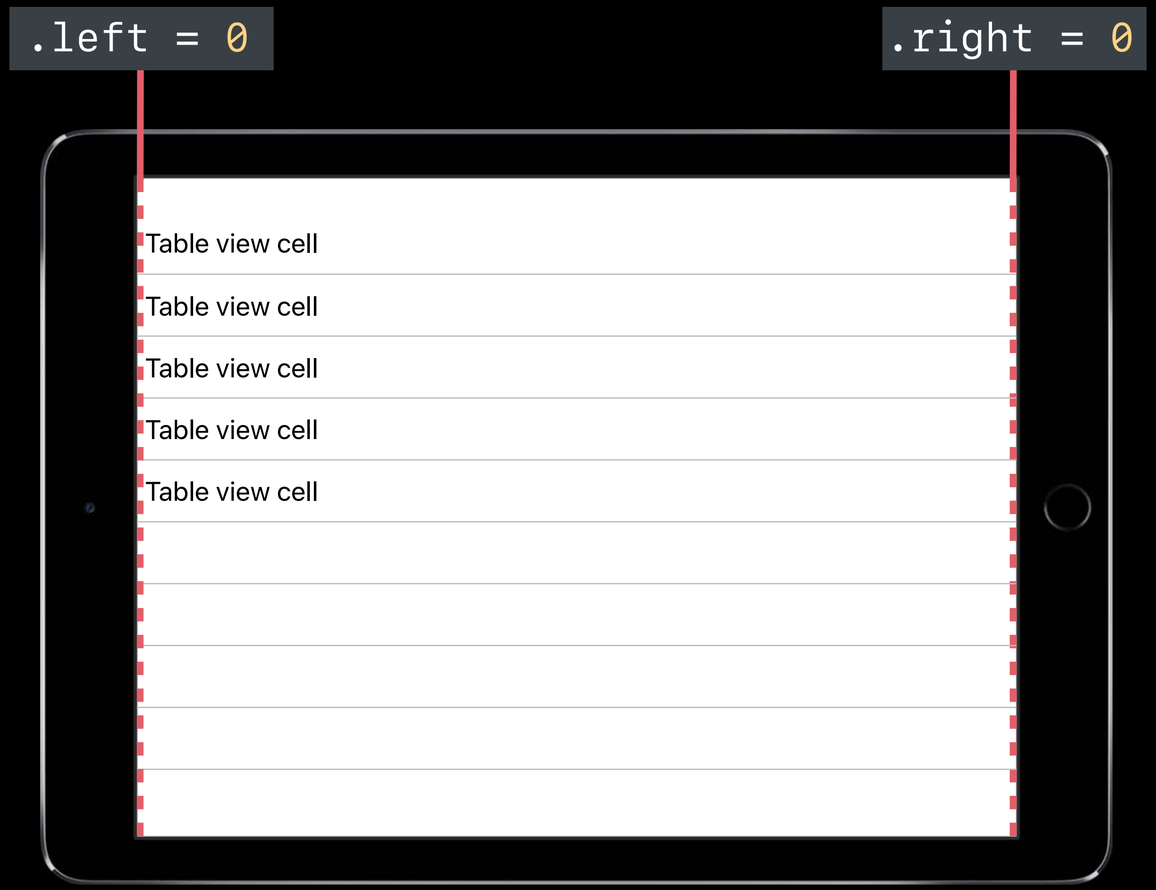
separatorInset.left = 30
Table view cell
Table view cell
Table view cell
Table view cell
Table view cell

separatorInset.left = 30
Table view cell
Table view cell
Table view cell
Table view cell
Table view cell

NEW


.left = 30
Table view cell
Table view cell
Table view cell
Table view cell
Table view cell

NEW


.left = 0
.right = 0
Table view cell
Table view cell
Table view cell
Table view cell
Table view cell

NEW

Table view cell
Table view cell
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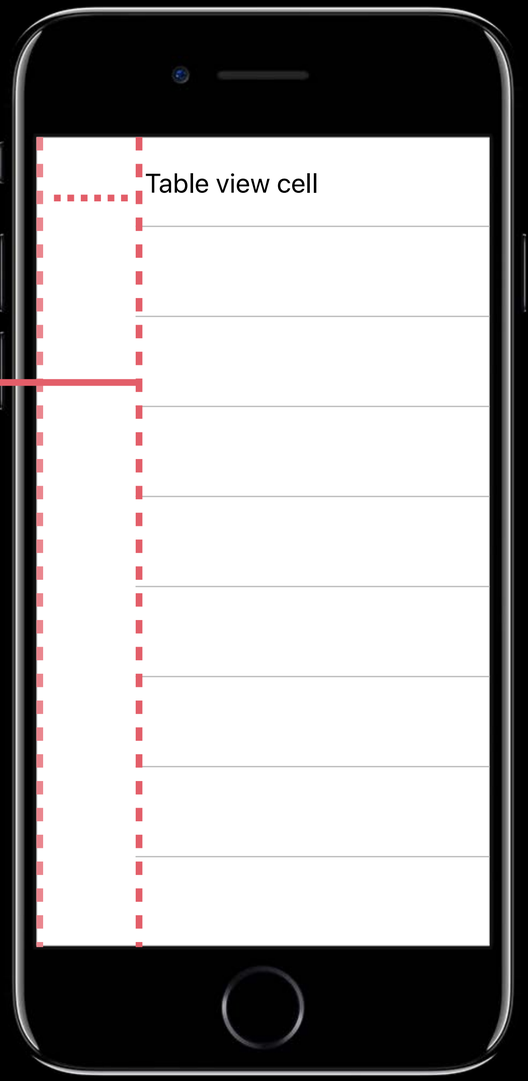
Table view cell

Table view cell

```
separatorInset.left = 60
```



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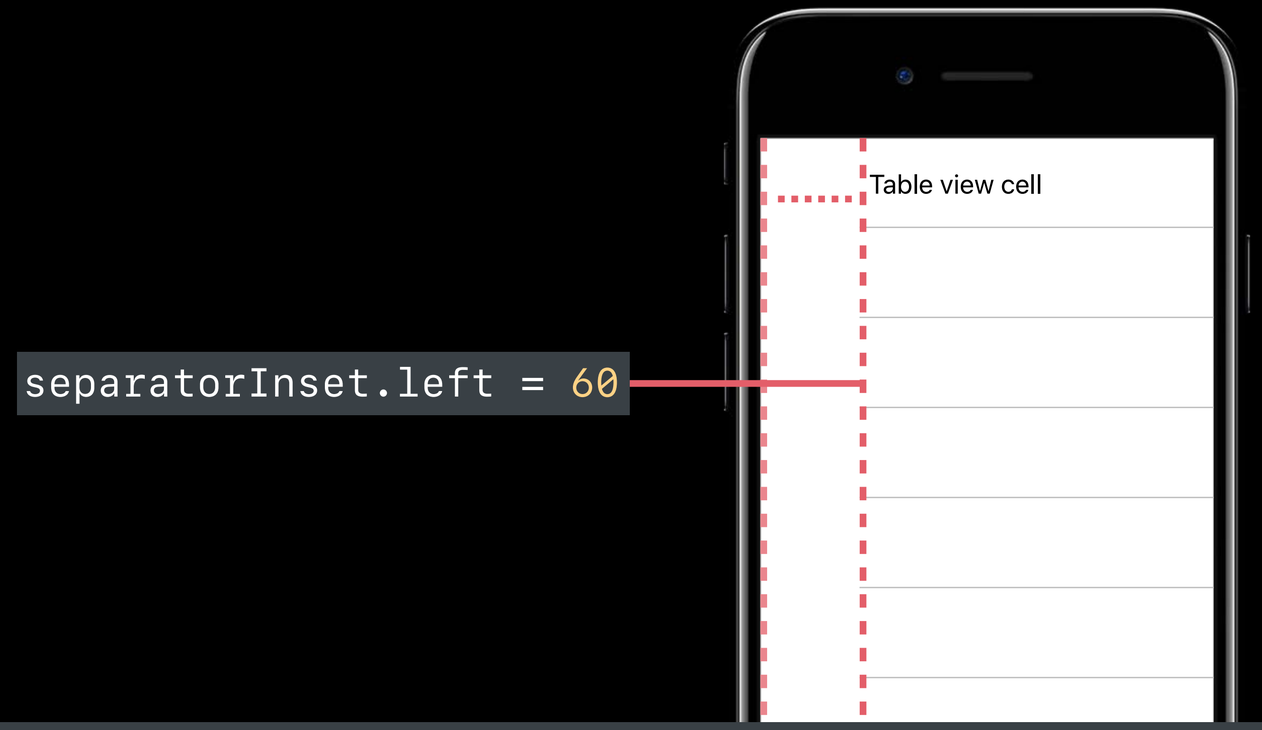



```
class MyViewController: UITableViewController {
  override func viewDidLoad() {
    tableView.separatorInsetReference = .fromCellEdges // default
  }
}
```

NEW

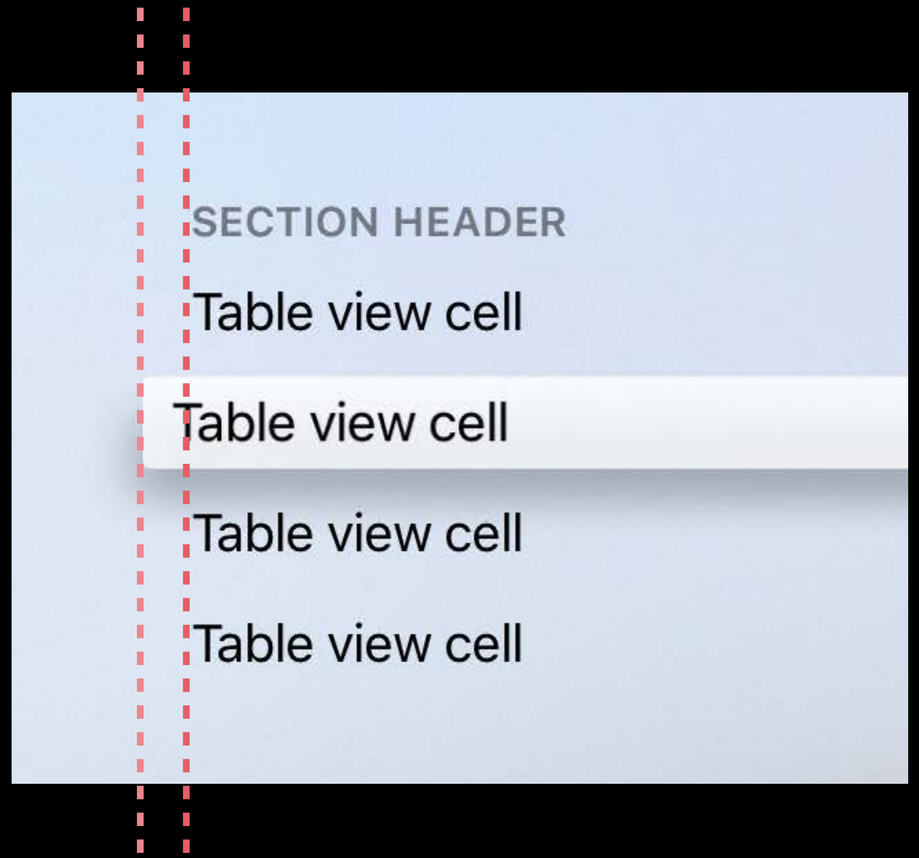
```
class MyViewController: UITableViewController {
  override func viewDidLoad() {
    tableView.separatorInsetReference = .fromAutomaticInsets
  }
}
```

Table Views and Safe Area

Automatic separator insets are relative to safe area insets

UITableViewCell and UITableViewHeaderFooterView inset their content view within the safe area

Use UITableViewHeaderFooterView for all headers and footers



Swipe Actions

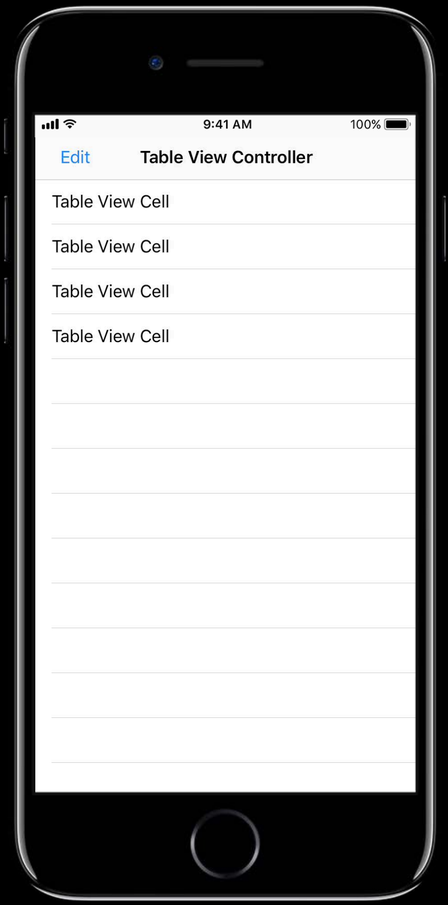
NEW

New look-and-feel automatically for all table views

Supports full swipe-to-delete for iOS 11-linked apps

New features with API adoption

- Images
- Leading and trailing actions
- Completion handler and cancellation



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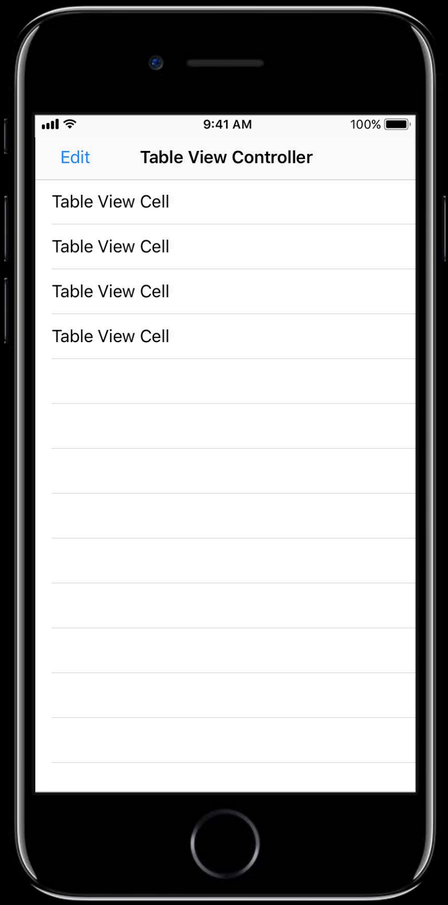

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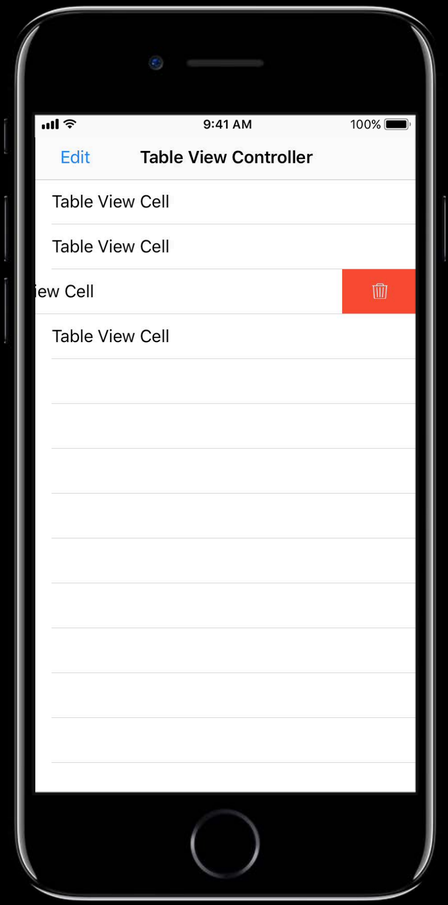

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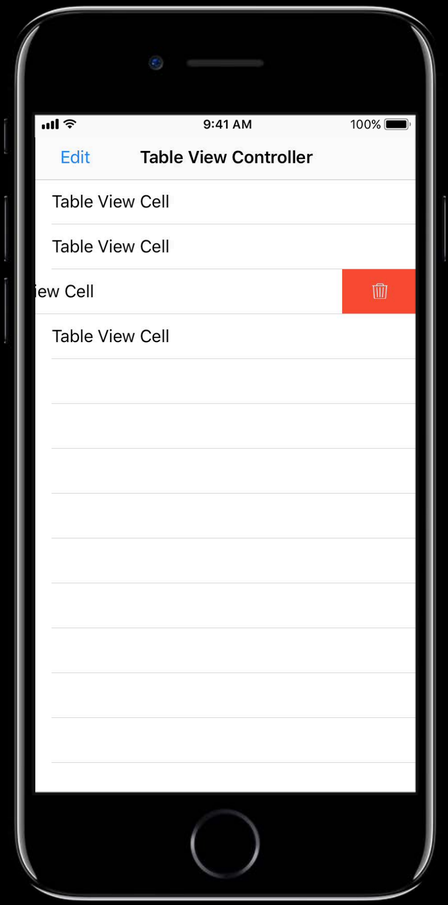

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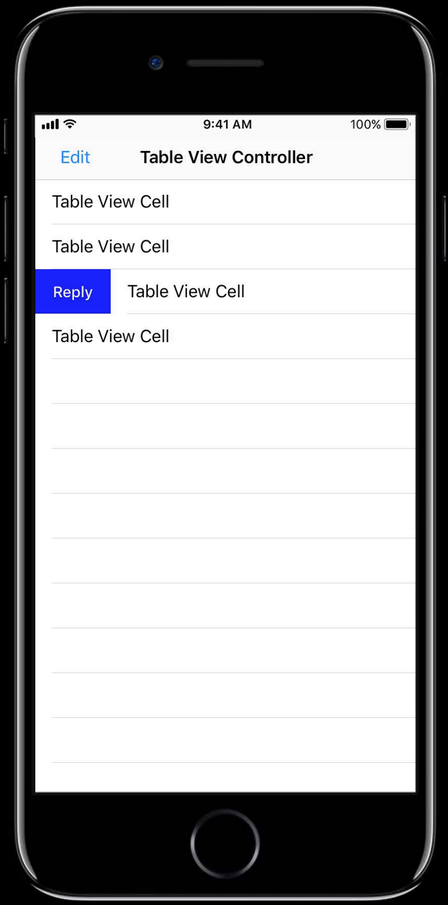

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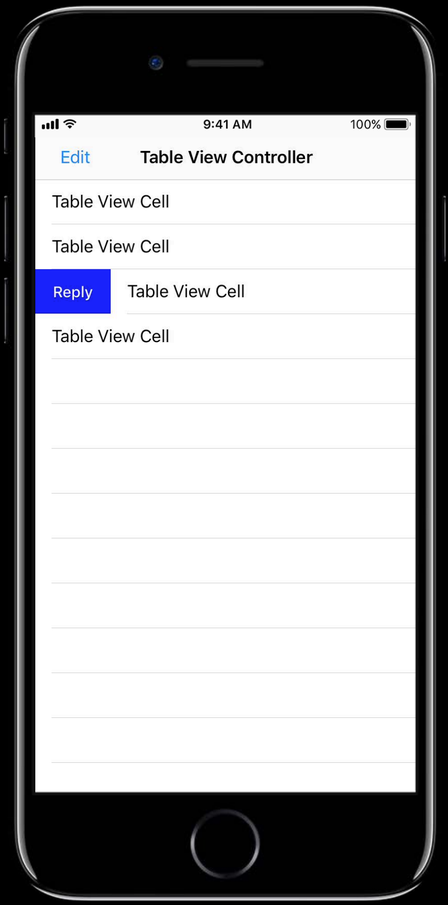

Demo

Raj Ramamurthy, iOS System Experience

Summary

Large navigation titles

New search experience

Layout margins

Safe area

Scroll views

Table views

Summary

Large navigation titles

New search experience

Layout margins

Safe area

Scroll views

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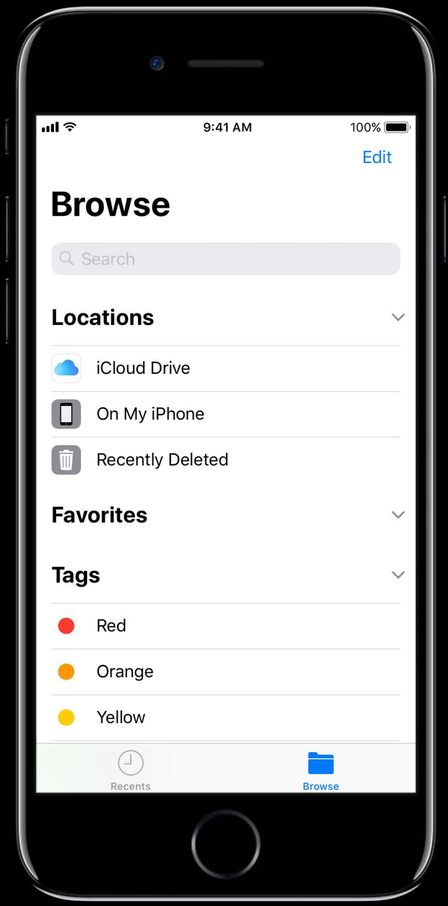

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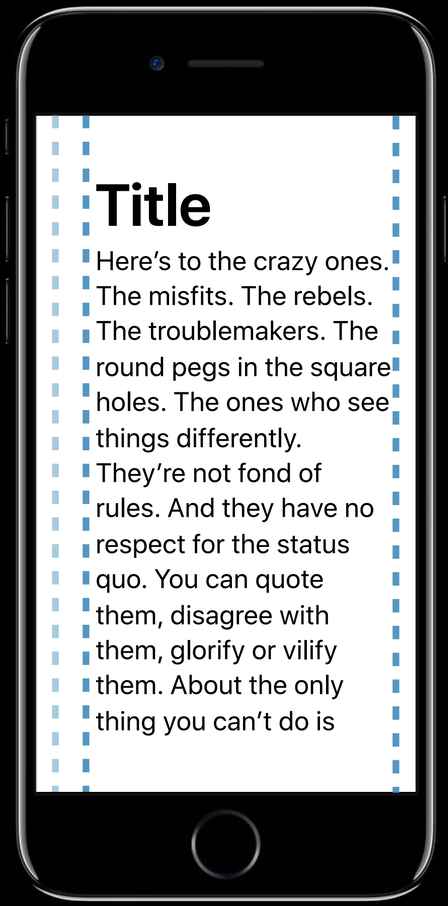

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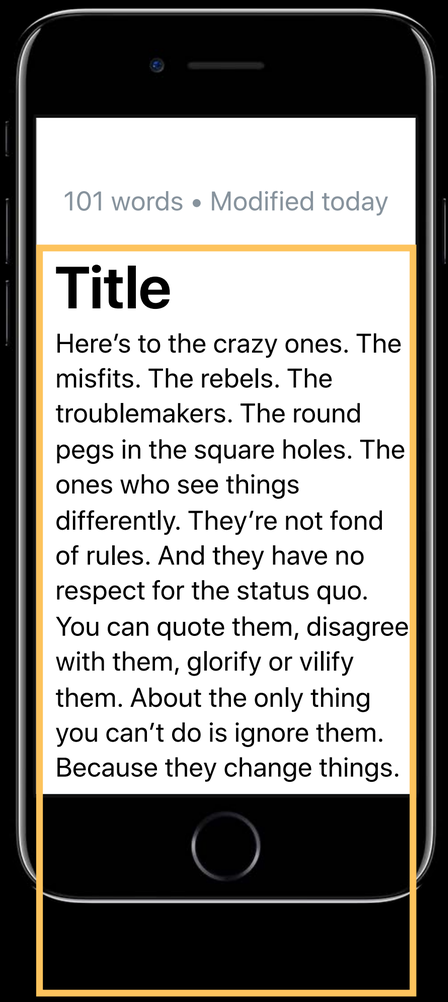

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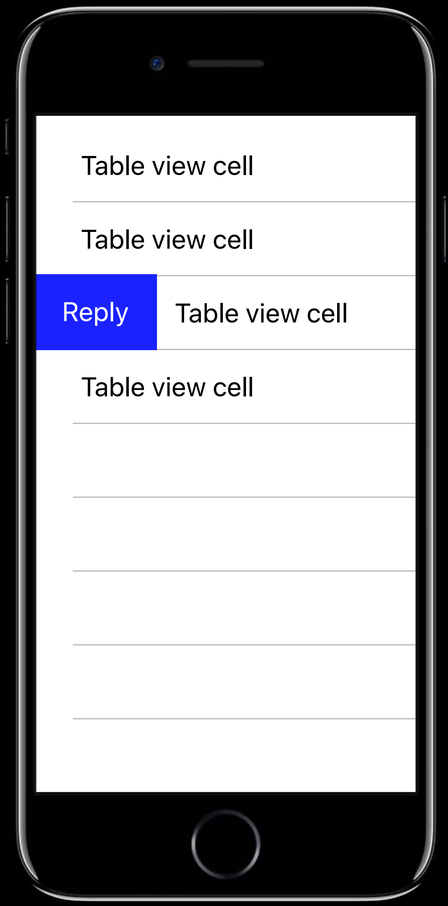

More Information

https://developer.apple.com/wwdc17/204

Labs

Cocoa Touch Lab	Technology Lab I	Wed 3:10PM–6:00PM
UIKit and Collection View Lab	Technology Lab B	Thu 10:00AM–12:30PM

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