

# PROGMM

App: CalculadoraIMC



Diseño de UI

# ¿UI, UX, IxD?

UI

Diseño de interfaces

UX

Experiencia de usuario

IxD

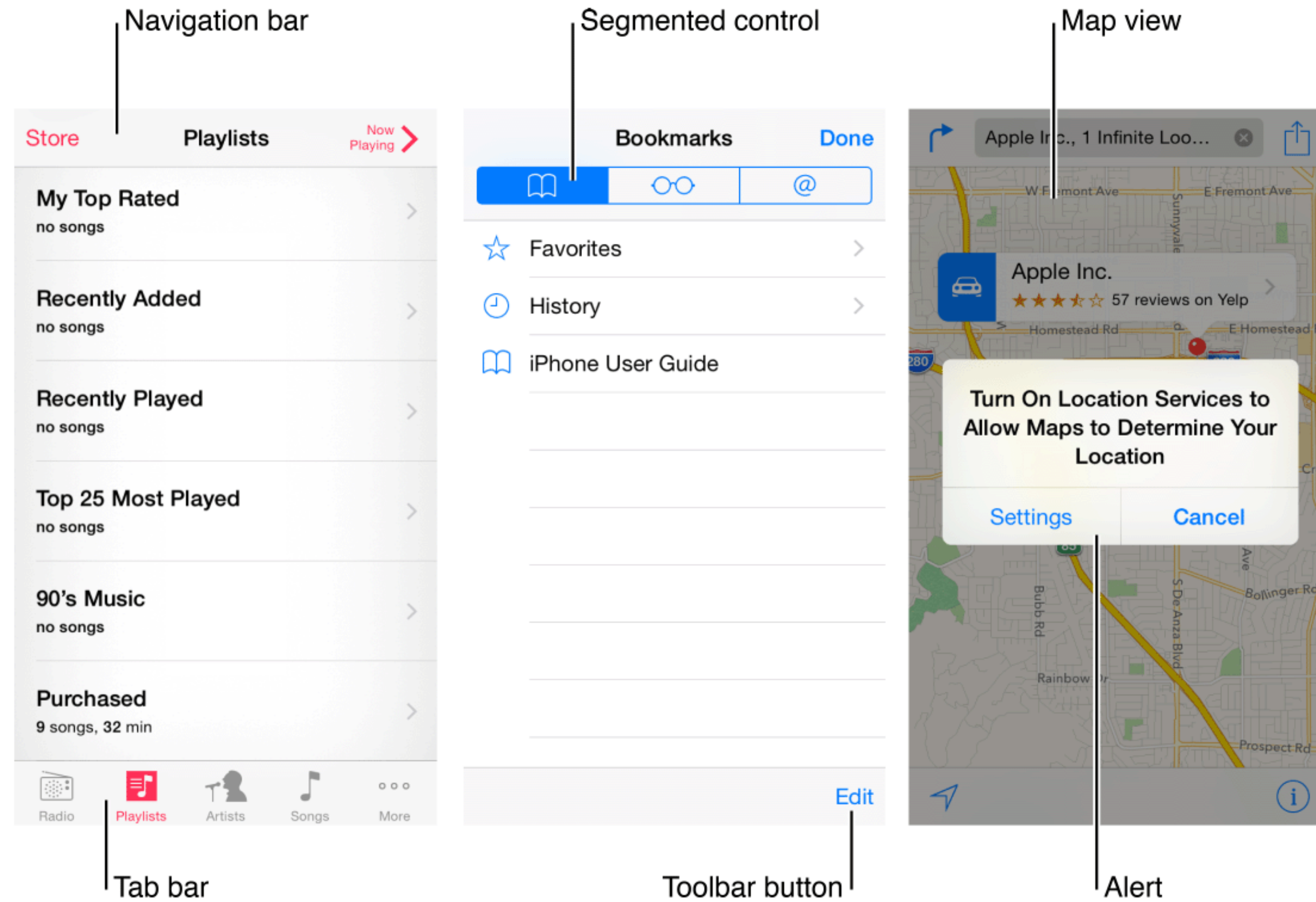
Diseño de interacción

<http://www.kambrica.com/blog/ui-ux-ixd-cual-es-la-diferencia/>

# iOS Human Interface Guidelines

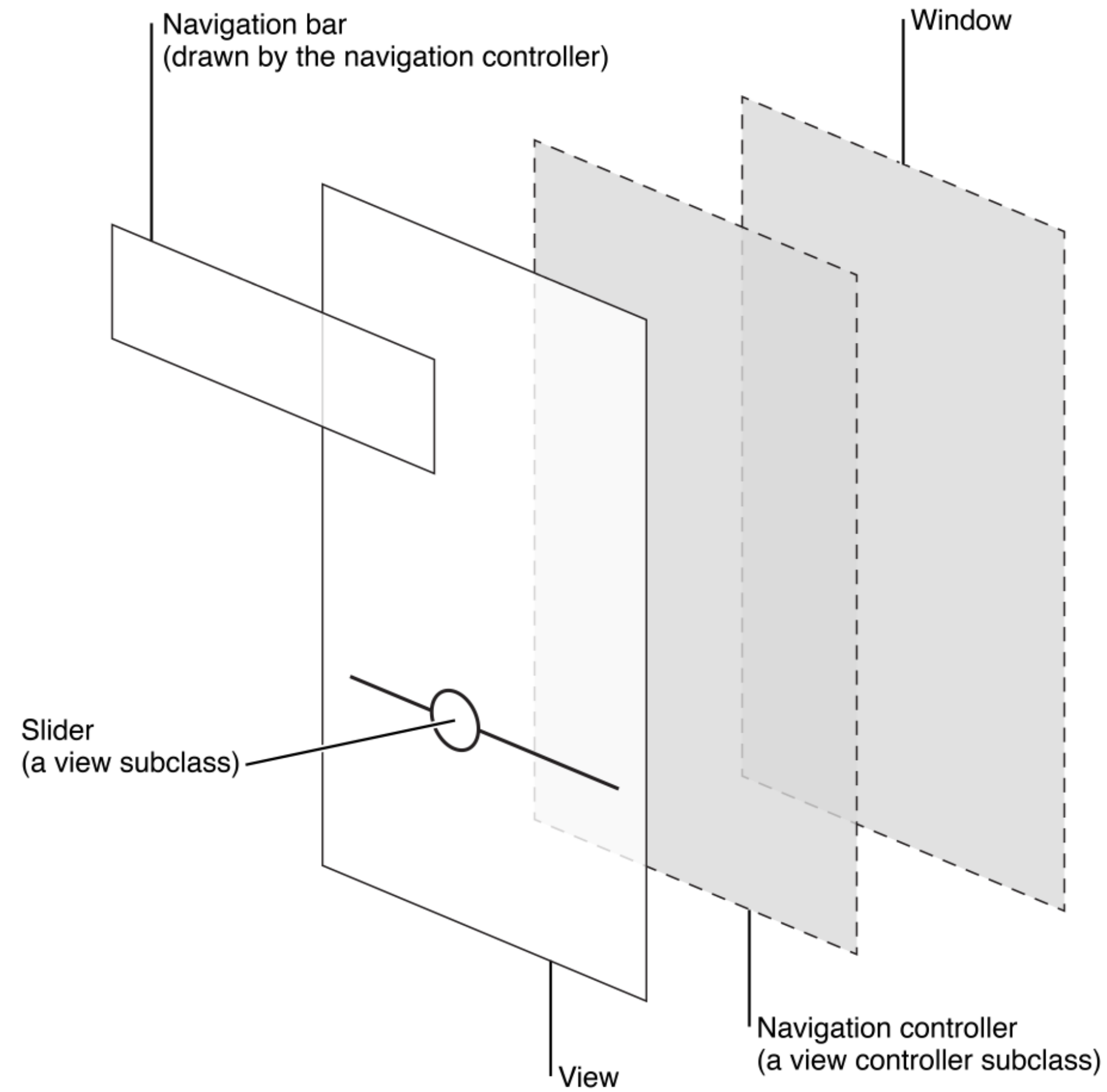
<https://developer.apple.com/ios/human-interface-guidelines/>

# Estructura de aplicación iOS

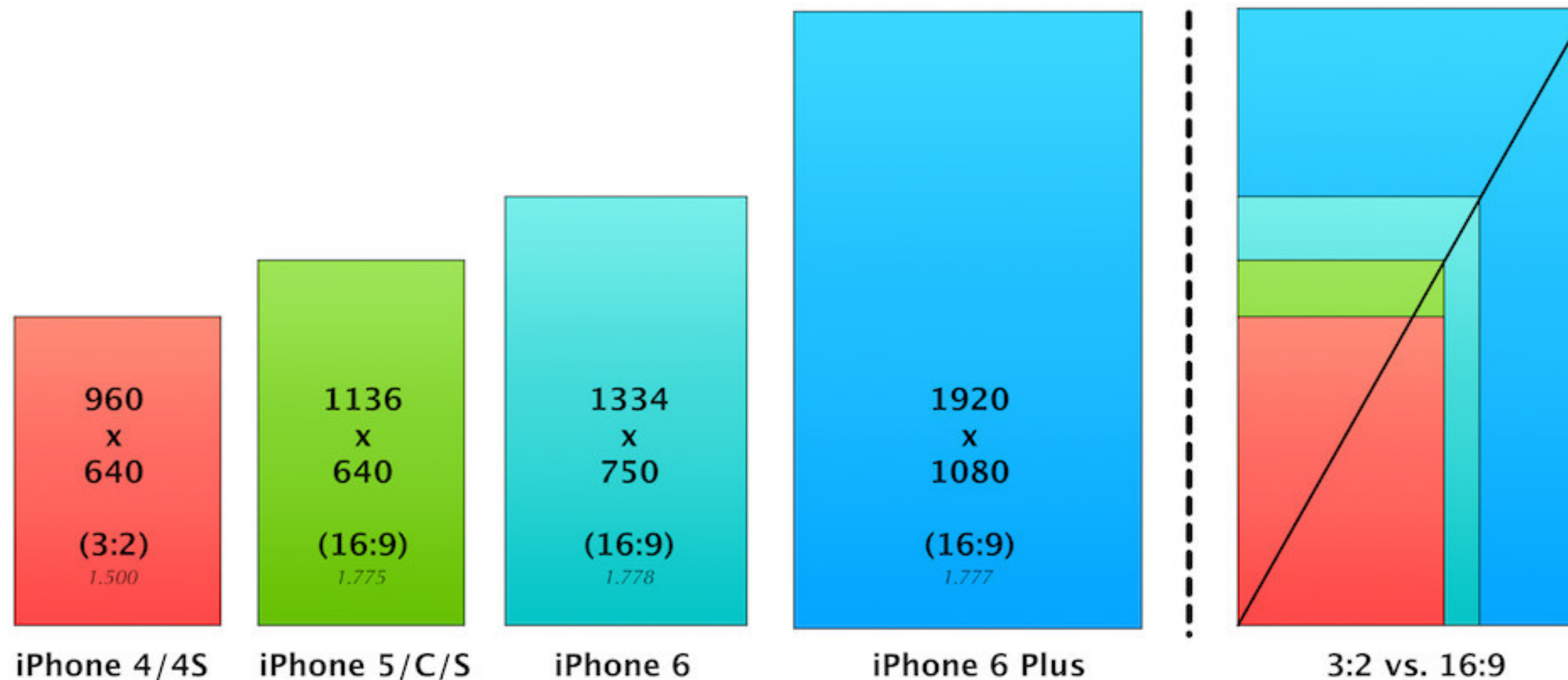




# Estructura de aplicación iOS



# Tamaños de pantalla iPhone



# Recursos

- Pantallas de alta densidad
- Medidas en puntos
- AutoLayout y Size Classes

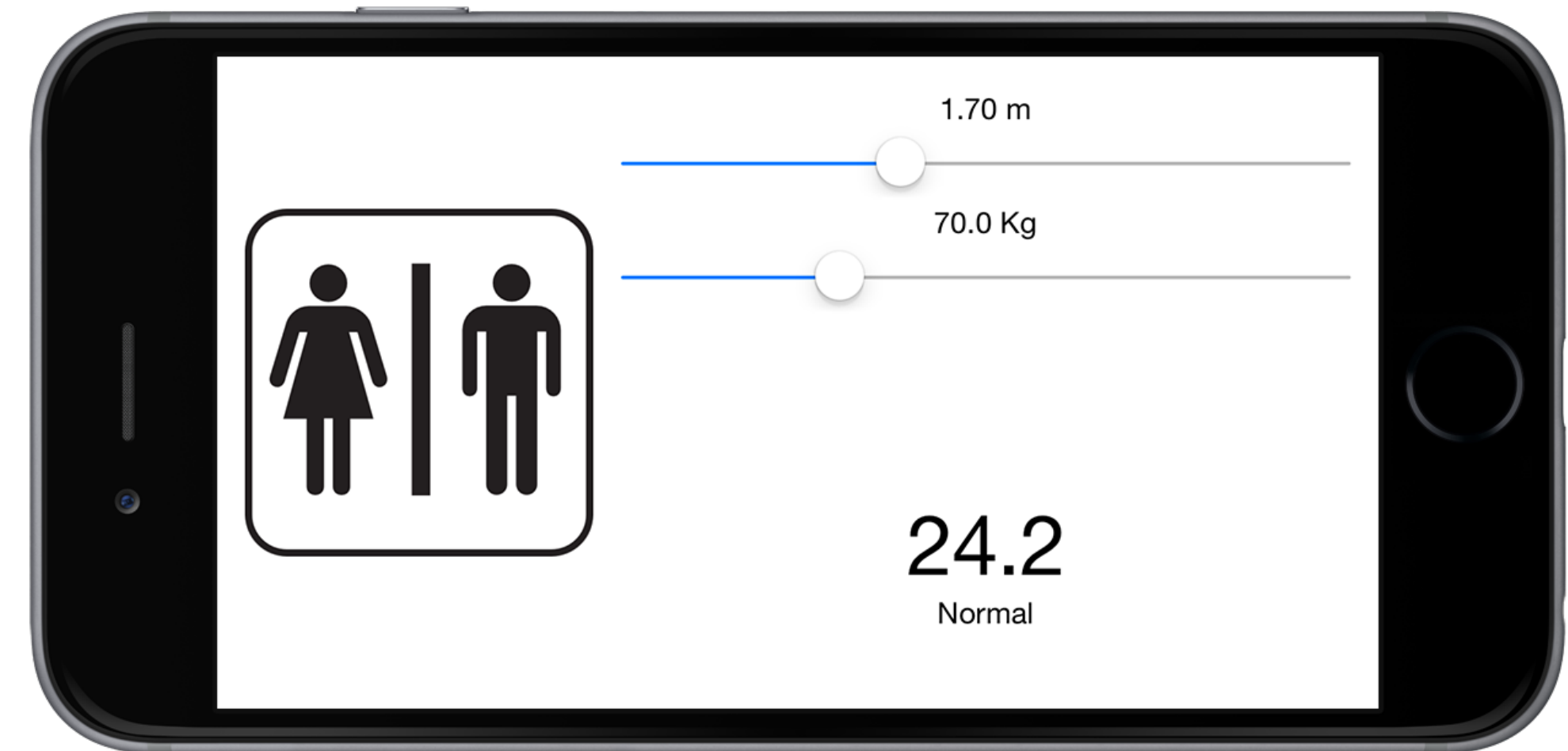


App: CalculadoraIMC

# CalculadoraIMC

- Aplicación "Single View"
- Utiliza "Auto Layout"
- Utiliza "Size Classes"

# CalculadoraIMC



# Cálculo del IMC

[http://www.texasheart.org/HIC/Topics\\_Esp/HSmart/bmi\\_calculator\\_span.cfm](http://www.texasheart.org/HIC/Topics_Esp/HSmart/bmi_calculator_span.cfm)

Auto Layout

# Auto Layout

- Permite diseñar interfaces de usuario adaptables a la resolución
- Utiliza *constraint*, reglas para colocar los elementos
- Guía de Auto Layout: <https://goo.gl/9v2a8u>



# Controles principales



View as: iPhone 7 (wC hR)












66 %



# Alineación

**Add New Alignment Constraints**

<input type="checkbox"/>	 Leading Edges	<input type="text"/>
<input type="checkbox"/>	 Trailing Edges	<input type="text"/>
<input type="checkbox"/>	 Top Edges	<input type="text"/>
<input type="checkbox"/>	 Bottom Edges	<input type="text"/>
<hr/>		
<input type="checkbox"/>	 Horizontal Centers	<input type="text"/>
<input type="checkbox"/>	 Vertical Centers	<input type="text"/>
<input type="checkbox"/>	 Baselines	<input type="text"/>
<hr/>		
<input checked="" type="checkbox"/>	 Horizontally in Container	<input type="text" value="0"/>
<input type="checkbox"/>	 Vertically in Container	<input type="text" value="0"/>
<hr/>		
Update Frames	<input type="text" value="None"/>	
<div>Add 1 Constraint</div>		

# Posición y tamaño

**Add New Constraints**

96

184 59

147

Spacing to nearest neighbor

☒ Constrain to margins

☒ Width 100

☒ Height 100

☐ Equal Widths

☐ Equal Heights

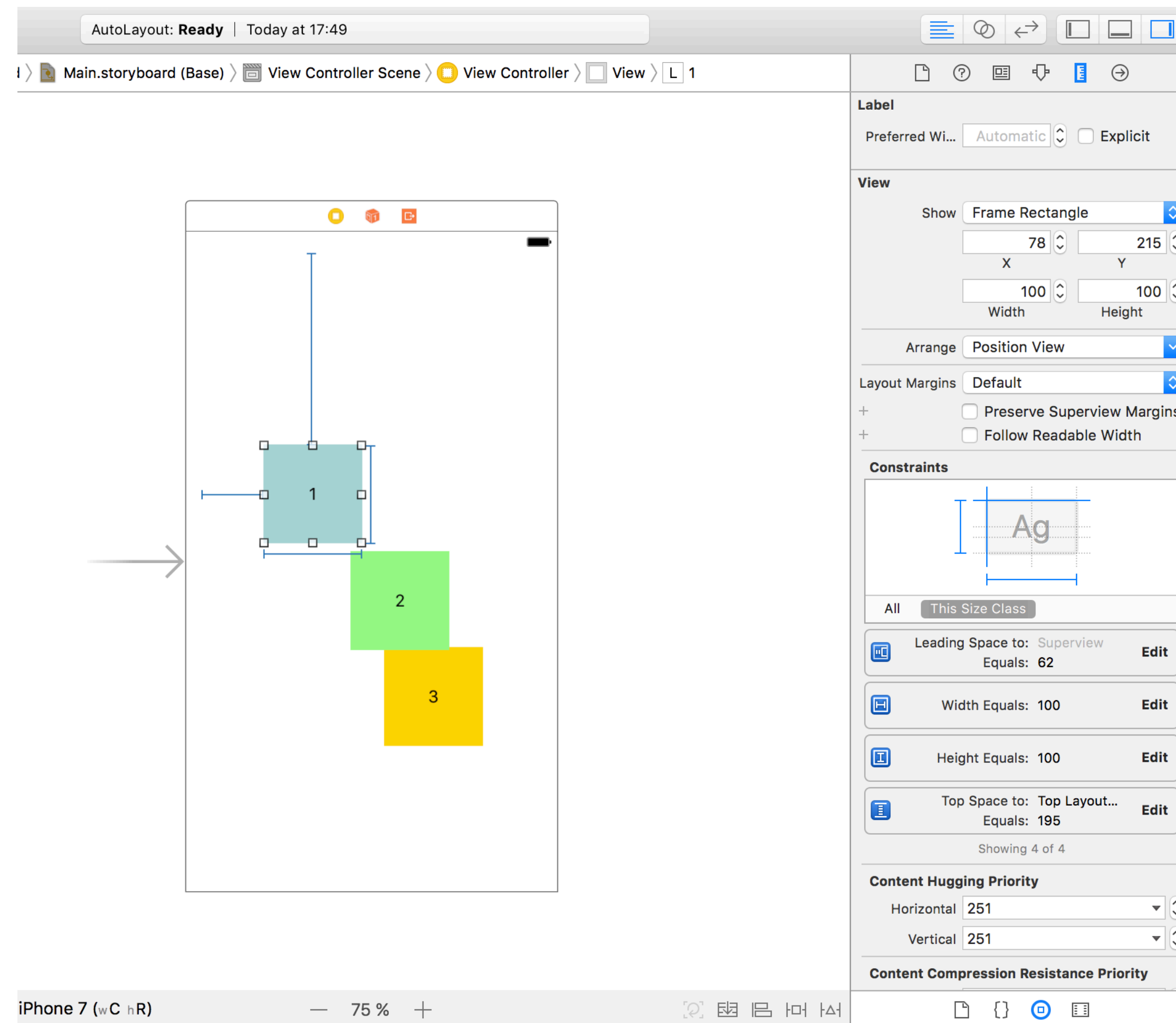
☐ Aspect Ratio

☐ Align Leading Edges

Update Frames None

Add 3 Constraints

# Explorador de propiedades



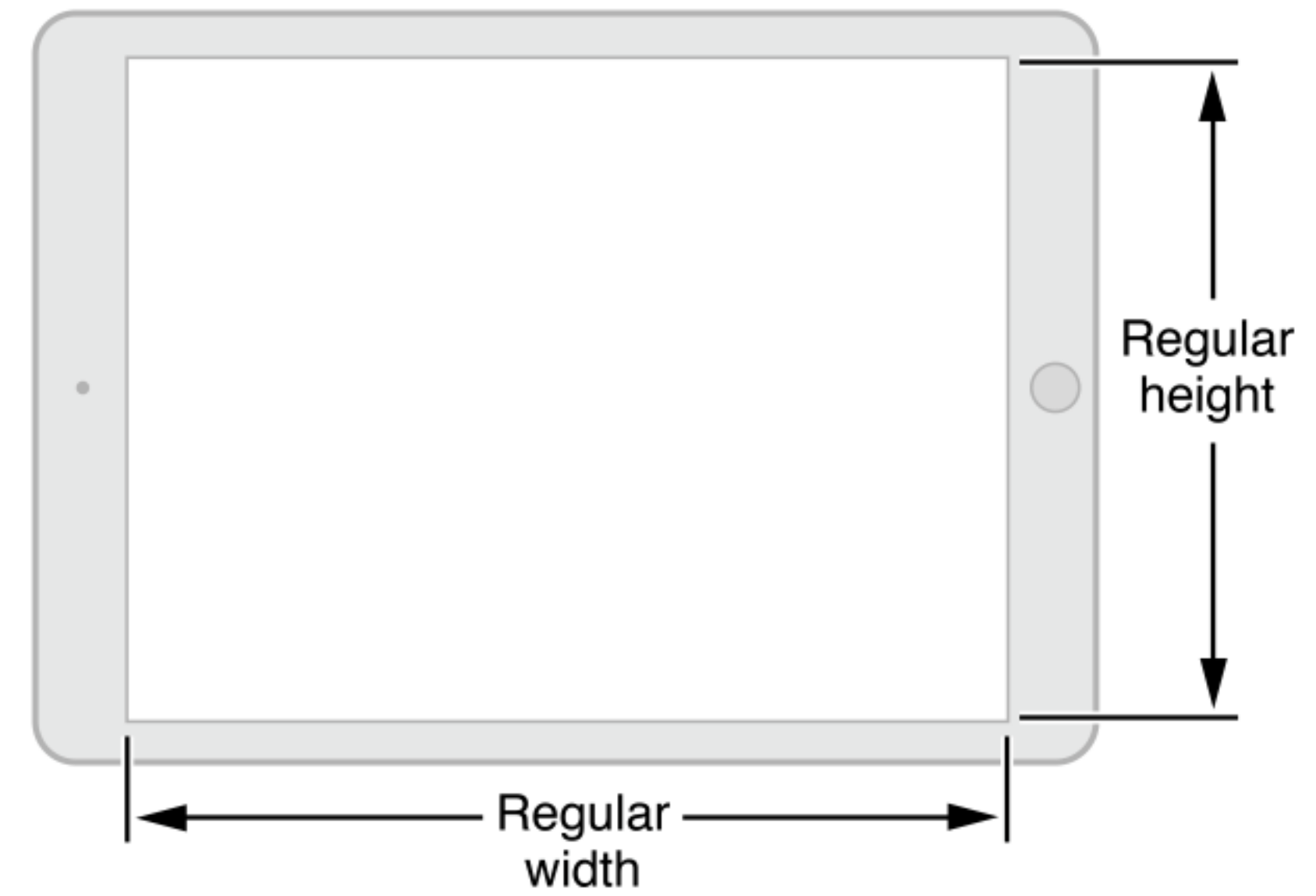
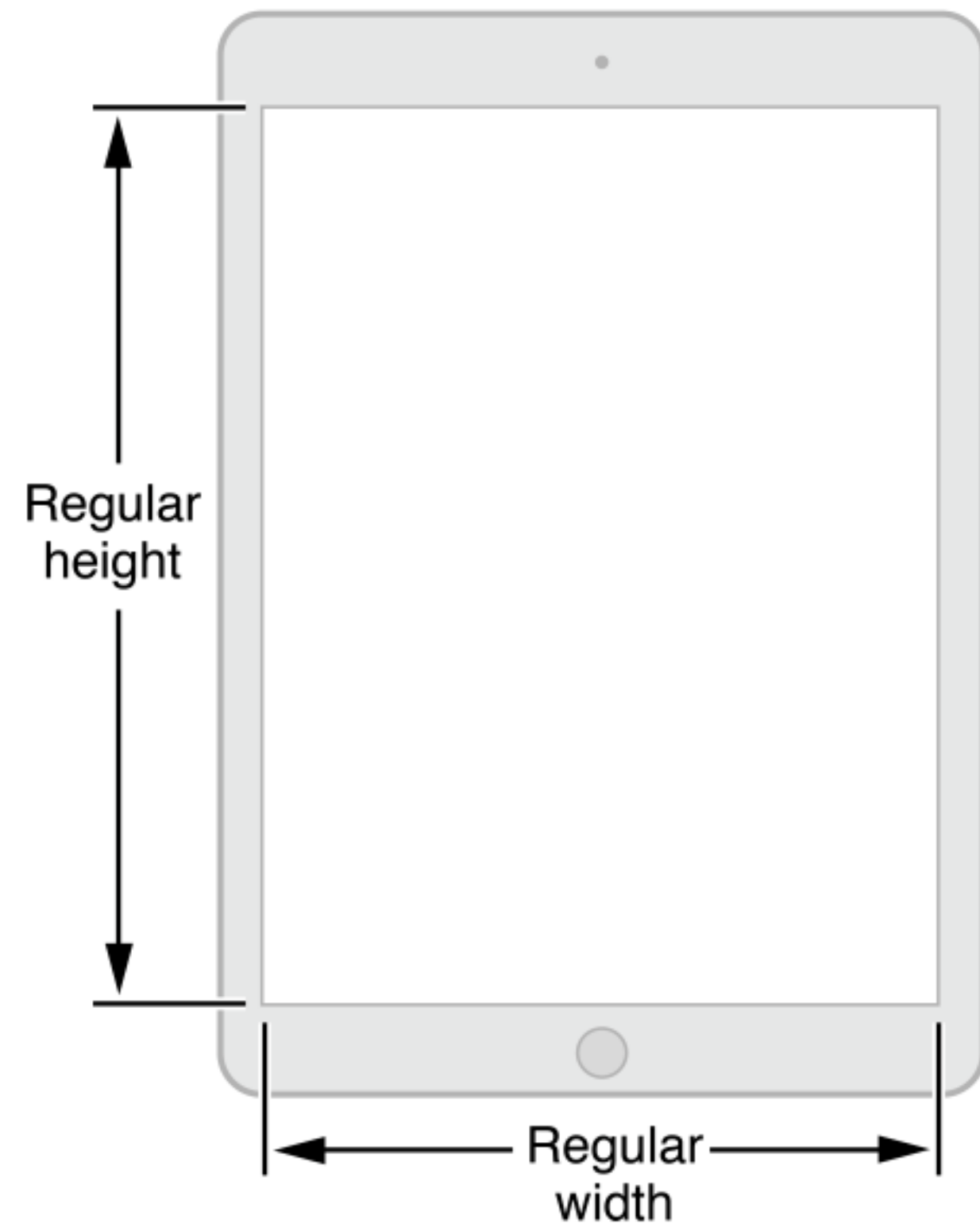
Variantes del interfaz

# Variantes del interfaz

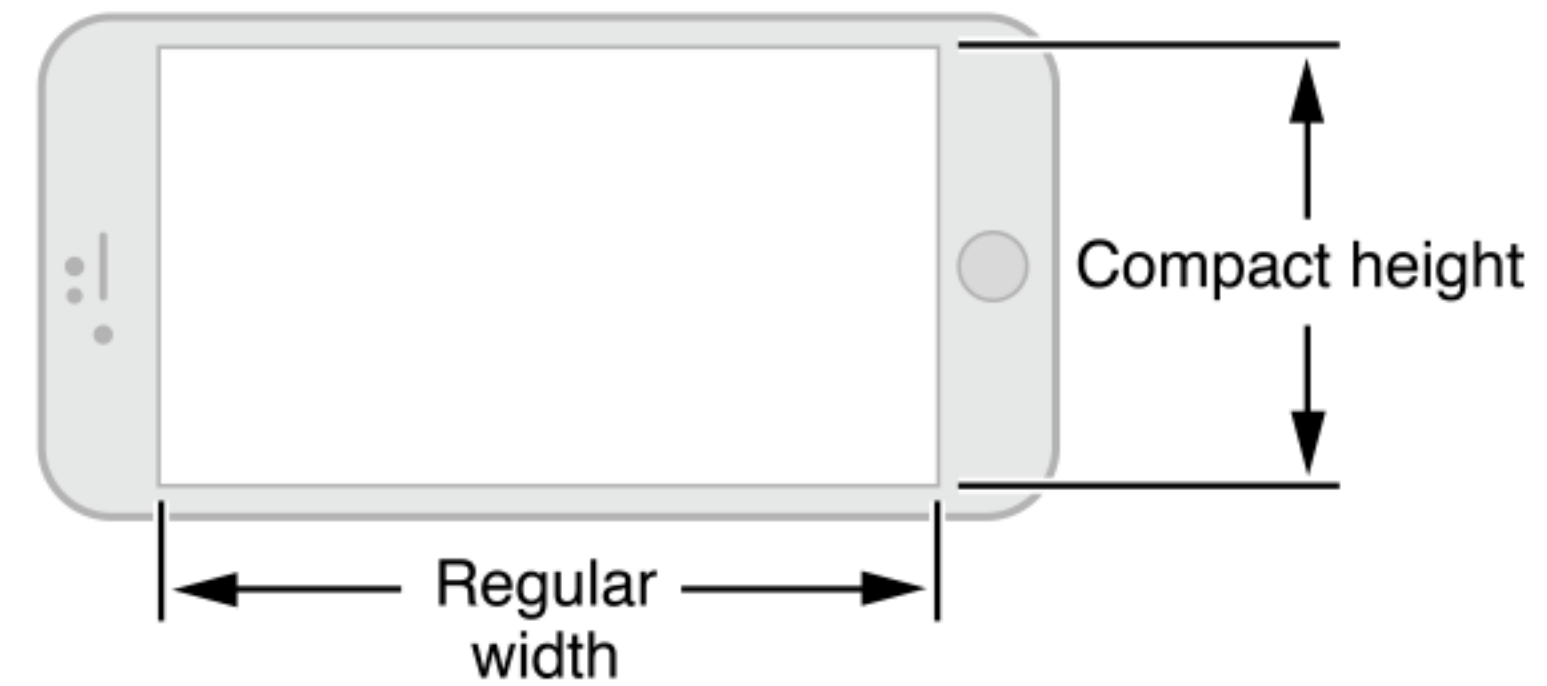
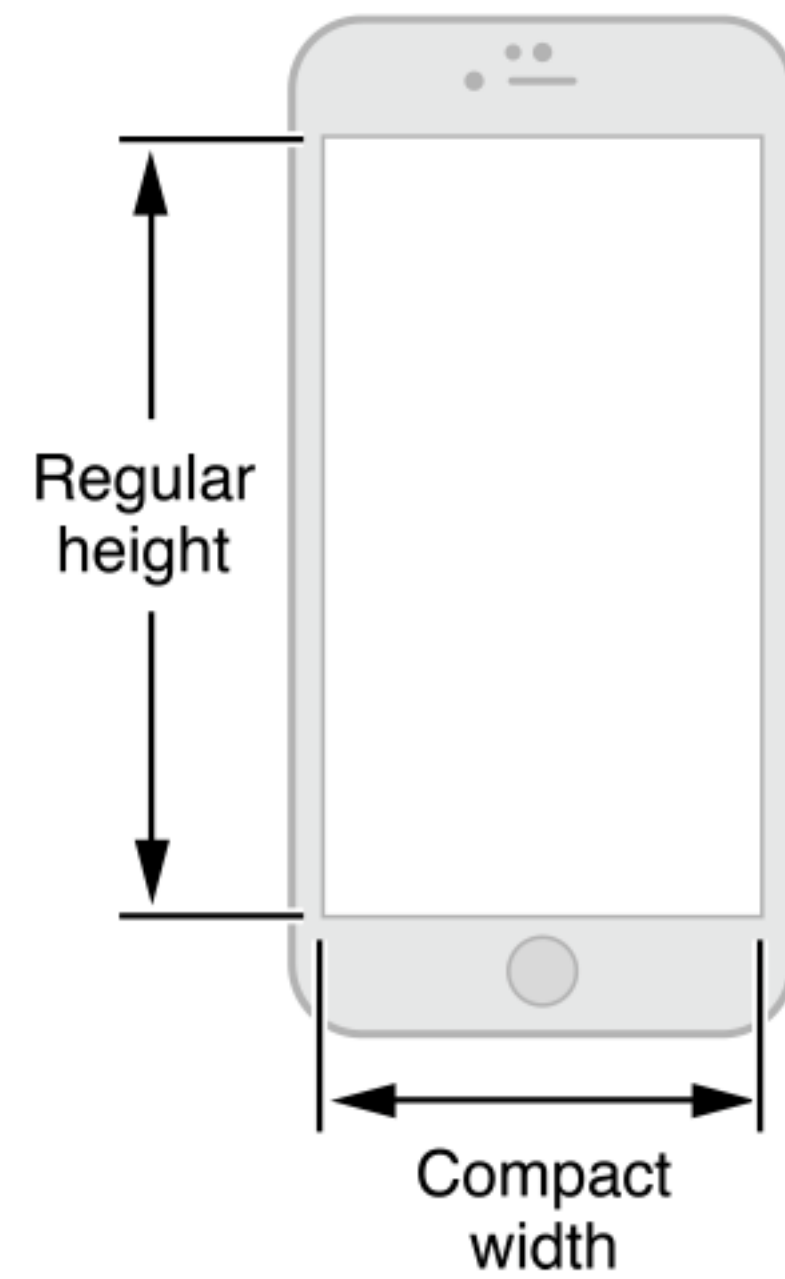
- Permiten crear diferentes conjuntos de reglas para diferentes resoluciones de pantalla
- Se basa en agrupar los diferentes dispositivos en *size classes*



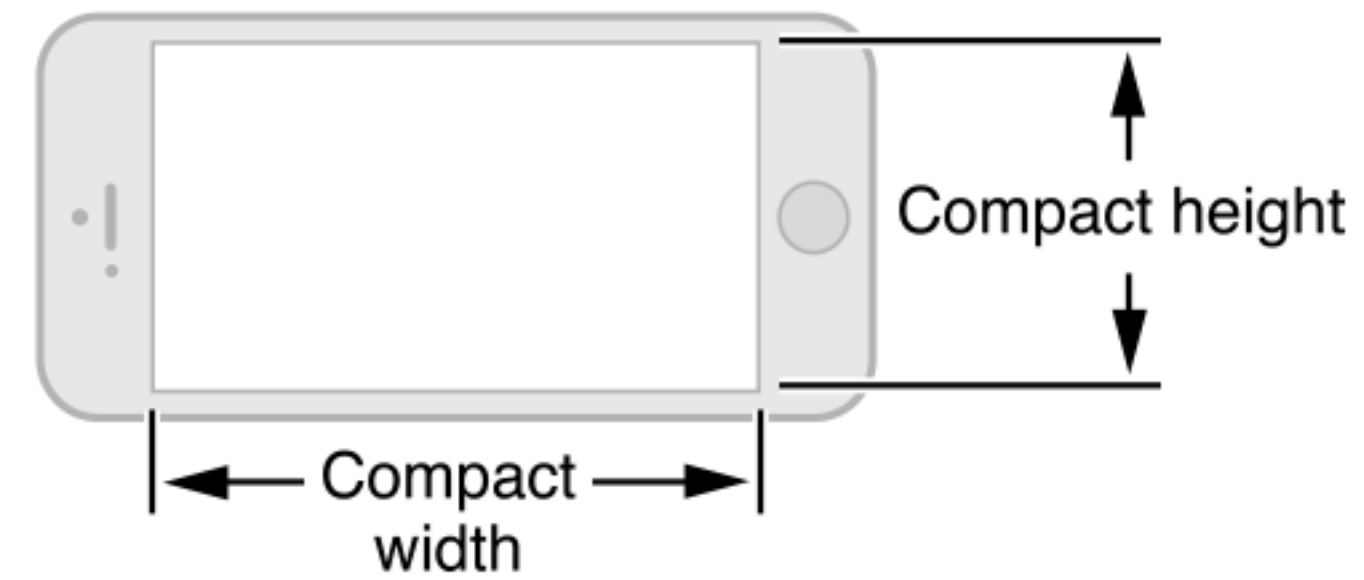
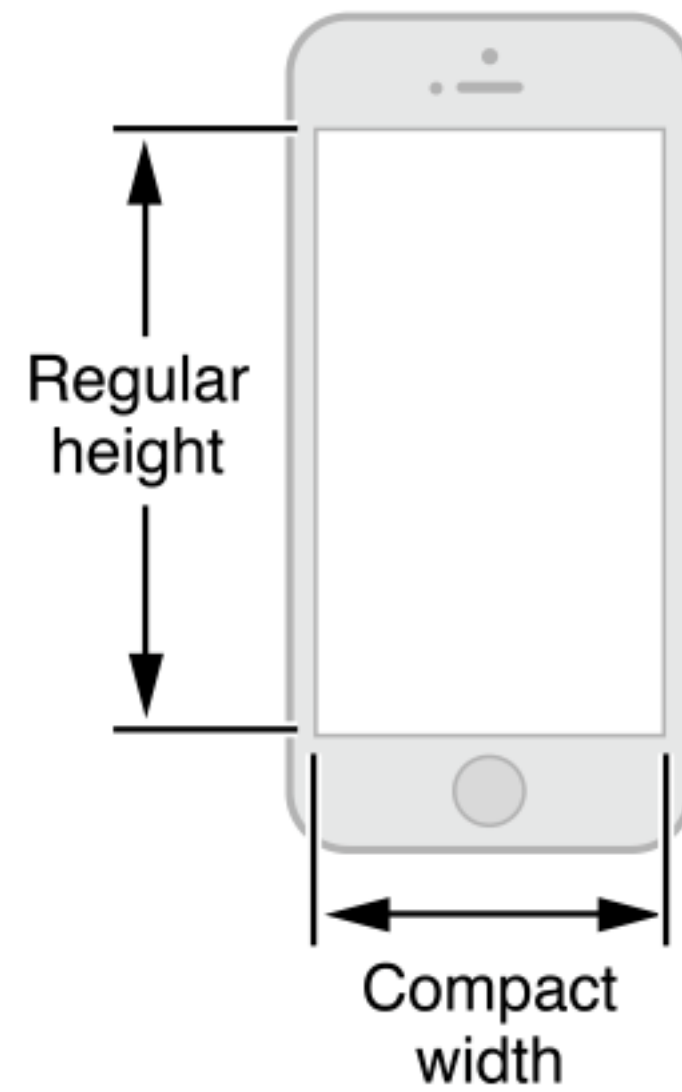
# iPad



# iPhone 6 Plus



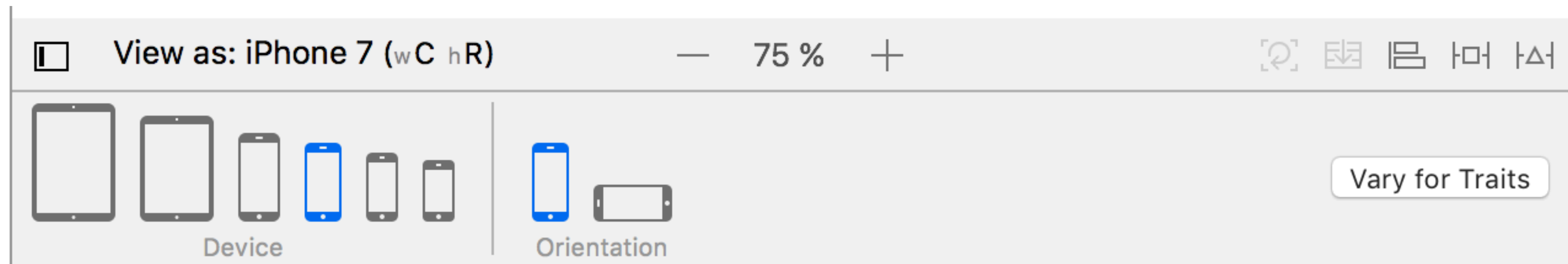
# iPhone 6, 5, 4S

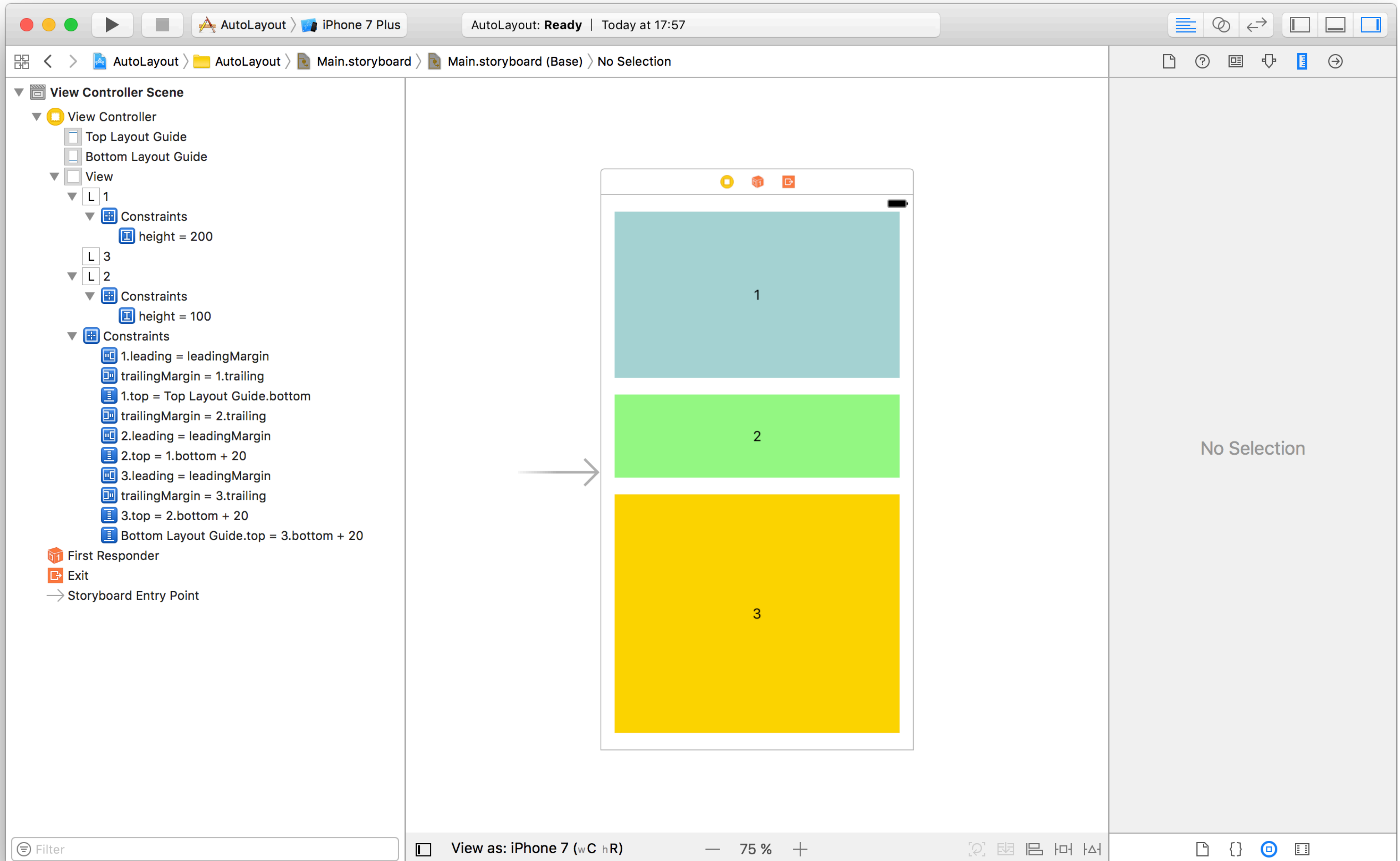


# Creando variantes del interfaz

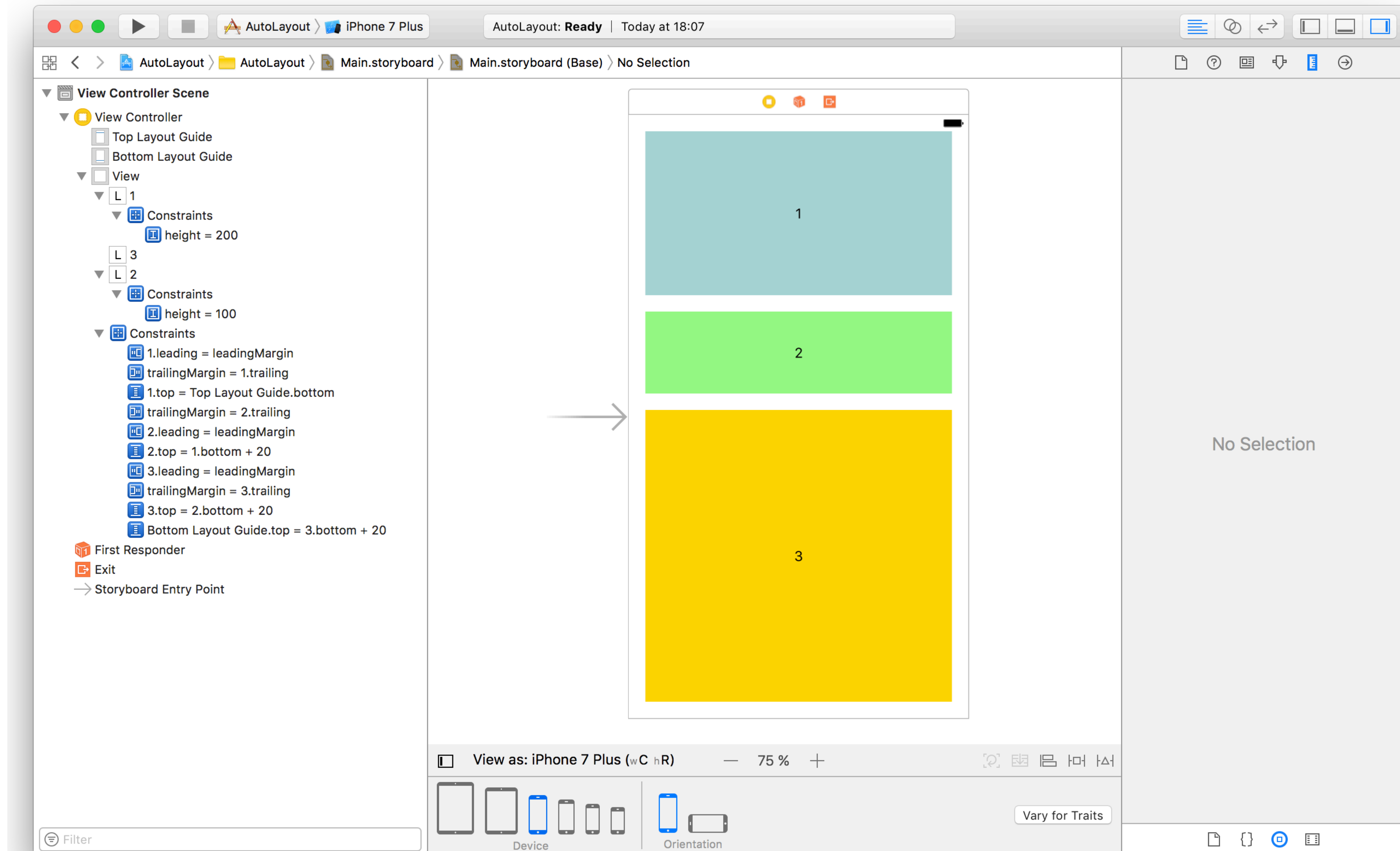
- Primero diseñamos el interfaz en la orientación principal
- Usando los controles, seleccionamos la orientación para la que vamos a crear la variación
- Las modificaciones que hagamos se aplicarán sólo a esa *size class*

# Controles principais









AutoLayout > iPhone 7 Plus

AutoLayout: Ready | Today at 18:09

AutoLayout > AutoLayout > Main.storyboard > Main.storyboard (Base) > No Selection

View Controller Scene

View Controller

Top Layout Guide

Bottom Layout Guide

View

L 1

Constraints

height = 200

L 3

L 2

Constraints

height = 100

Constraints

1.leading = leadingMargin

trailingMargin = 1.trailing

1.top = Top Layout Guide.bottom

trailingMargin = 2.trailing

2.leading = leadingMargin

2.top = 1.bottom + 20

3.leading = leadingMargin

trailingMargin = 3.trailing

3.top = 2.bottom + 20

Bottom Layout Guide.top = 3.bottom + 20

First Responder

Exit

Storyboard Entry Point

1

2

3

View as: iPhone 7 Plus (wR hC)

75 %

Device

Orientation

Vary for Traits

No Selection

AutoLayout > iPhone 7 Plus

AutoLayout: Ready | Today at 18:44

AutoLayout > AutoLayout > Main.storyboard > Main.storyboard (Base) > No Selection

File

Help

Inspector

Tools

Navigation

View Controller Scene

View Controller

Top Layout Guide

Bottom Layout Guide

View

L 1

Constraints

height = 150

height = 200

L 3

L 2

Constraints

height = 150

height = 100

Constraints

1.leading = leadingMargin

trailingMargin = 1.trailing

1.top = Top Layout Guide...

3.leading = leadingMargin

trailingMargin = 3.trailing

3.top = 1.bottom + 20

3.top = 2.bottom + 20

2.leading = 1.trailing + 20

2.top = Top Layout Guid...

2.width = 1.width

trailingMargin = 2.trailing

trailingMargin = 2.trailing

2.leading = leadingMargin

2.top = 1.bottom + 20

Bottom Layout Guide.top...

First Responder

Exit

Storyboard Entry Point

1

2

3

No Selection

View as: iPhone 7 (wC hC)

73 %

Zoom

Fit

Full Screen

Reset

Close

Varying 4 Compact Height Devices

Done Varying

AutoLayout > iPhone 7 Plus

AutoLayout: Ready | Today at 18:44

AutoLayout > AutoLayout > Main.storyboard > Main.storyboard (Base) > No Selection

File

Help

Inspector

Library

Preview

Canvas

View Controller Scene

View Controller

Top Layout Guide

Bottom Layout Guide

View

L 1

Constraints

height = 100

height = 200

L 3

L 2

Constraints

height = 100

height = 100

Constraints

1.leading = leadingMargin

trailingMargin = 1.trailing

1.top = Top Layout Guide...

3.leading = leadingMargin

trailingMargin = 3.trailing

3.top = 1.bottom + 164.5

3.top = 2.bottom + 20

2.leading = 1.trailing + 20

2.top = Top Layout Guid...

2.width = 1.width

trailingMargin = 2.trailing

trailingMargin = 2.trailing

2.leading = leadingMargin

2.top = 1.bottom + 20

Bottom Layout Guide.top...

First Responder

Exit

Storyboard Entry Point

1

2

3

No Selection

View as: iPhone 7 (wC hR)

73 %

Zoom In

Zoom Out

Reset

Fit

Full Screen

Device

Orientation

Vary for Traits

すべての質問は？

Any questions?

Galderarik?

¿Alguna pregunta?

任何問題？

Alguma pergunta?

أي أسئلة؟

질문 있나요?