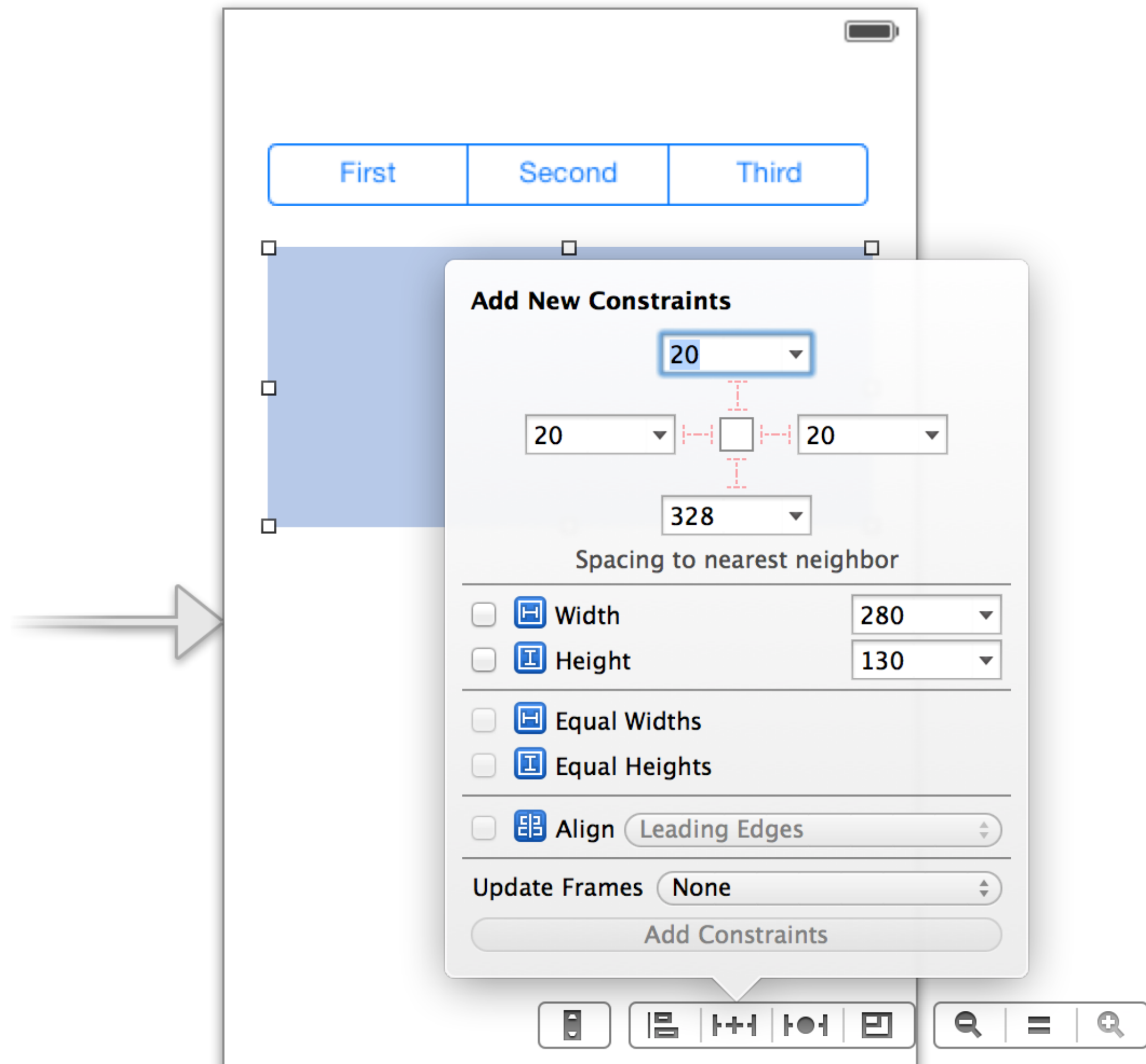


# Auto Layout



# ALIGN

### Add New Alignment Constraints

☐ Leading Edges

☐ Trailing Edges

☐ Top Edges

☐ Bottom Edges

☐ Horizontal Centers

☐ Vertical Centers

☐ Baselines

☐ Horizontal Center in Container 

0

☐ Vertical Center in Container 

0

Update Frames

None

Add Constraints

이름 너비 높이

# PIN

### Add New Constraints

140

144

144

160

Spacing to nearest neighbor

☒ Constrain to margins

☐ Width

280

☐ Height

280

☐ Equal Widths

☐ Equal Heights

☐ Aspect Ratio

☐ Align

Leading Edges

Update Frames

None

Add Constraints

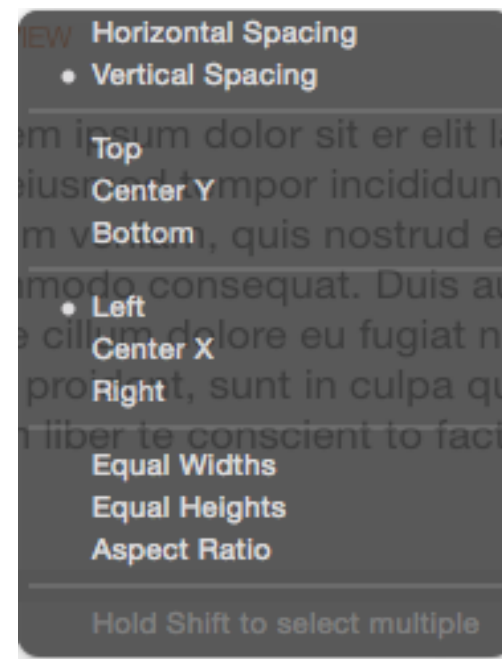
이름 너비 높이

# Auto Layout?

- Define a interface por relações matemáticas entre elementos (*constraints*)
- Útil devido aos novos tamanhos de tela e diferentes devices
- Resolve sistemas de equações lineares ([Cassowary](#))

# Programaticamente x Storyboard

- Focaremos no uso via Storyboard
- Para criar constraints entre 2 elementos, selecione o primeiro, deixe *Control* apertado e arraste para o outro

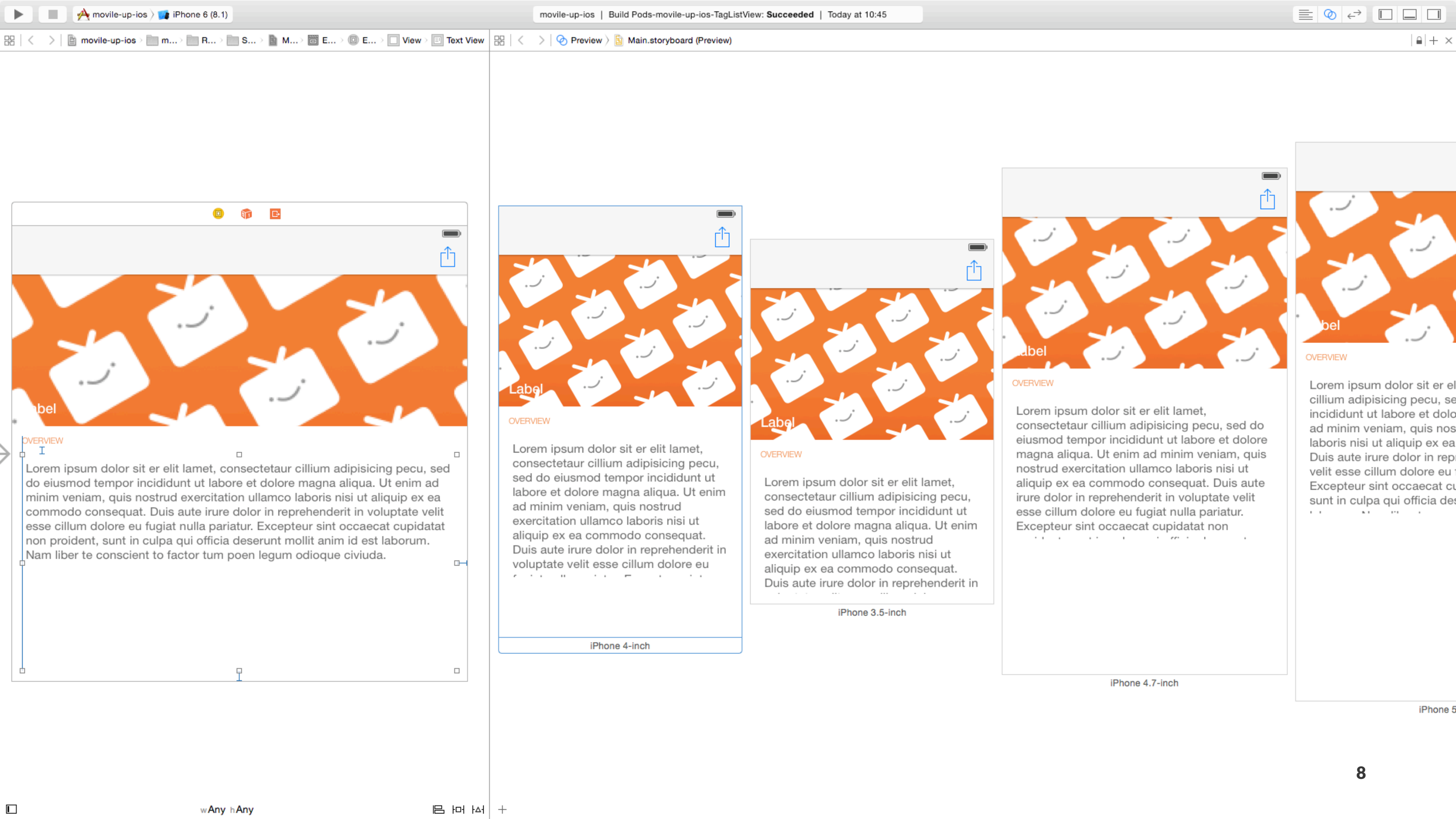


Prática e mais prática

# Importante!

- Deixar de setar `frame` e `bounds`
- Criar outlets para *constraints* e alterar a *property constant*
- Inclusive para fazer animações!

```
@IBOutlet weak var overviewContainerHeightConstraint: NSLayoutConstraint!  
  
override func viewDidLoadSubviews() {  
    super.viewDidLoadSubviews()  
    overviewContainerHeightConstraint.constant = 120  
}
```







## Chapter 32

### OVERVIEW

Frank and Claire travel to Moscow to negotiate the return of an imprisoned U.S. citizen. Claire takes a stand that jeopardizes their plans.