AutoLayout

강사 주영민

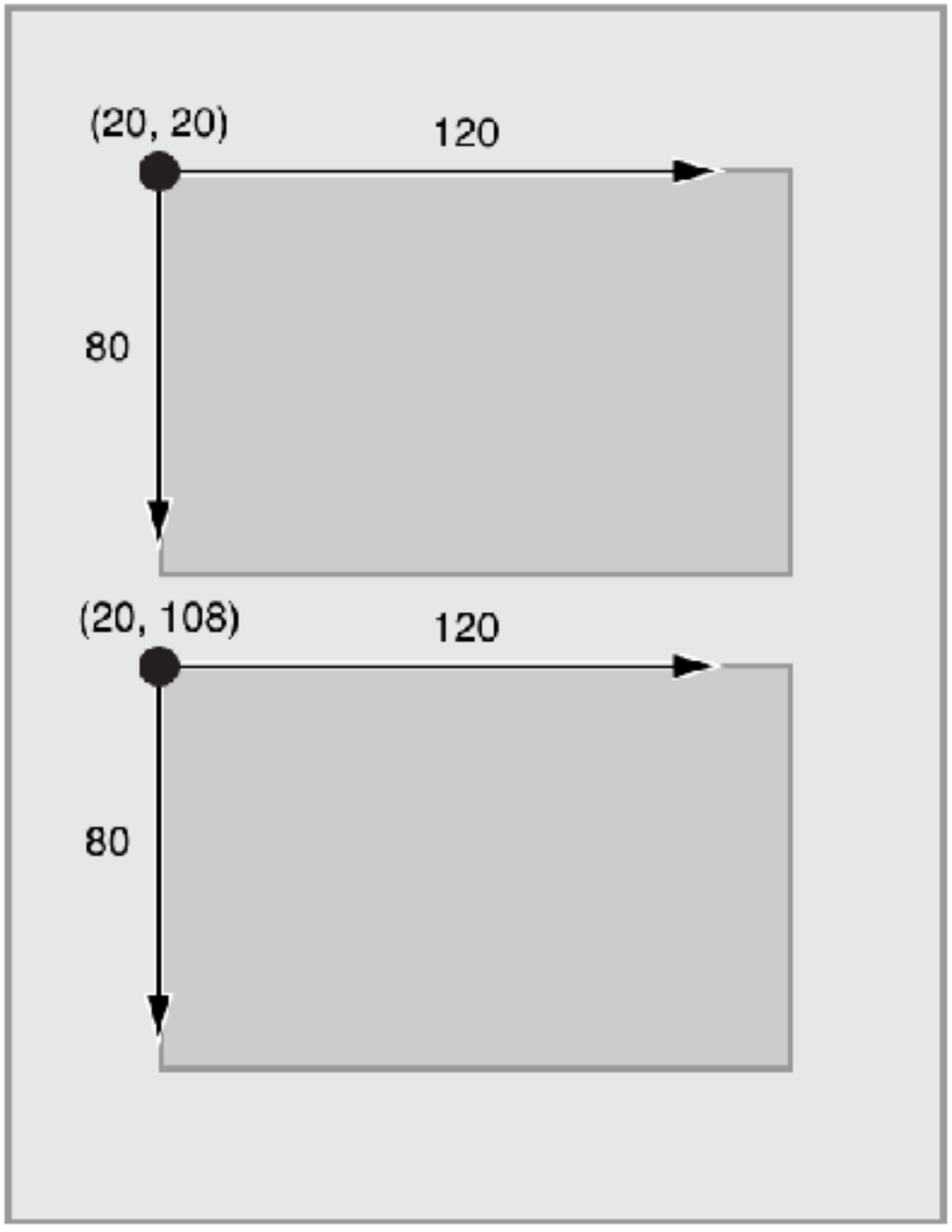
Fast campus

AutoLayout

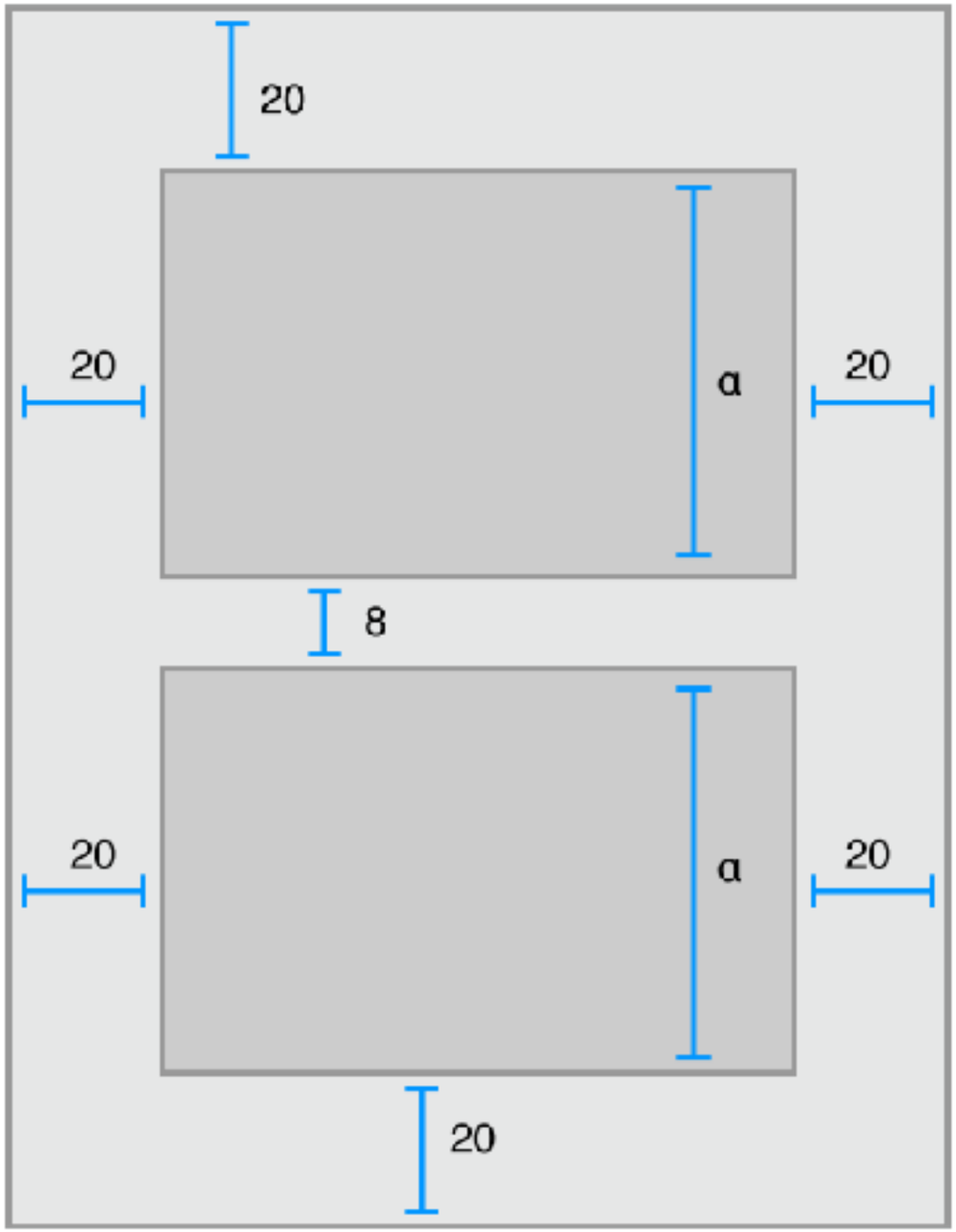
- AutoLayout은 각각의 View의 Size와 위치를 제약사항을 통해서 유동적으로 계산하여 표현하는 방법

Auto Layout VS Frame-Based Layout

Frame-Based Layout



Auto Layout

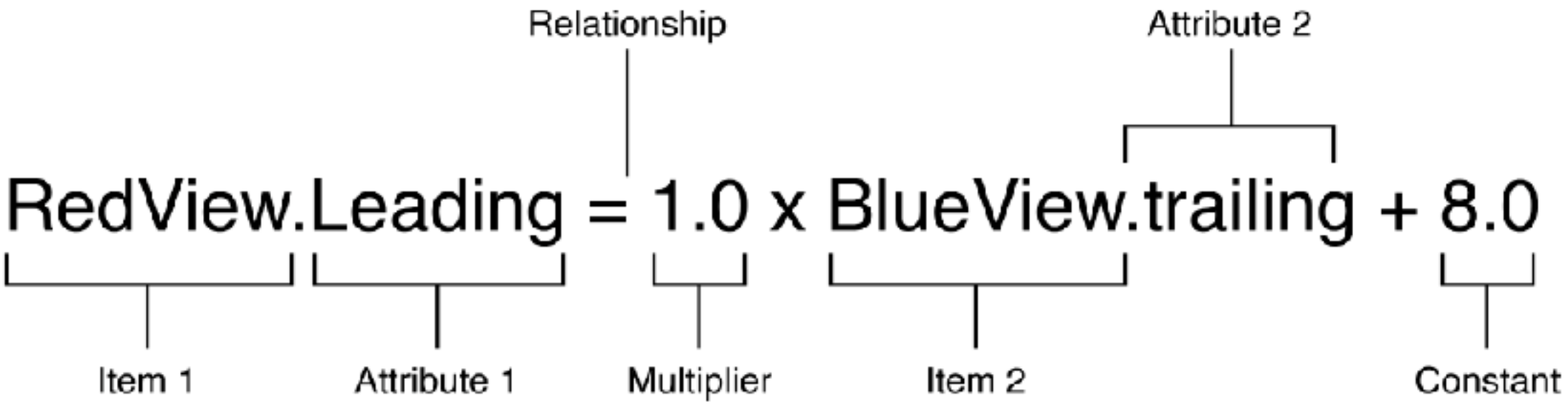


Fast campus

Constraint(제약)

- 각 View의 거리, 길이, 위치 등을 표현하기 위한 제약

Constraint

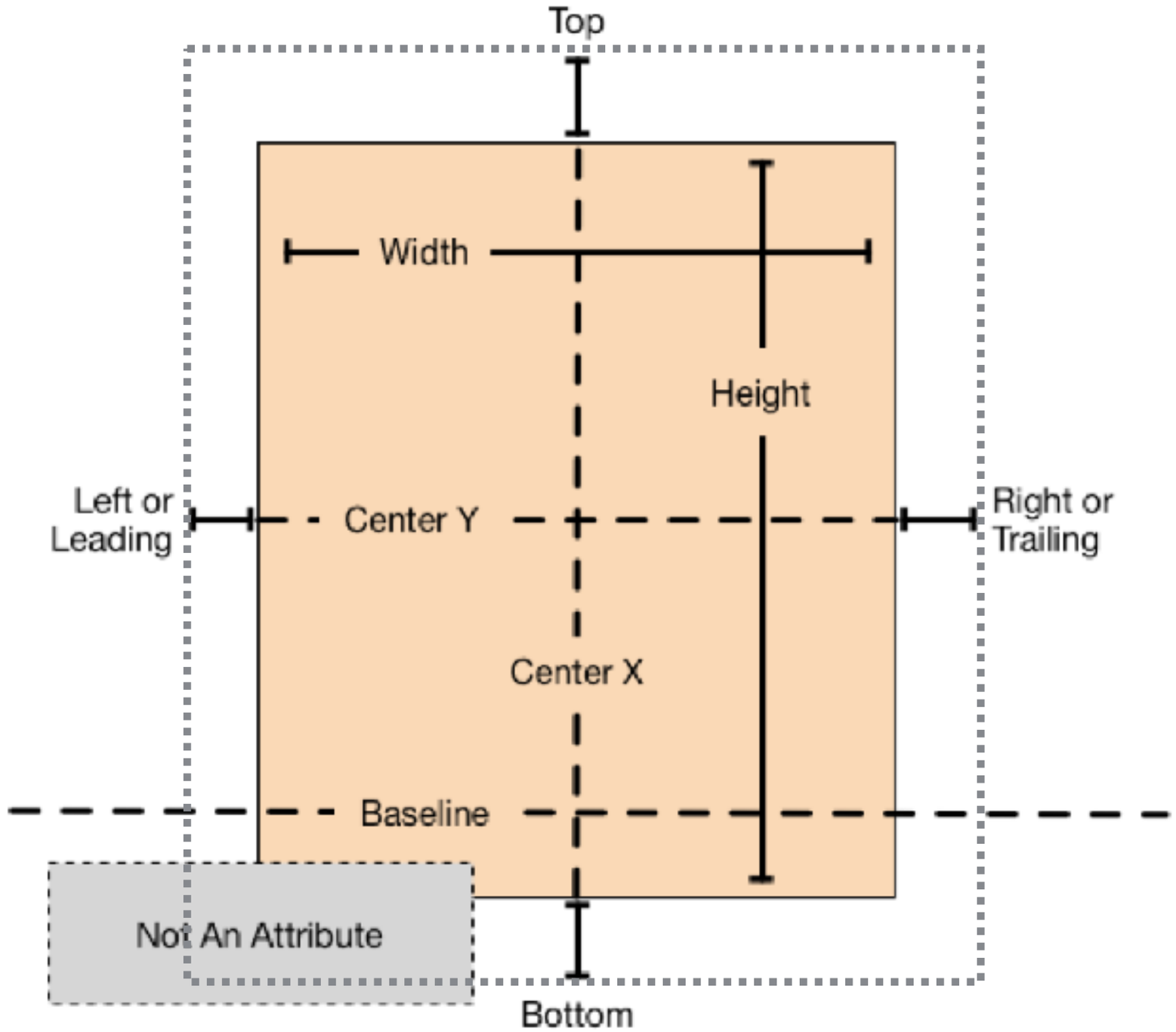


- Multiplier : 비율을 통한 레이아웃 설정을 위한 속성
- Constant : 일정한 간격을 유지하기 위한 속성

Fast campus

Attribute(속성)

- Size attributes
  - ✓ width
  - ✓ height
- Location attributes
  - ✓ Leading
  - ✓ Trailing
  - ✓ Top
  - ✓ Bottom
  - ✓ Vertical
  - ✓ Horizontal



Fast campus

Constraint 공식

대상 View의 Attribute는 기준View의 Attribute X 비율 +간격이다.

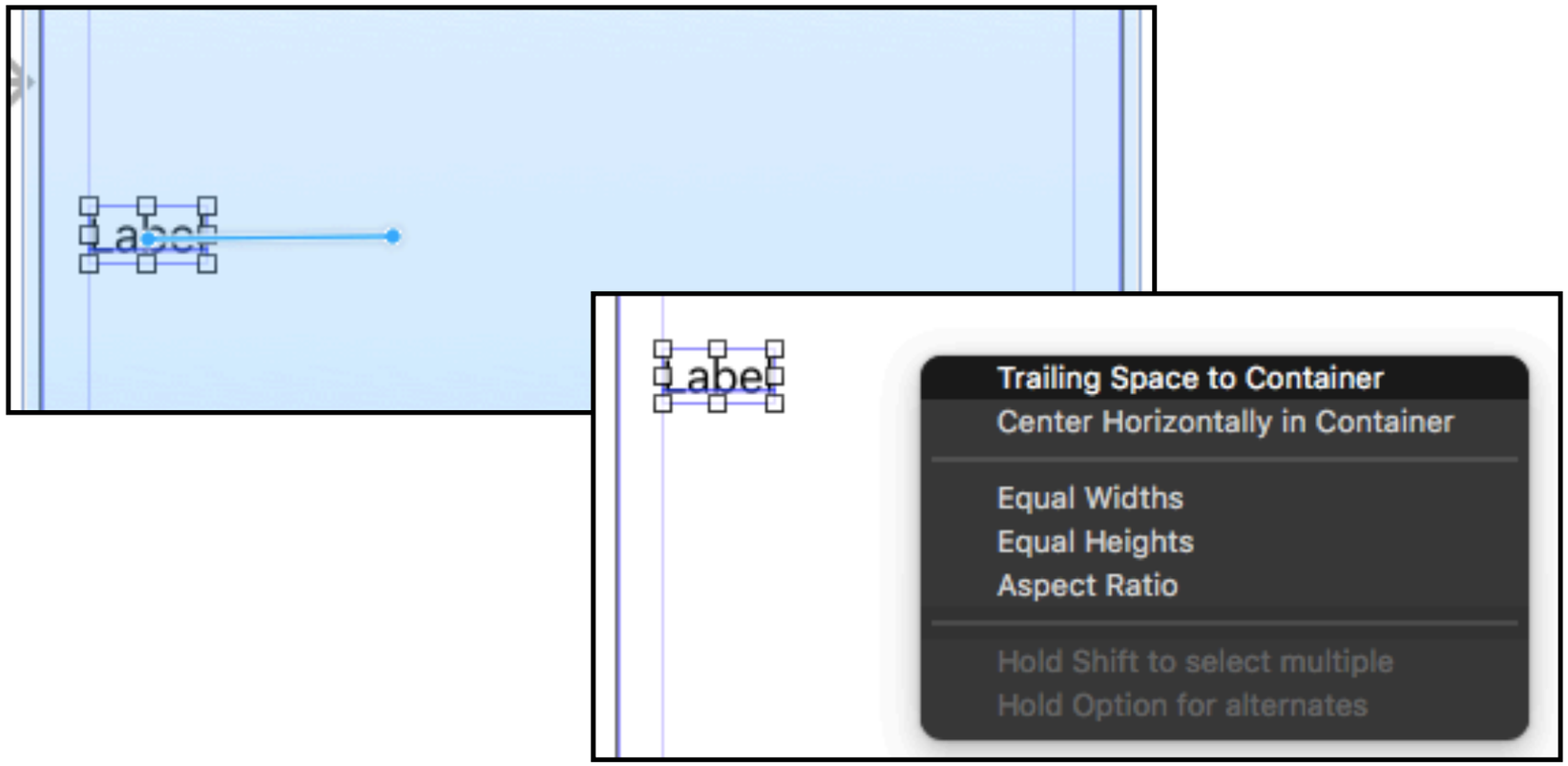
```
Item1.Attribute = 비율 X Item2.Attribute + 간격
```

제약사항 만들기

강사 주영민

Using Stroyboard

Control + Drag

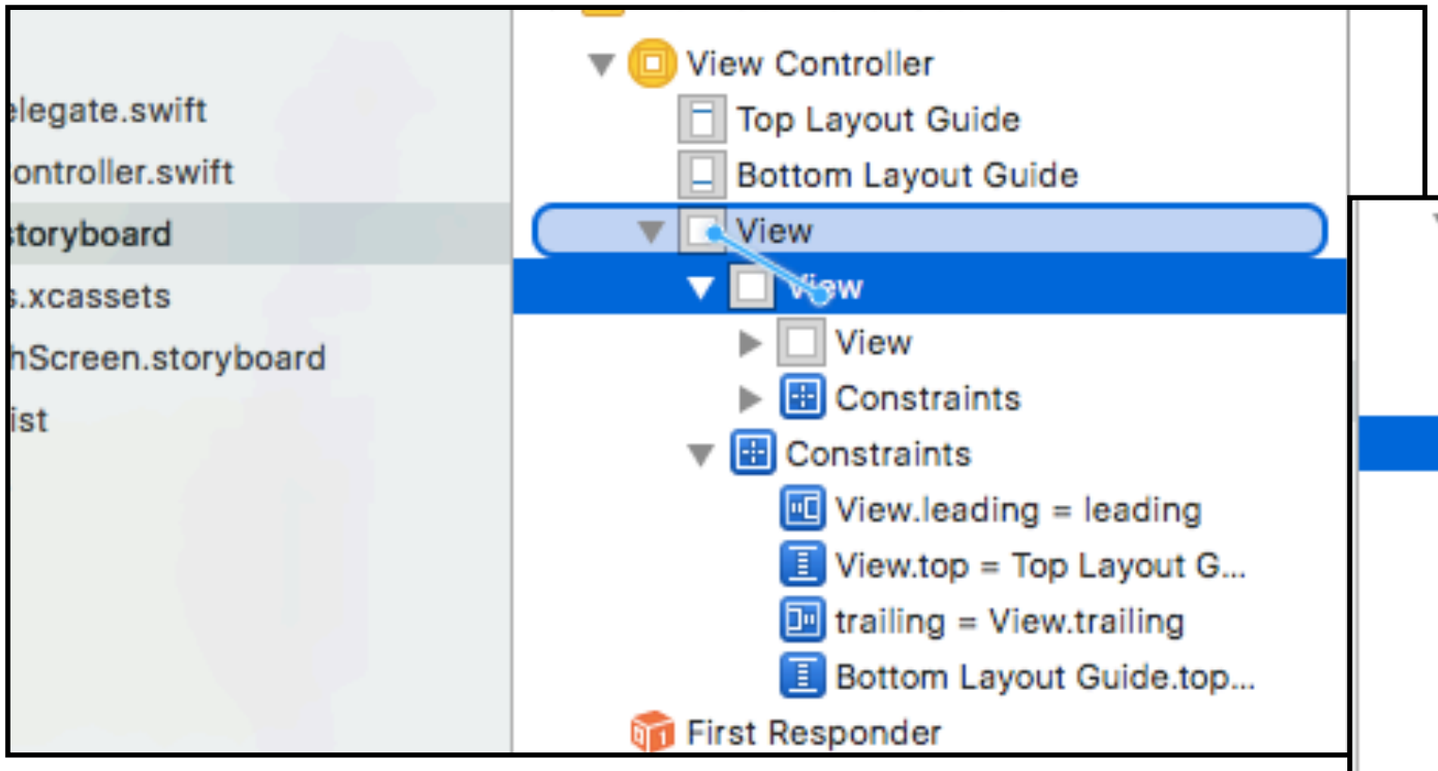


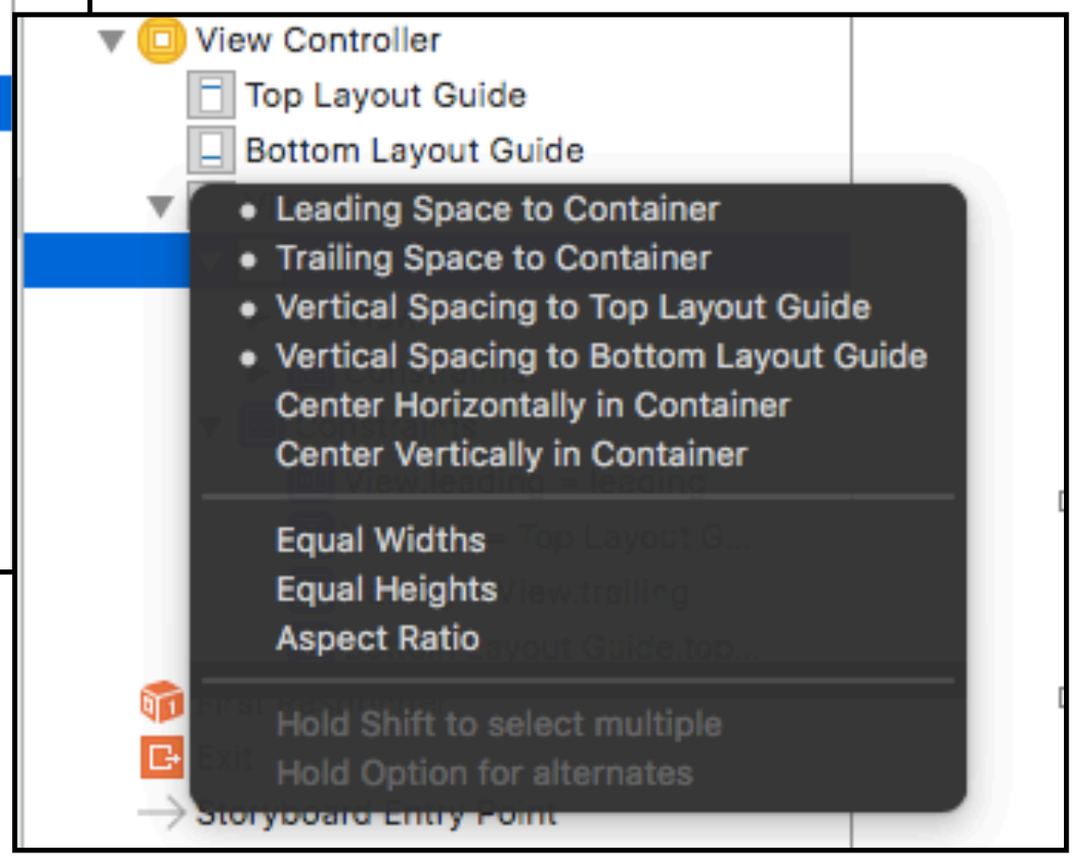
✓ drag의 위치와 방향에 따라 다른 제약 메뉴가 나타난다.

Fast campus

Using Stroyboard

Control + Drag





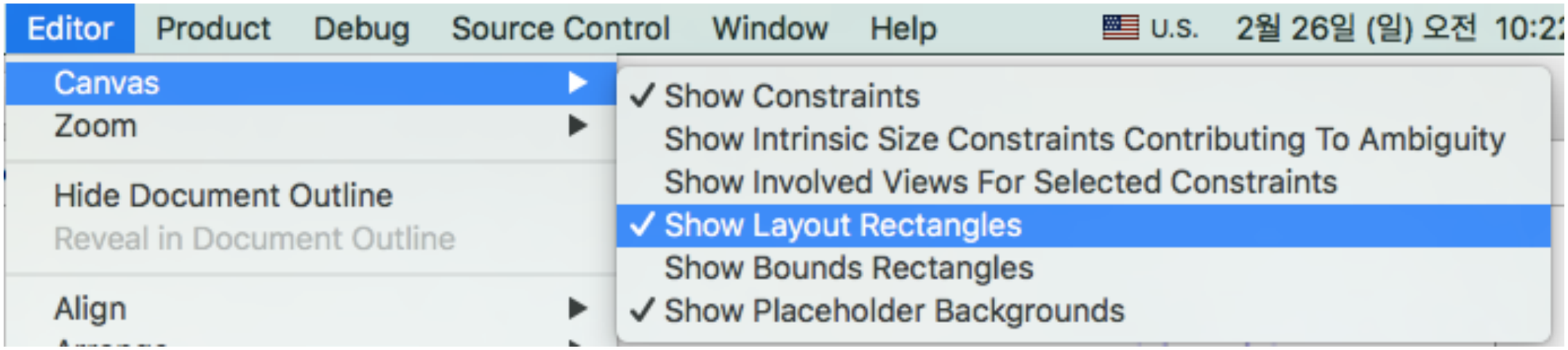
✓ drag의 위치와 방향에 따라 다른 제약 메뉴가 나타난다.

Fast campus

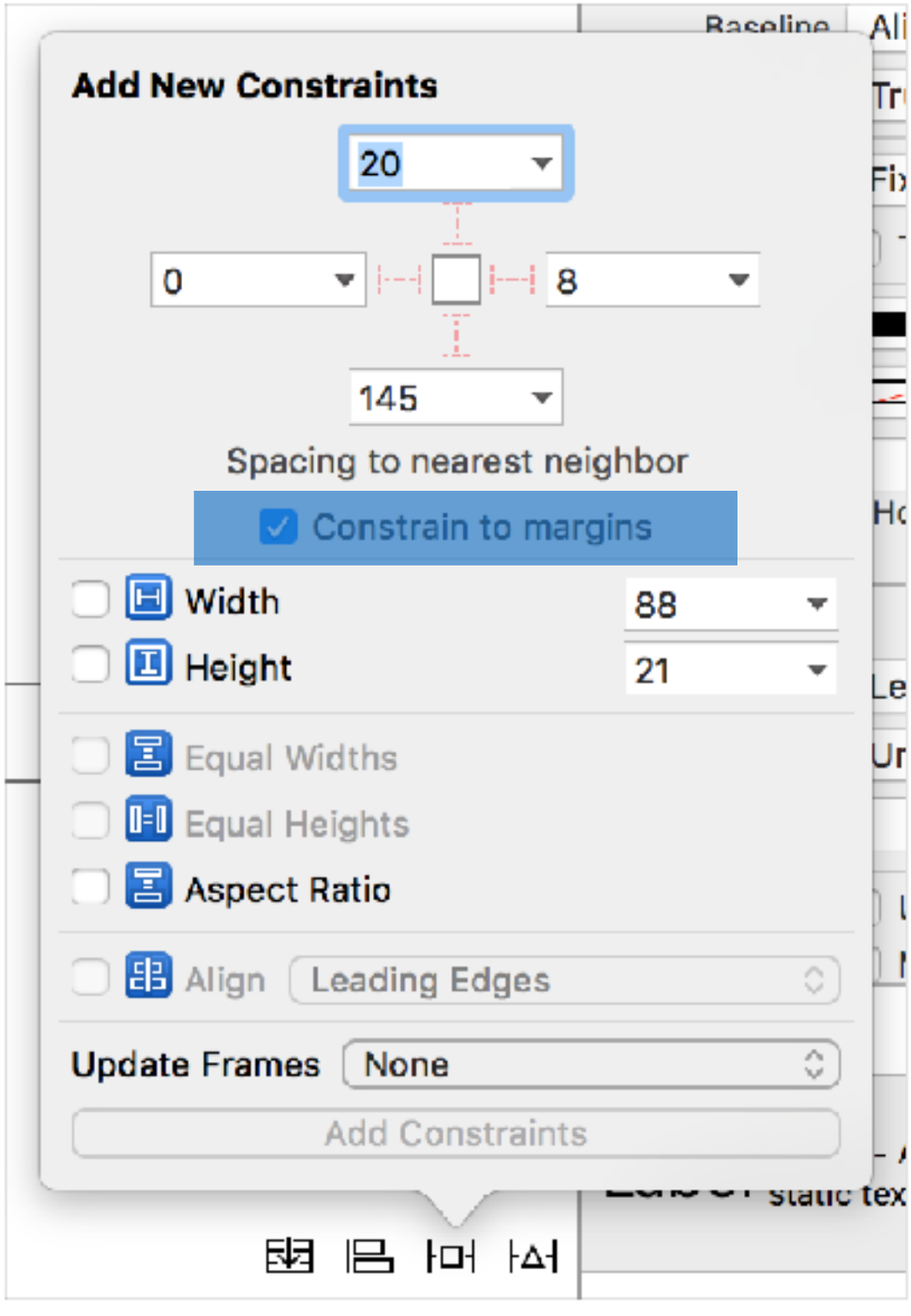
Layout margin

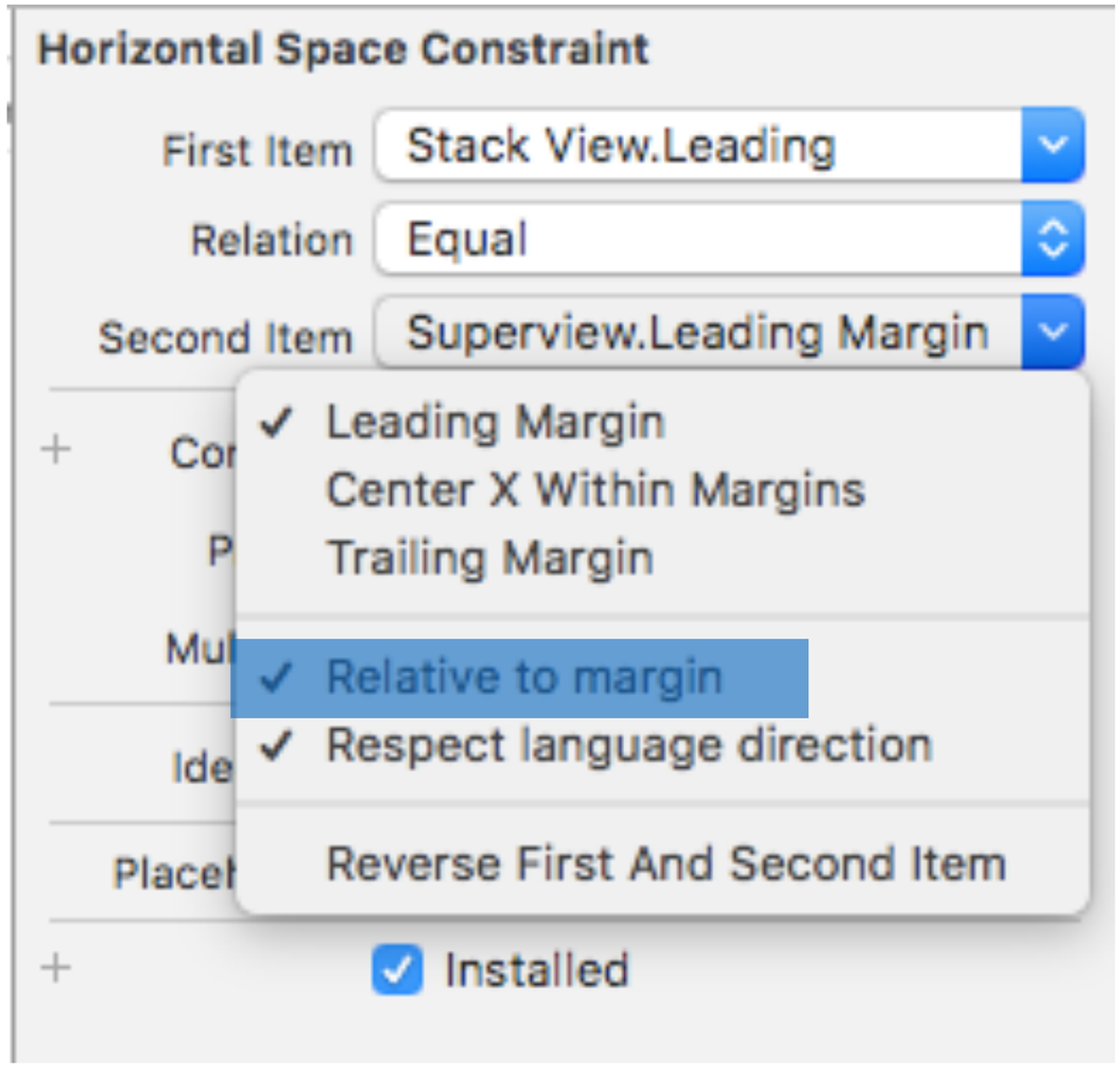
- SuperView의 가장자리와 SubView와의 간격이 유지되도록 설정된 내부 패딩값
- 기본적으로 UIView의 내부에 8Point의 여백을 가지고 있다.
- Interface Builder에서는 변경할수 없으며, UIView.layoutMargins 프로퍼티를 통해 변경 가능하다.

Show Layout Margin



Layout Margin 제거



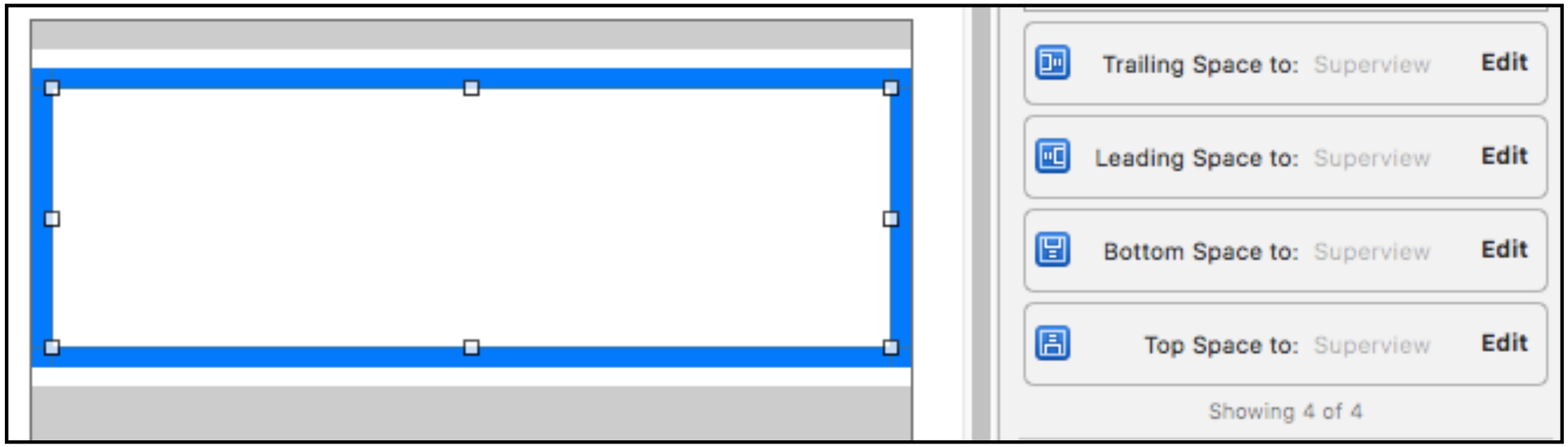


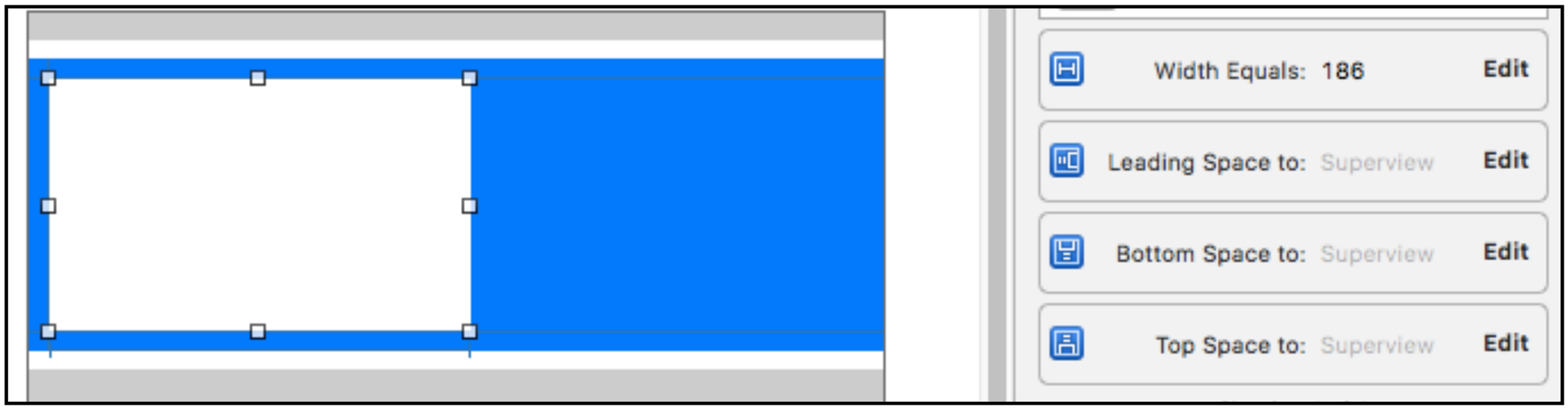
Fast campus

제약사항 만들기 팁

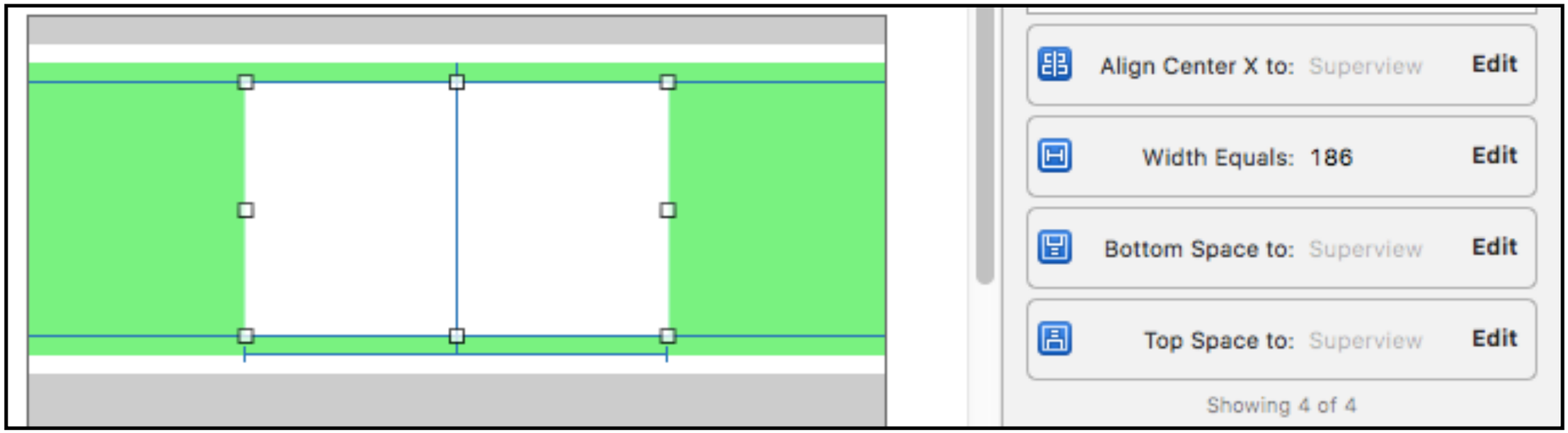
- 각 View의 주변 모든 제약사항이 만족해야된다.
- 가로제약, 세로제약을 확인
- 중복된 제약은 제거한다.
- 화면 배치의 기준 View를 정해서 연관된 제약사항을 만들시 수정에 따른 변경 고려

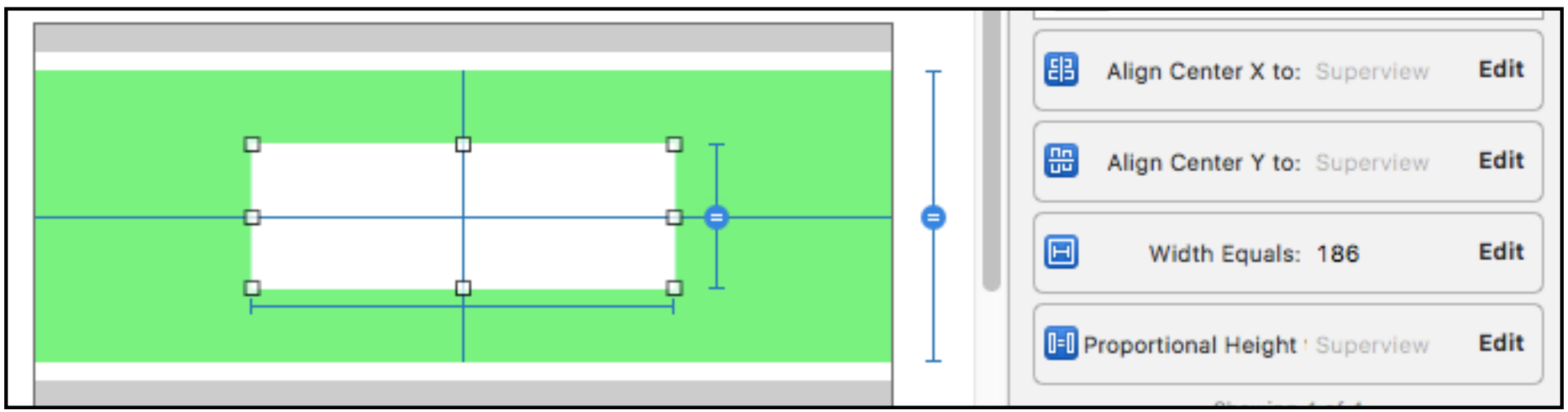
예제





예제

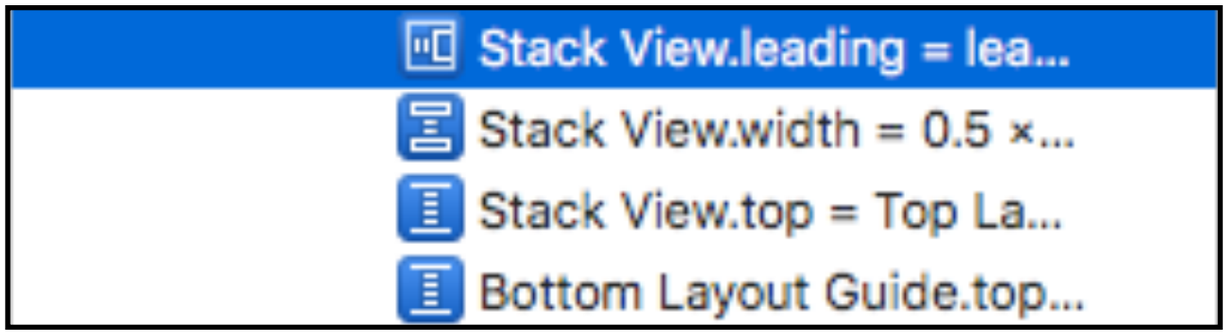


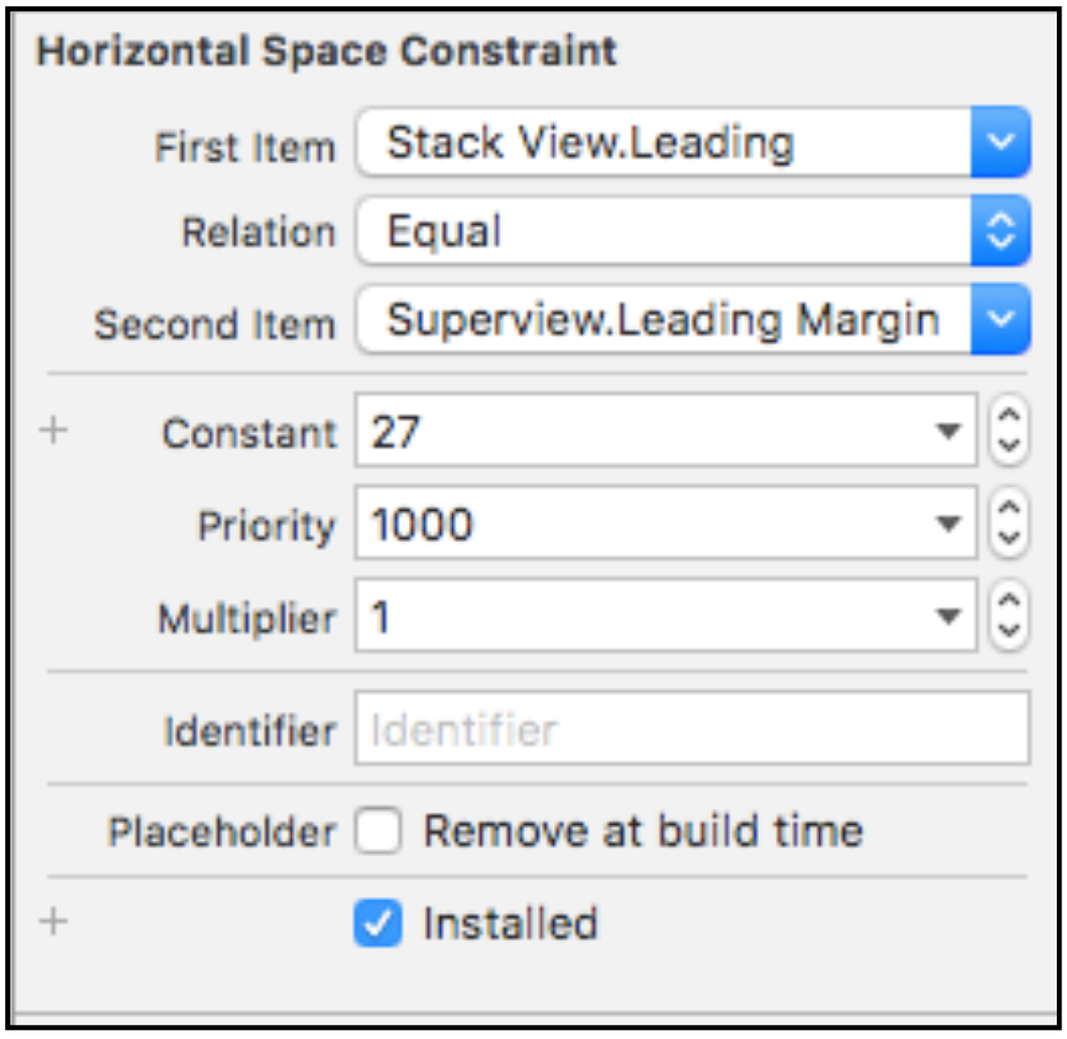


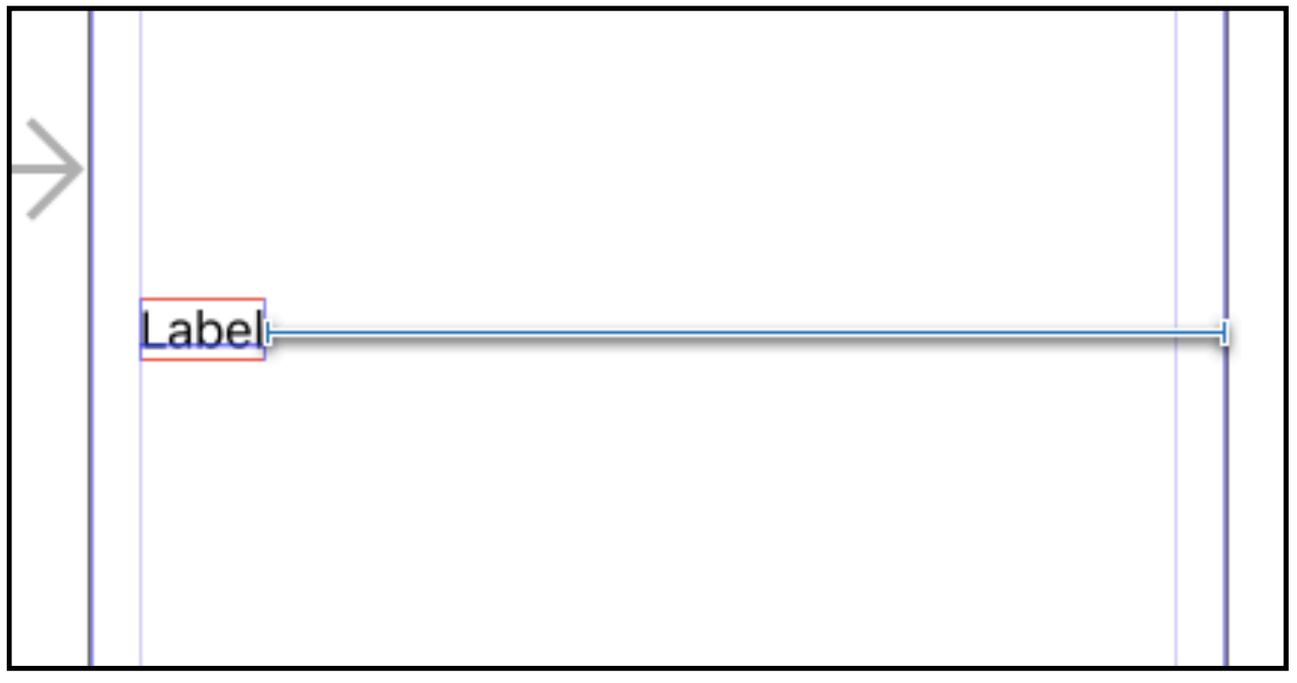
제약 설정

강사 주영민

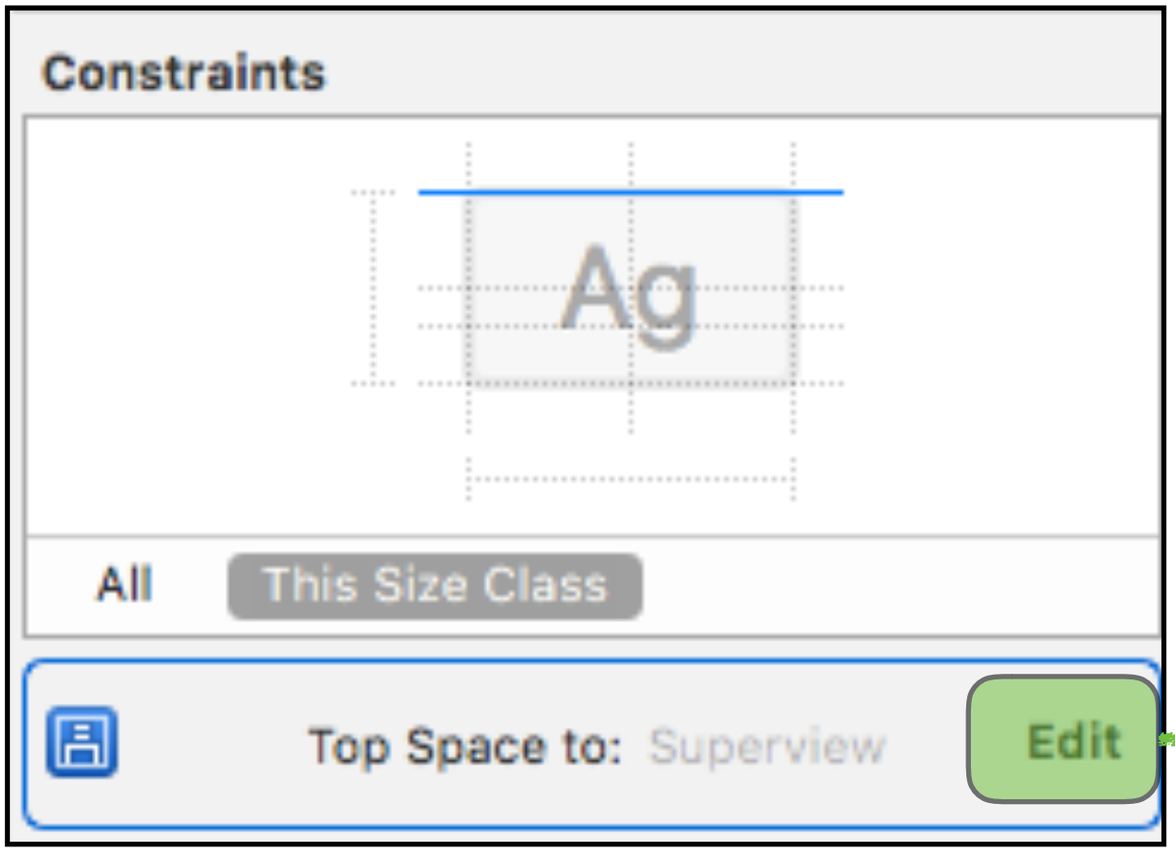
constraint 선택 설정

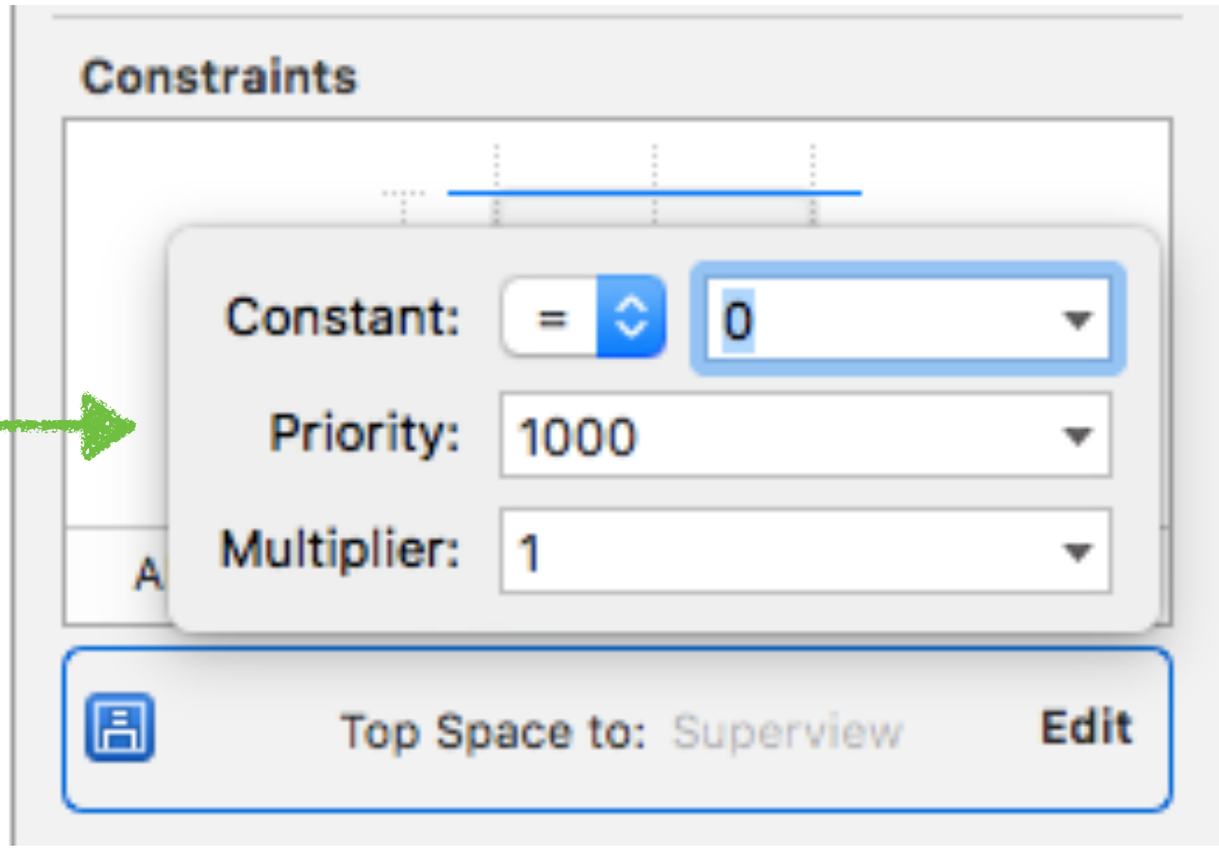




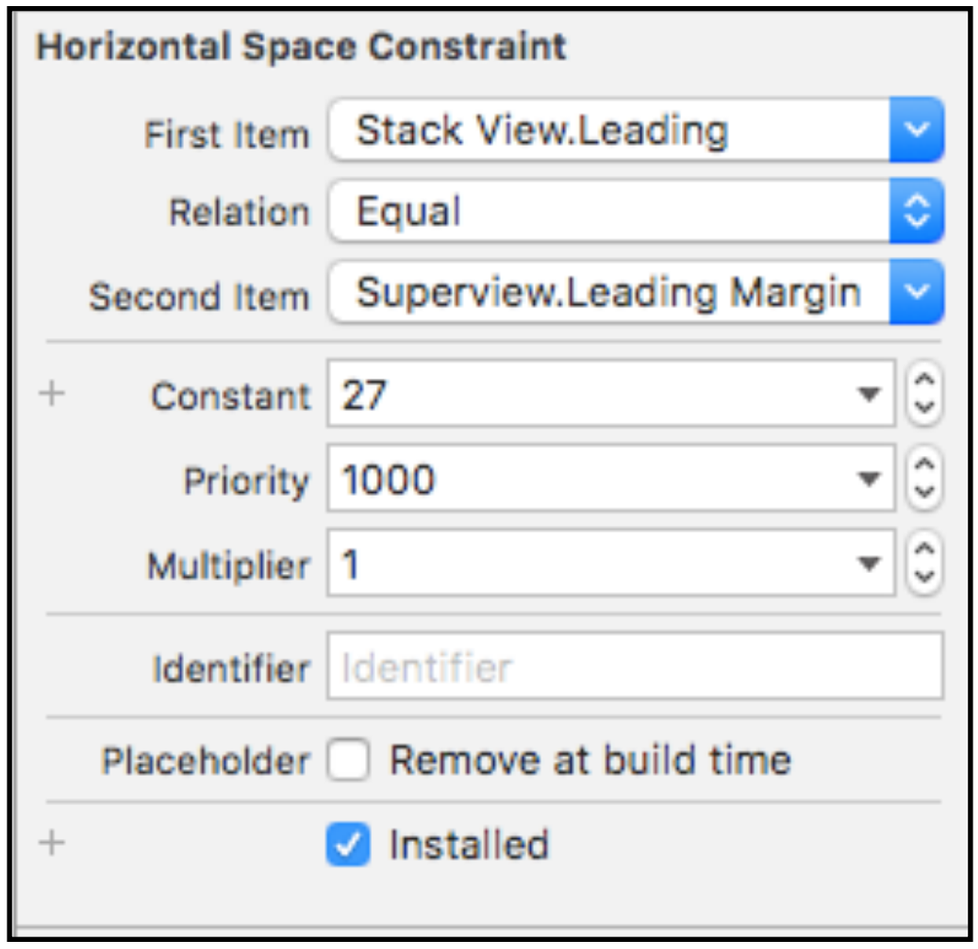


constraint Edit 버튼 설정





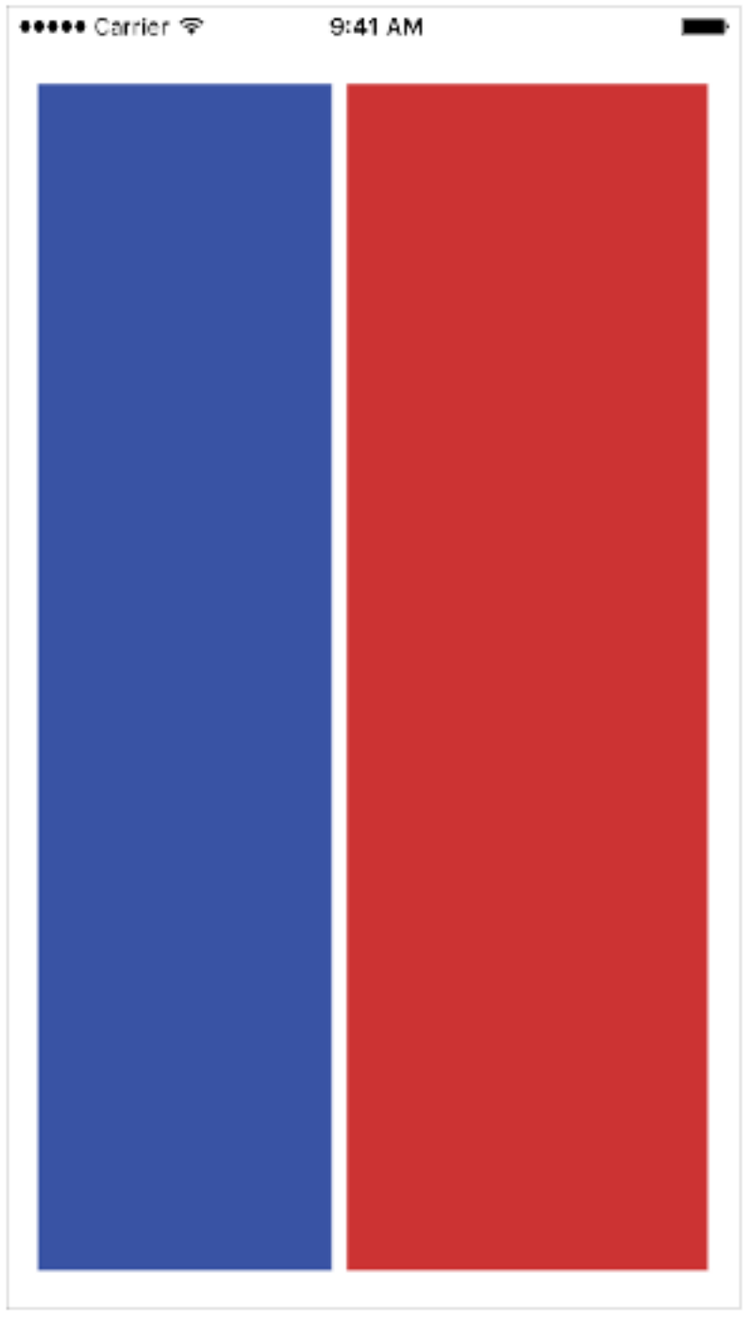
설정 방법




```
Item1.Attribute = Multiplier X Item2.Attribute + Constrant
```

* 같은 Priority에서 같은 제약이 존재 할수 없다.

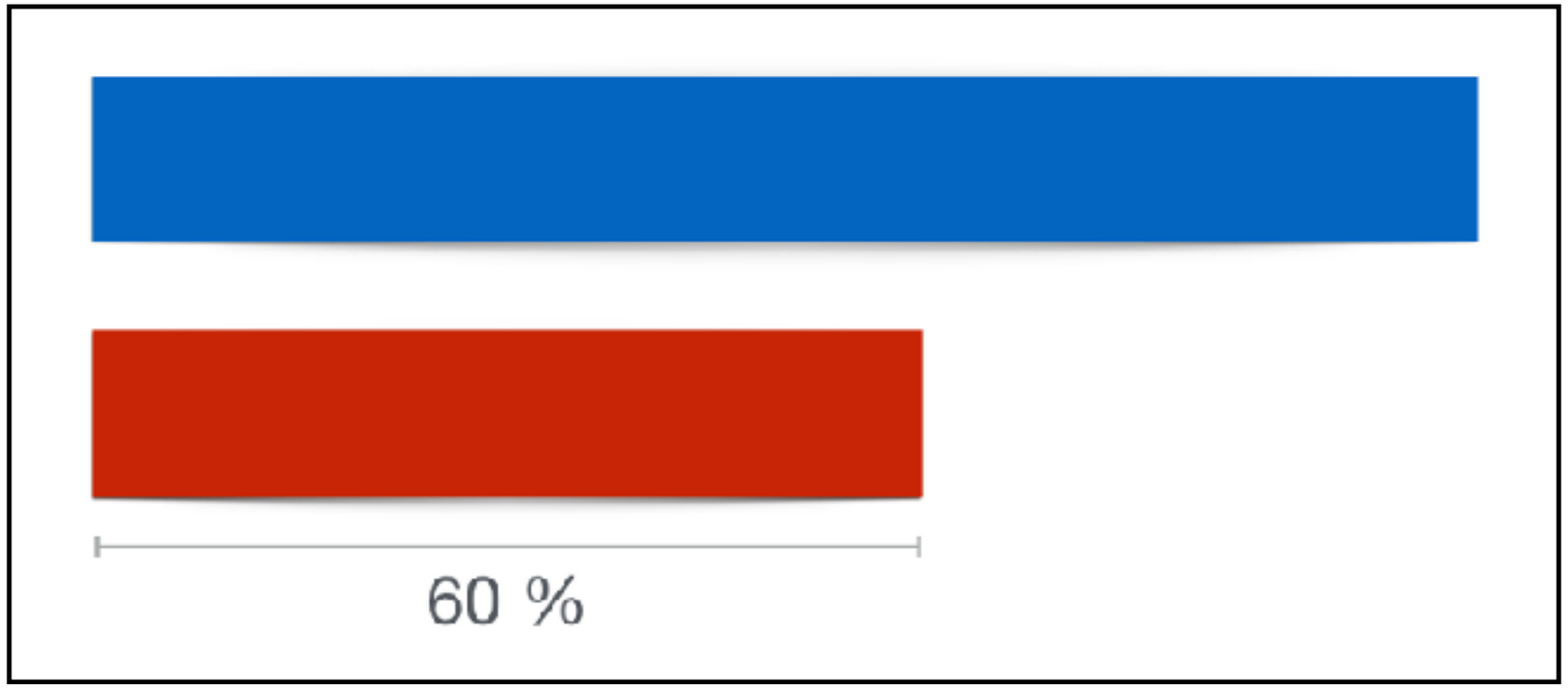
실습



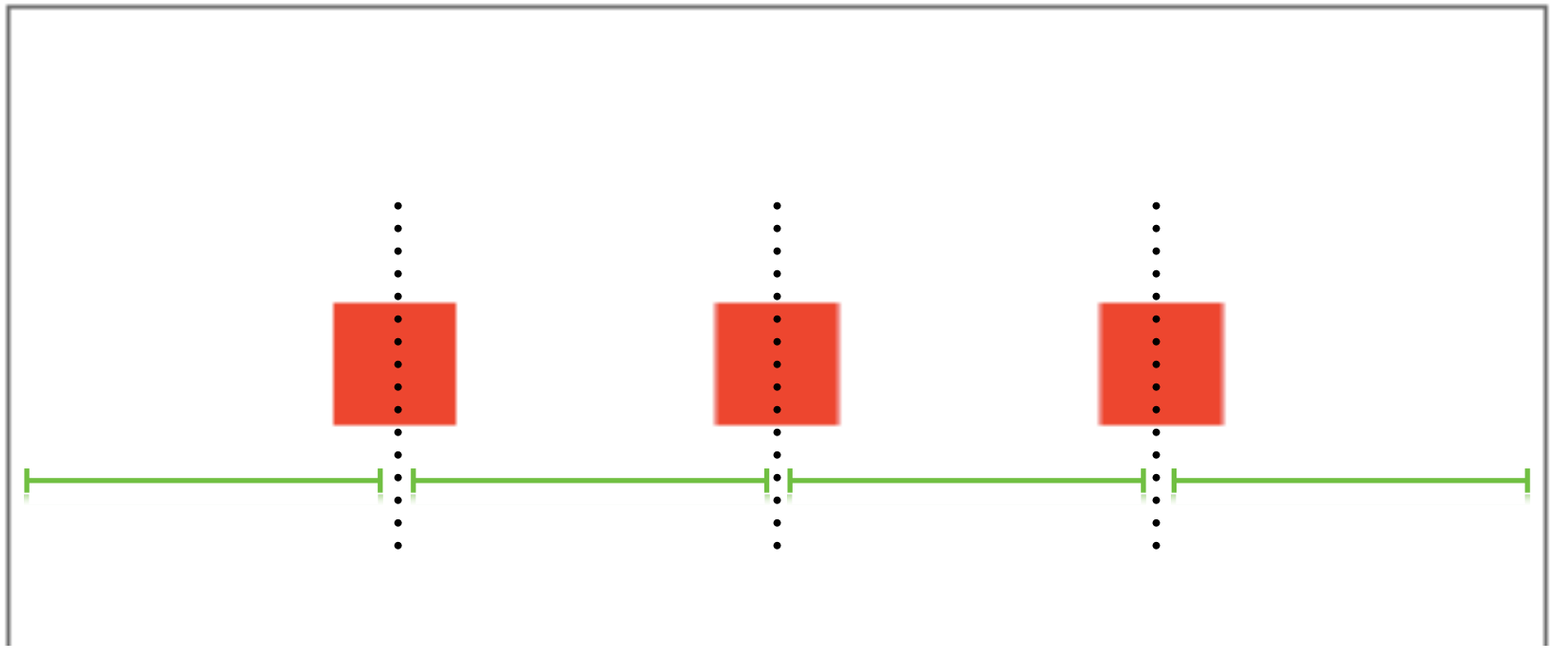
- Red View의 넓이가 Blue View의 넓이의 두 배

실습

- redView의 길이가 BlueView의 60퍼센트 길이



실습 : 동일한 간격 View



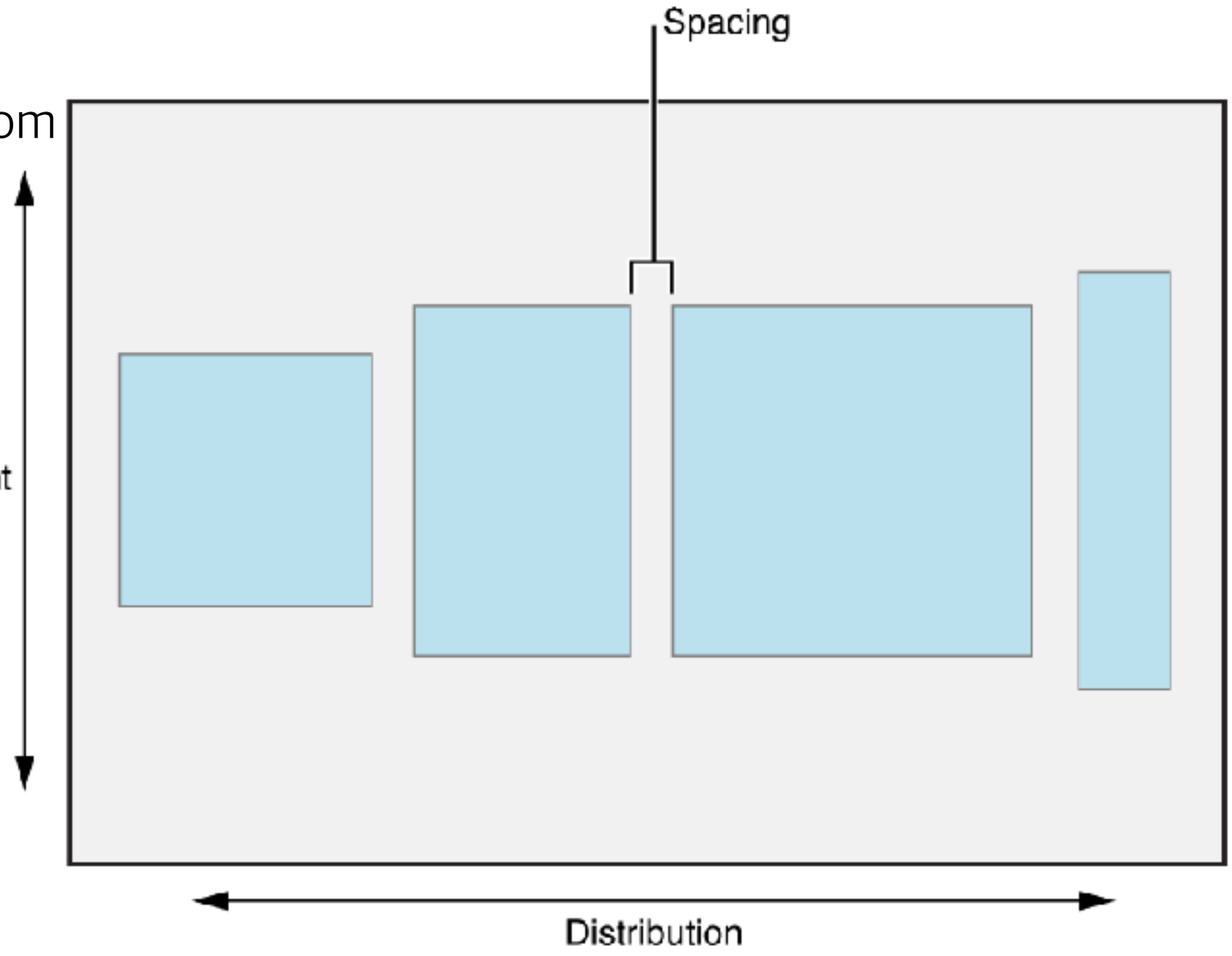
- 한변이 30point인 정사각형
- superView의 삼등분 지점에 센터가 위치

StackView

- 제약없이 View를 자동배치
- StackView의 하위뷰로 추가시 Option에 따라 View가 자동으로 배치
- iOS9이후에 사용 가능
- Horizontal Stack View와 Vertical Stack View로 나눠져 있다.

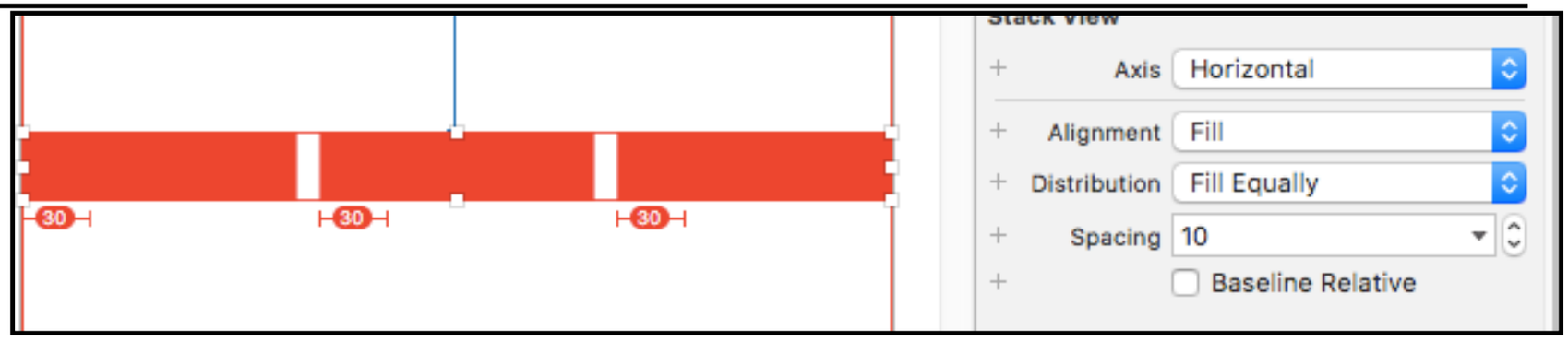
StackView 구조

- Alignment
  - Fill, Top, Center, Bottom
- Distribution
  - Fill,
  - Fill Equally,
  - Fill Proportionally,
  - Equal Spacing,
  - Equal Centering

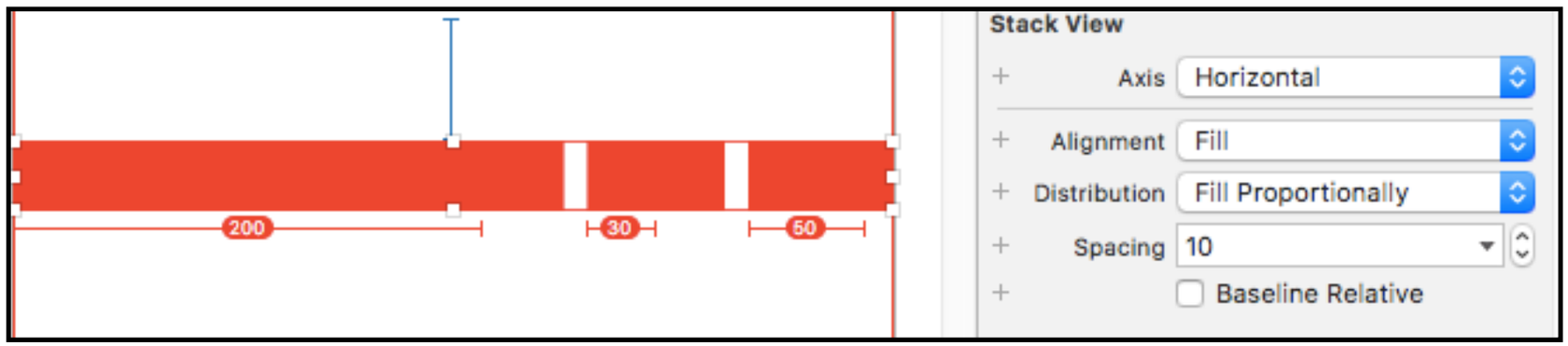


StackView Distribution

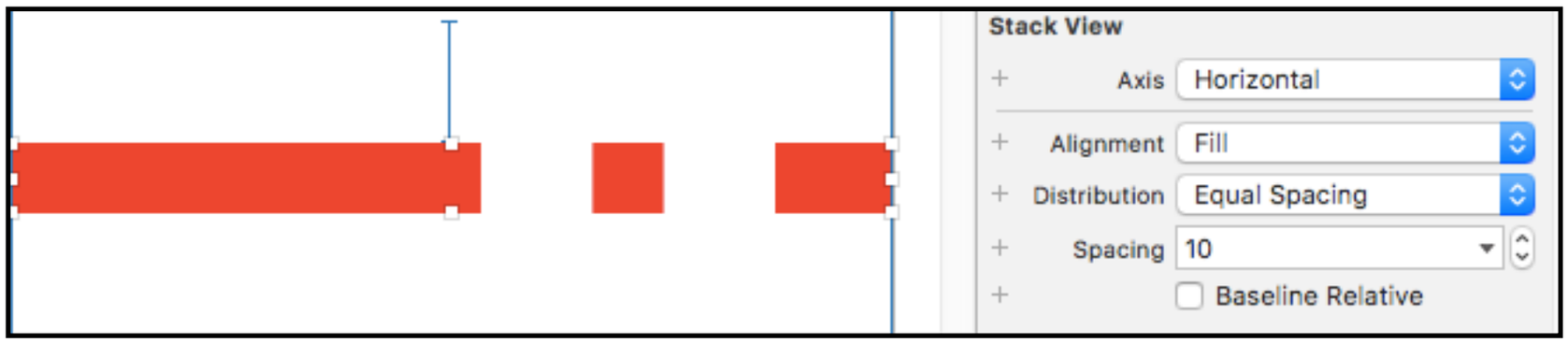
- Fill Equally,



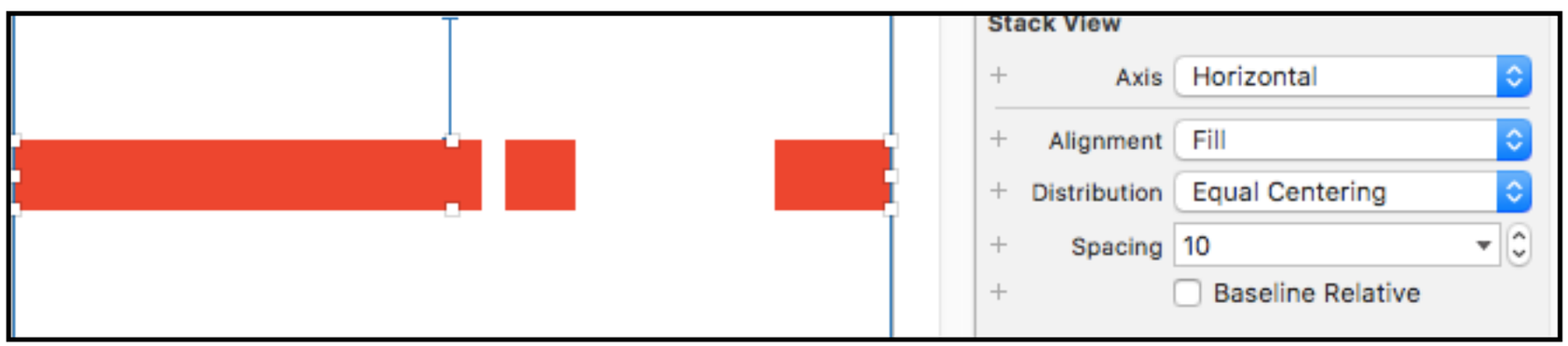
- Fill Proportionally,



- Equal Spacing,



- Equal Centering



Fast campus

실습

- 어떻게 만들어야 할까요?