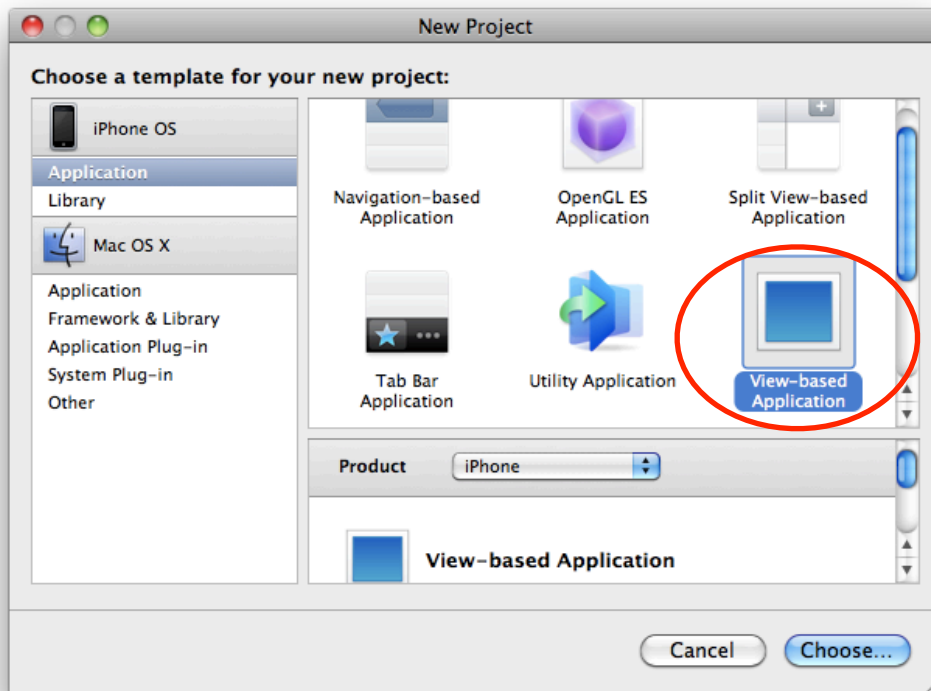


# Lab ViewSizing

Step1. 在File開啓一個新的project, 在Application目錄裡面選擇 view based application, 將project命名為 lab\_ViewSizing

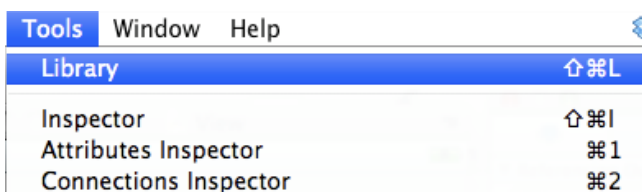


Step2. 在lab\_ViewSizingViewController.h中加入我們要做Sizing的View, 回到Size的original button, 變大變小的bigger button和smaller button, 以及三個button按下後對應的interface builder action. 並加入一個作為判斷original size的CGRect.

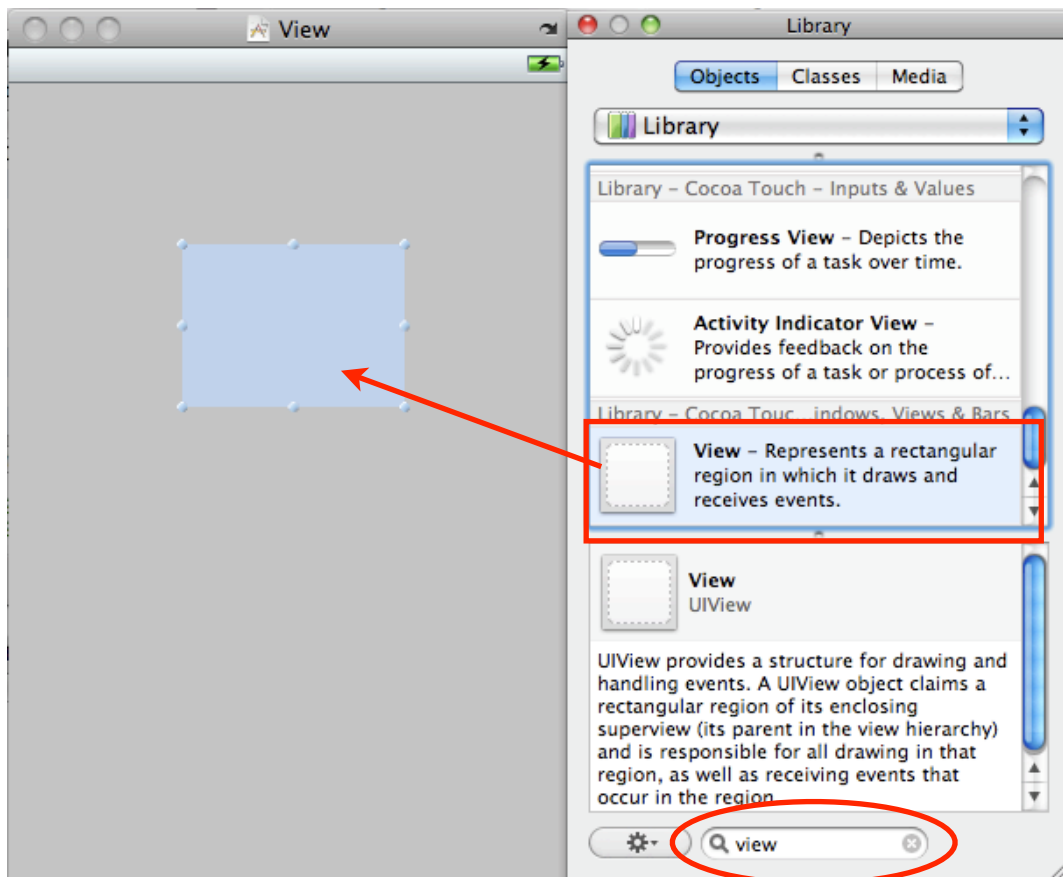
```
#import <UIKit/UIKit.h>
```

```
@interface lab_ViewSizingViewController : UIViewController {
    IBOutlet UIView * targetView;
    IBOutlet UIButton * originalButton;
    IBOutlet UIButton * biggerButton;
    IBOutlet UIButton * smallerButton;
    CGRect orgSize;
}
-(IBAction) originalButtonPressed;
-(IBAction) biggerButtonPressed;
-(IBAction) smallerButtonPressed;
@end
```

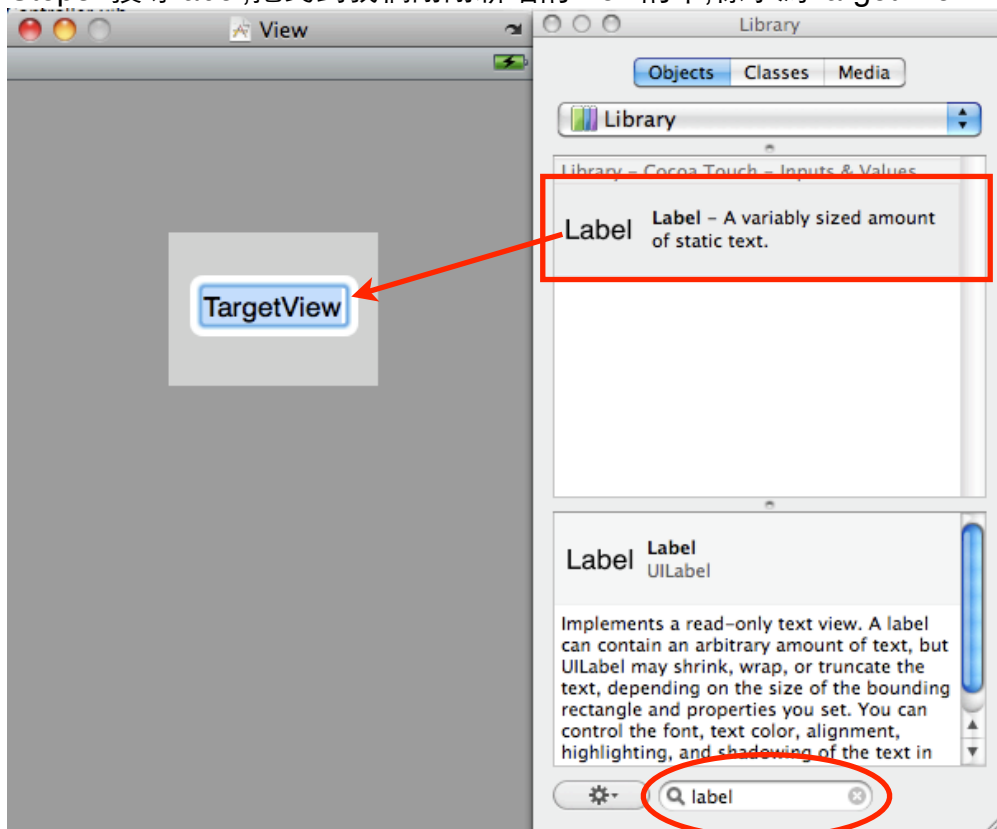
Step3. 點選左邊Groups & Files的視窗中的Resources->lab\_ViewSizingViewController.xib, 並在Tools裡面開啓Library



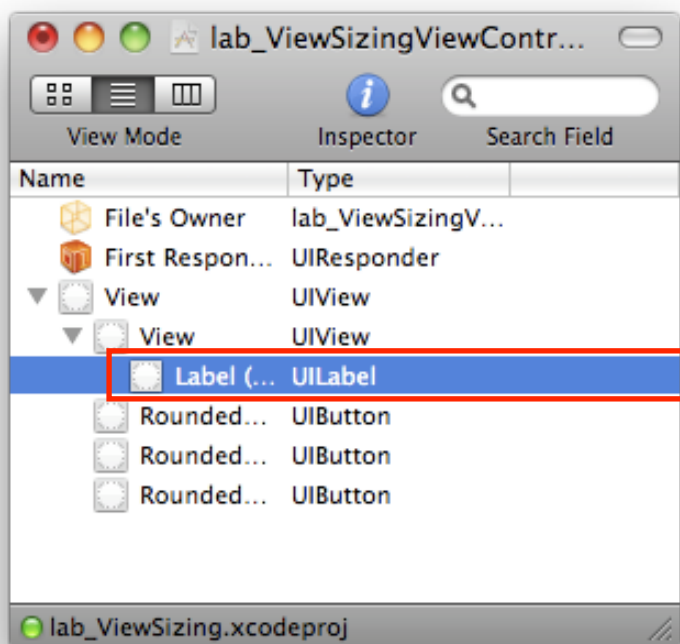
Step4. 在下方搜尋View, 拖曳到我們的View上,並將縮小成我們可觀察到放大縮小的size.






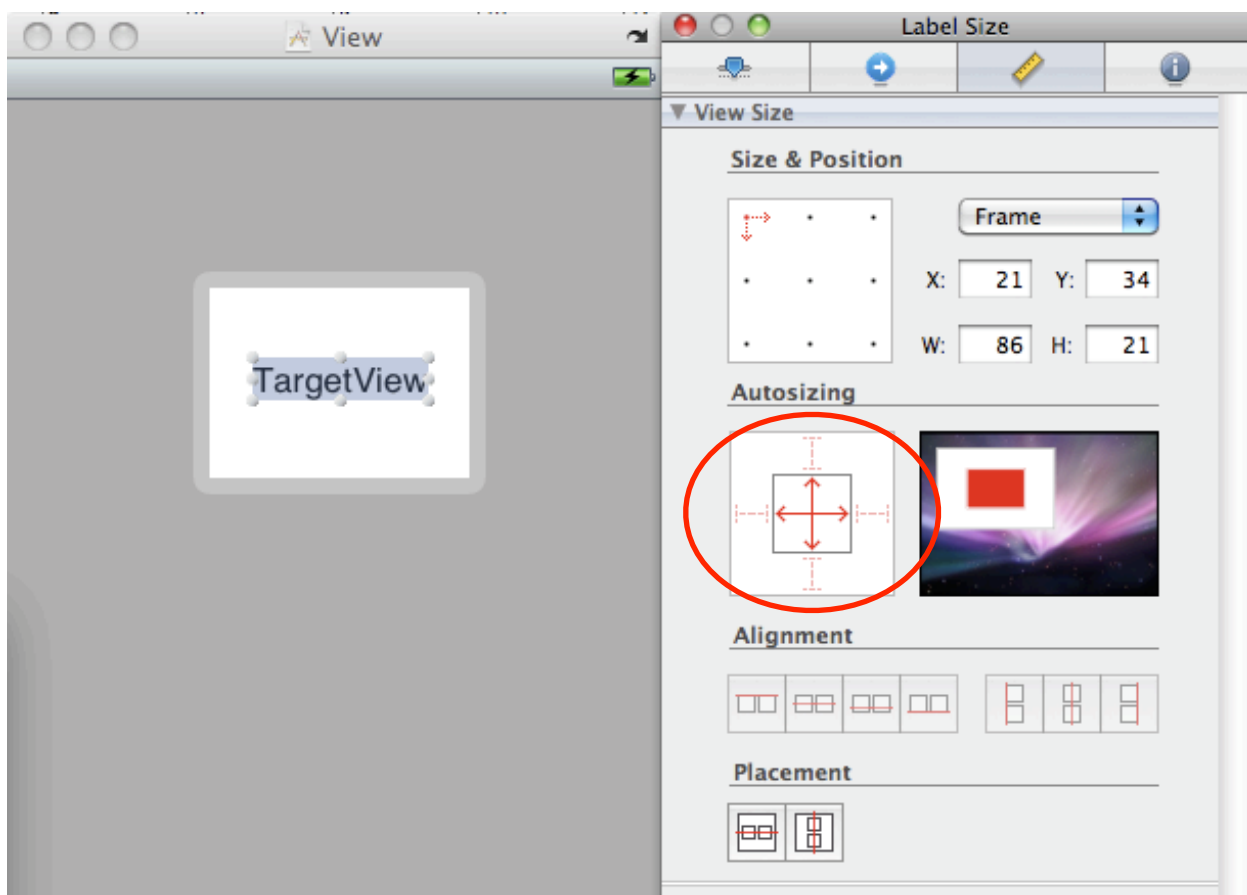
Step5. 搜尋label,拖曳到我們剛剛新增的View的中,標示為Target View



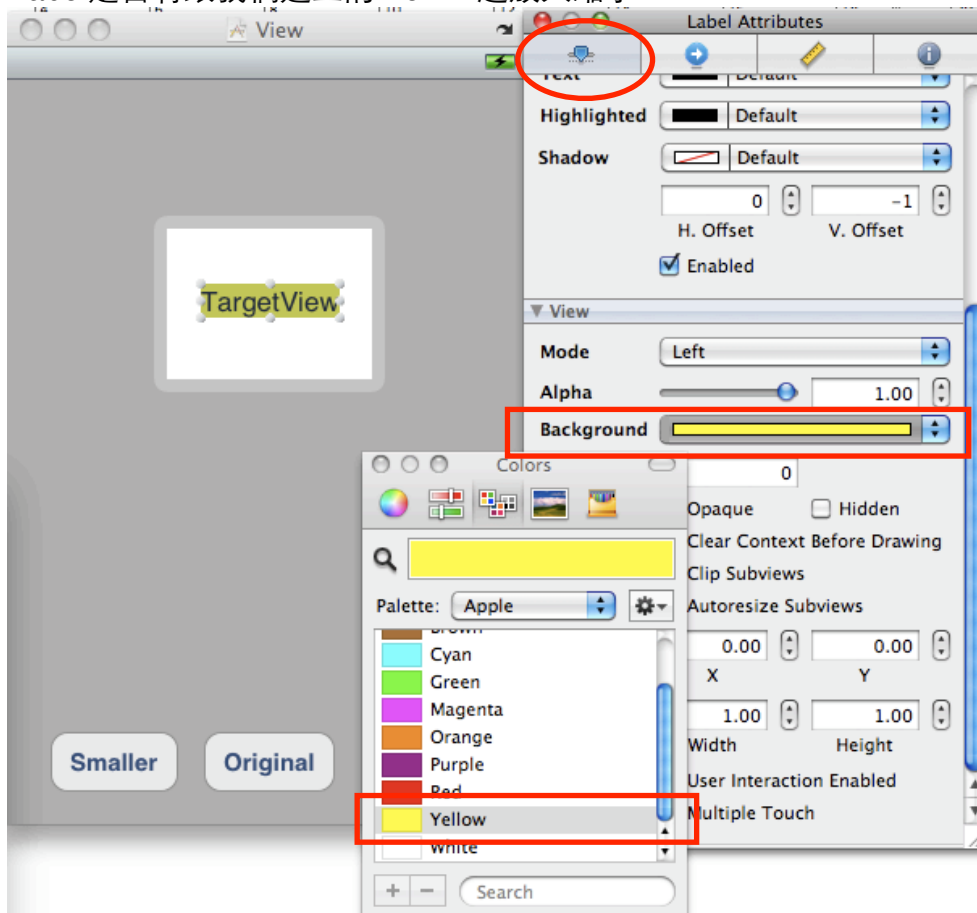
Step6. 在lab\_ViewSizingViewController視窗裡的View確認階層, 確認Label屬於剛剛新增的View的subview.



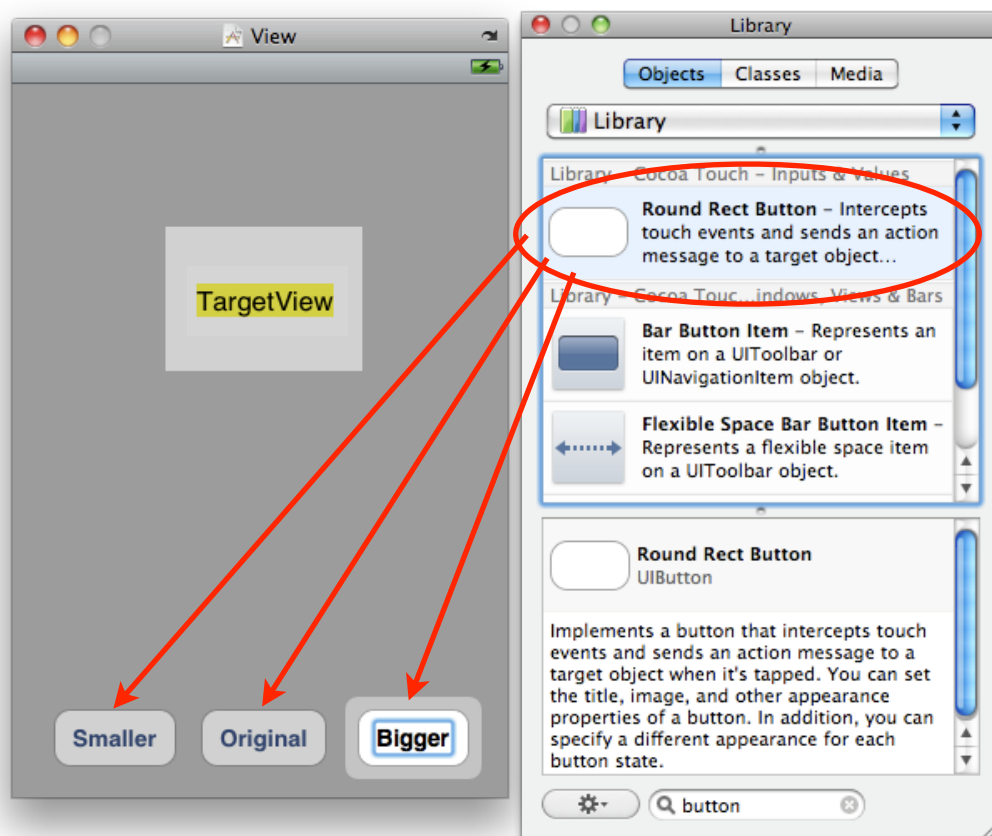
Step7. 點選剛剛新增的Label, 在Inspector裡面的Label Size的Autosizing把四周固定  
superview相對距離的  移掉, 並點選中間的  和  使Label隨superview變大縮小(如下圖)



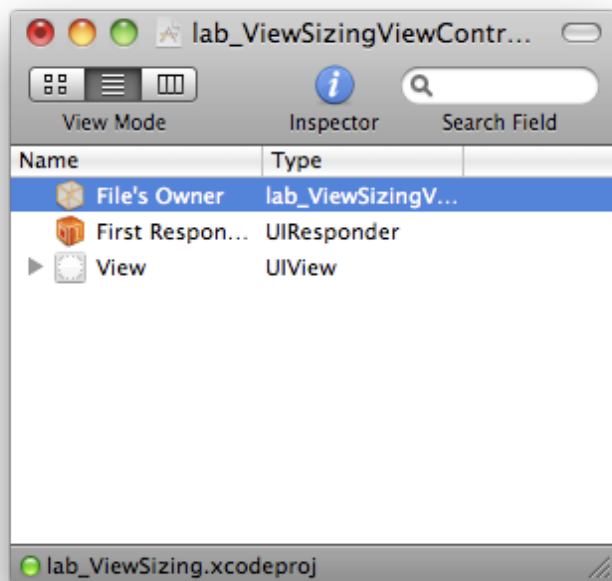
Step8. 在此Label的Label Attributes的Background->Other..., 選擇黃色, 以讓我們容易辨識Label是否有跟我們建立的View一起放大縮小.



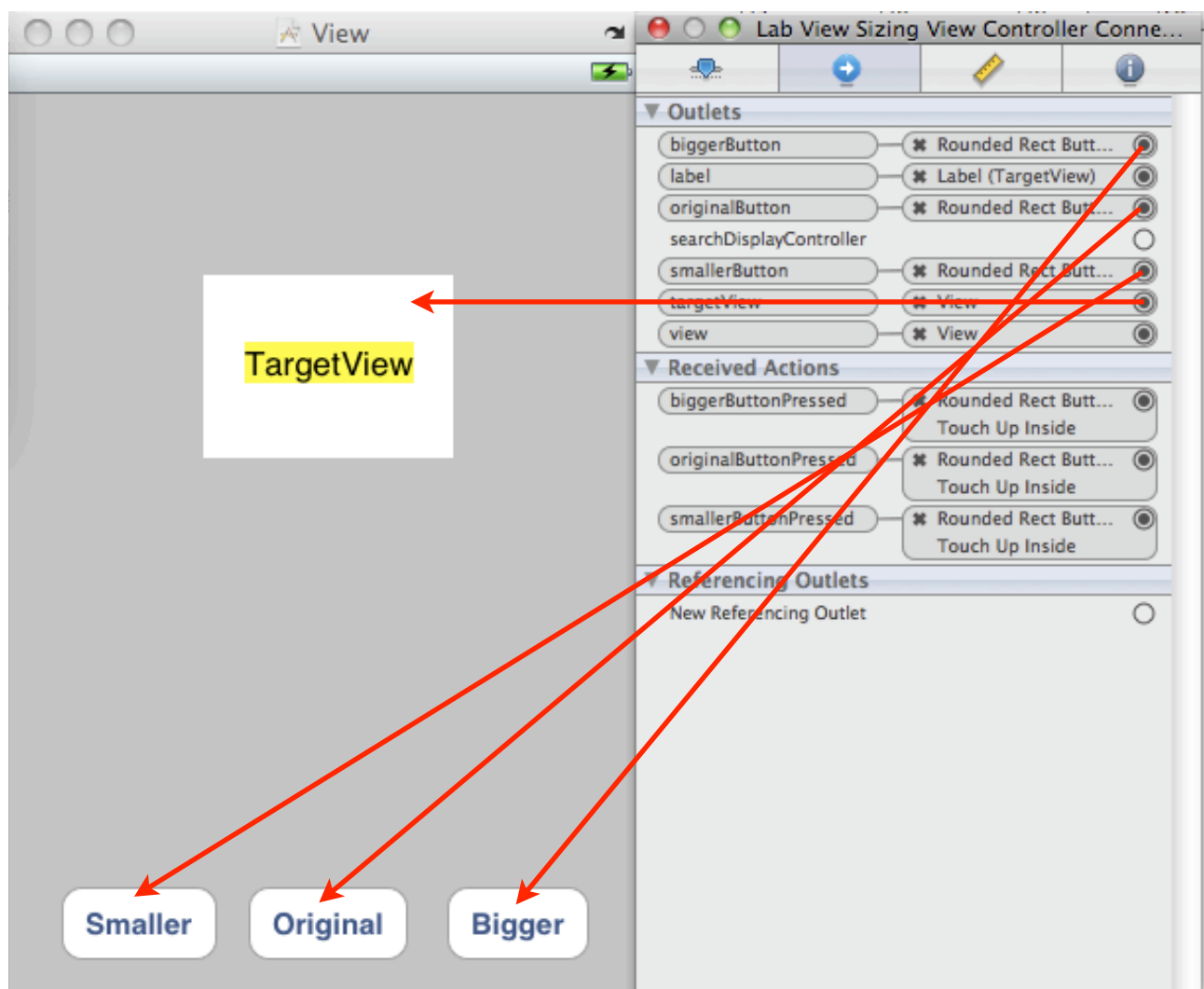
Step9. 再搜尋button,加入三個Round Rect Button, 標示為Smaller, Original, Bigger



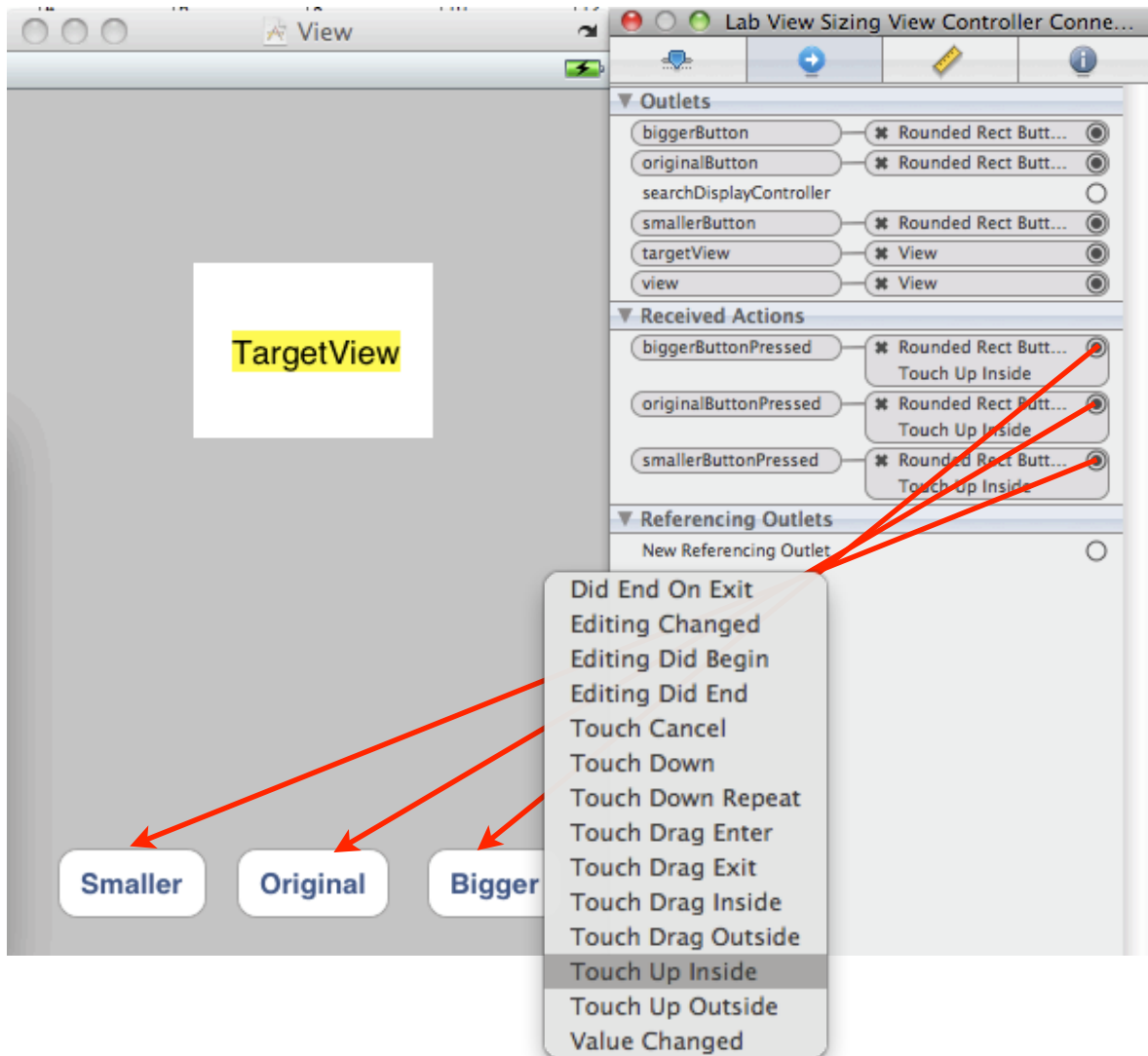
Step10. 在lab\_ViewSizingViewController視窗點File's Owner



連結TargetView到View中我們新增的View(白色部份), 三個UIButton到View中的三個Button.



Step11. 連結biggerButtonPressed, originalButtonPressed, 和smallButtonPressed三個IBAction到對應的Button, Event選擇**Touch Up Inside**  
接著可以按 ⌘+S 將lab\_ViewSizingViewController.xib存檔了



Step12. 在Groups & Files開啓Classes裡面的lab\_ViewSizingViewController.m, 先找到-(void)viewDidLoad {}, 將Mark去掉, 加入orgSize = targetView.bounds來設定我們原本的Size.

```
- (void)viewDidLoad {  
    [super viewDidLoad];  
    orgSize = targetView.bounds;  
}
```

Step13. 同樣在lab\_ViewSizingViewController.m實作我們三個Button對應的IBAction.

在originalButtonPressed{}裡面我們將targetView的bounds設定為原先的orgSize.

```
-(IBAction) originalButtonPressed{
    NSLog(@"Original button pressed");
    targetView.bounds = orgSize;
}
```

在biggerButtonPressed{}裡面我們建立一個新的CGRect叫做newSize等於目前targetView的bounds的size,將他成為自己的1.5倍,再assign回給targetView.bounds.

```
-(IBAction) biggerButtonPressed{
    NSLog(@"Bigger button pressed");
    CGRect newSize = targetView.bounds;
    newSize = CGRectMake(0, 0, newSize.size.width*1.5,
newSize.size.height*1.5);

    targetView.bounds = newSize;
}
```

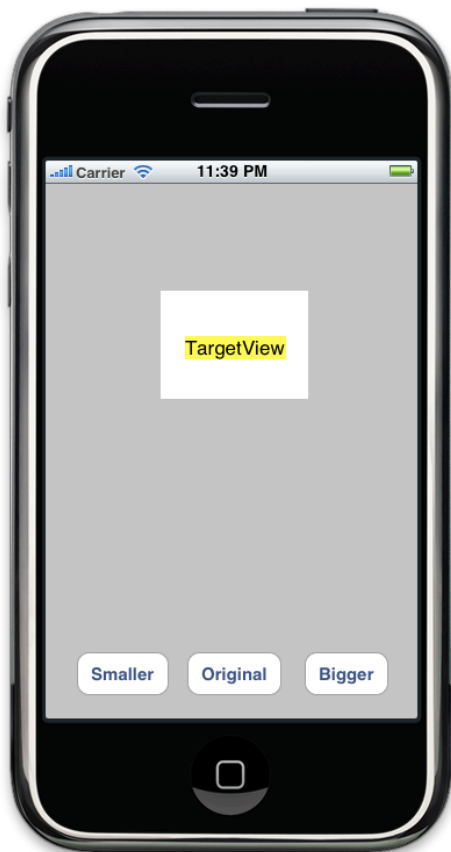
在biggerButtonPressed{}裡面我們建立一個新的CGRect叫做newSize等於目前targetView的bounds的size,將他成為自己1/1.5倍,再assign回給targetView.bounds.

```
-(IBAction) smallerButtonPressed{
    NSLog(@"Smaller button pressed");
    CGRect newSize = targetView.bounds;
    newSize = CGRectMake(0, 0, newSize.size.width/1.5,
newSize.size.height/1.5);

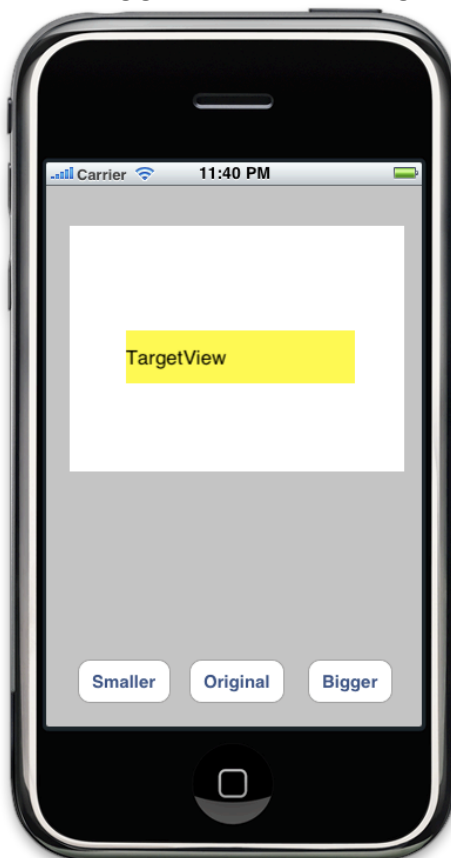
    targetView.bounds = newSize;
}
```

Step14. Simulation (⌘+enter)

出現我們建立的View, Label, 和三個Button.



當按下Bigger Button時, targetView放大,Label也跟著放大.





當按下Smaller Button時, targetView縮小, Label也跟著縮小.



當按下Original Button時, targetView和Label都回覆原來比例.

