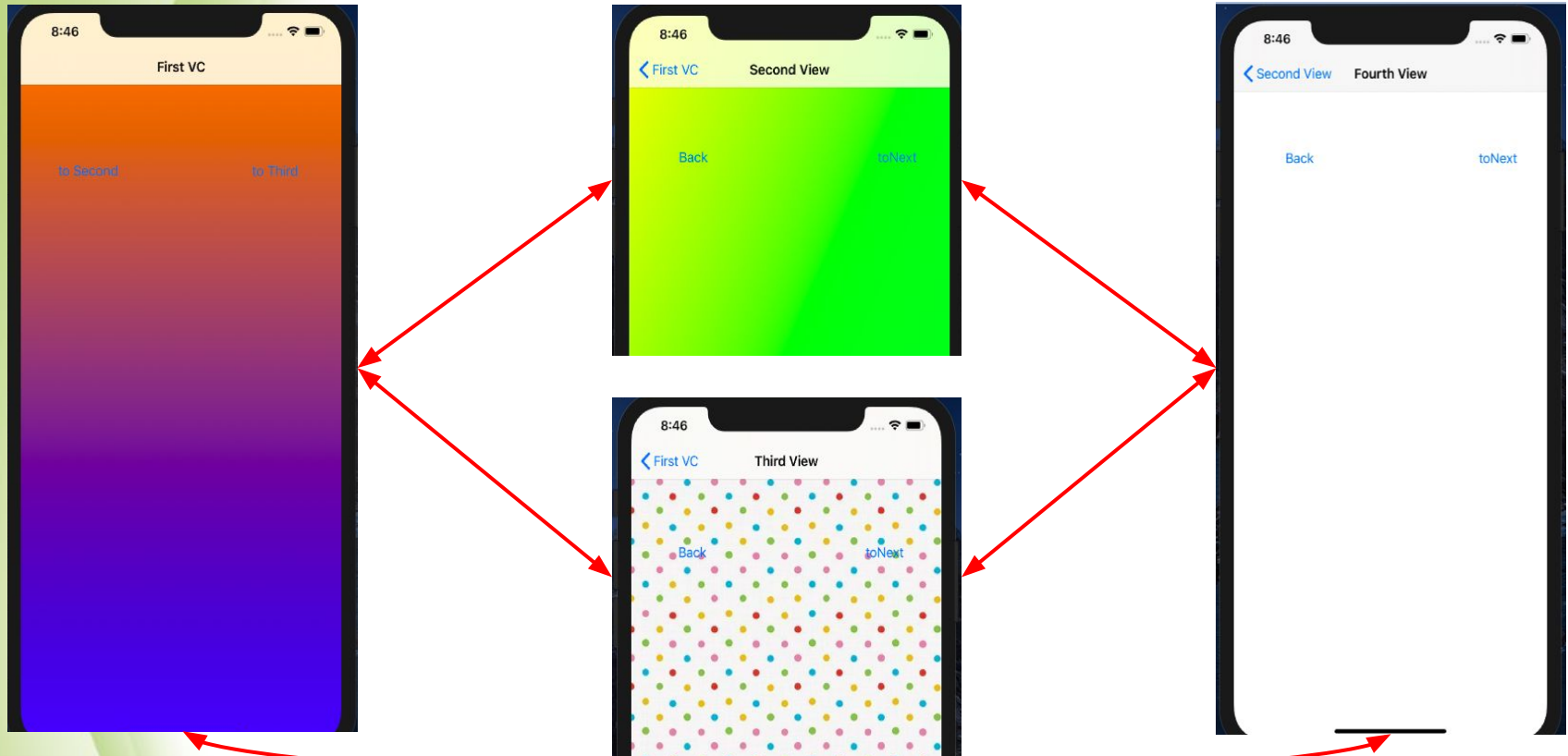


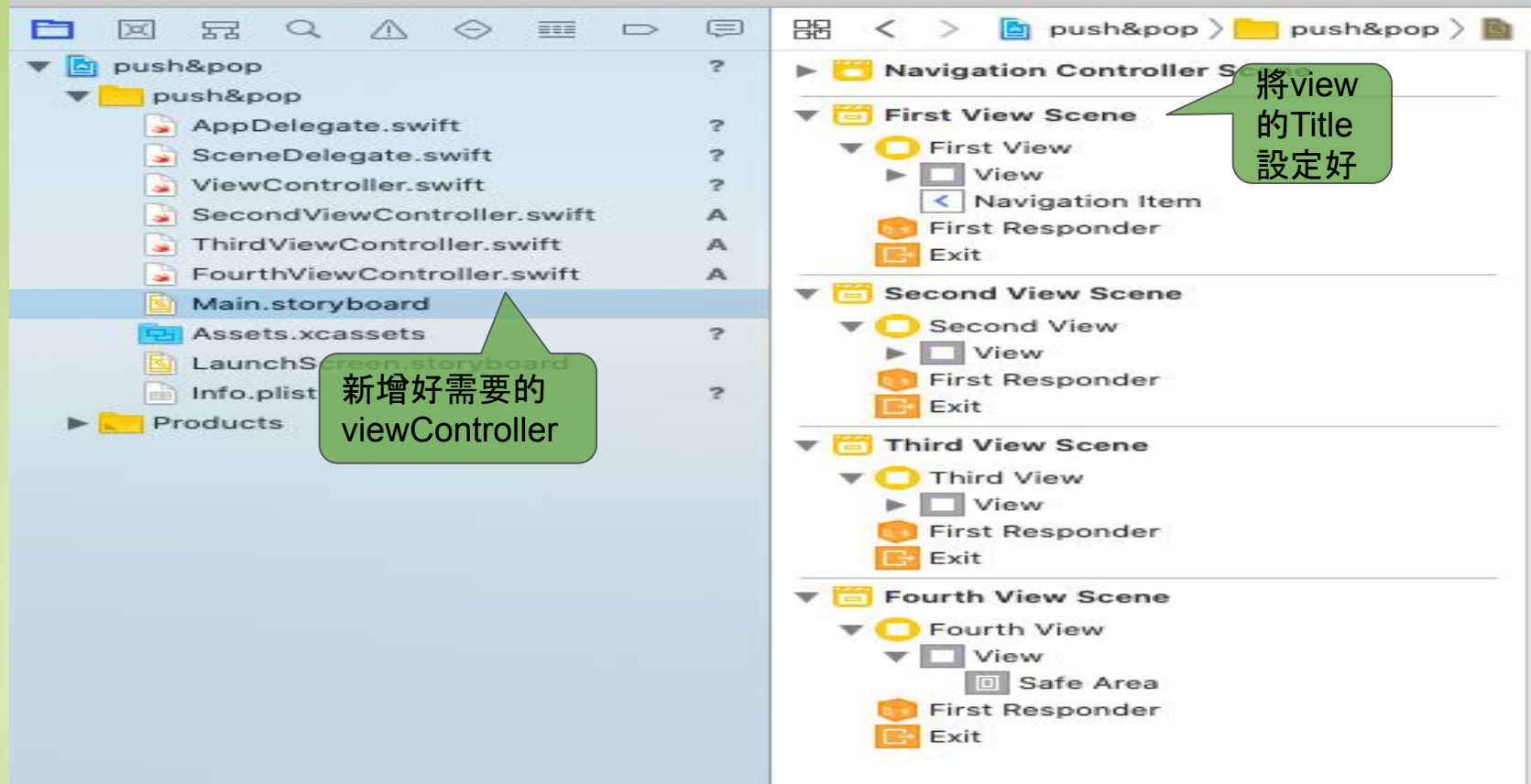
# Class 3



# Navigation - push & pop



# Navigation - push & pop



# Navigation - push & pop

分別將view  
的controller  
與identity設  
定好

The screenshot shows the Xcode interface for configuring a view controller. The 'Custom Class' section has 'Class' set to 'ViewController' and 'Module' set to 'push\_pop', with the 'Inherit Module From Target' checkbox checked. The 'Identity' section has 'Storyboard ID' set to 'firstVC' and 'Use Storyboard ID' checked. The 'User Defined Runtime Attributes' section is empty.

Key Path	Type	Value
----------	------	-------

The screenshot shows the Xcode interface for configuring a second view controller. The 'Custom Class' section has 'Class' set to 'SecondViewController' and 'Module' set to 'push\_pop', with the 'Inherit Module From Target' checkbox unchecked. The 'Identity' section has 'Storyboard ID' set to 'secondVC' and 'Use Storyboard ID' checked. The 'User Defined Runtime Attributes' section is empty.

Key Path	Type	Value
----------	------	-------

The screenshot shows the Xcode interface for configuring a third view controller. The 'Custom Class' section has 'Class' set to 'ThirdViewController' and 'Module' set to 'push\_pop', with the 'Inherit Module From Target' checkbox checked. The 'Identity' section has 'Storyboard ID' set to 'thirdVC' and 'Use Storyboard ID' checked. The 'User Defined Runtime Attributes' section is empty.

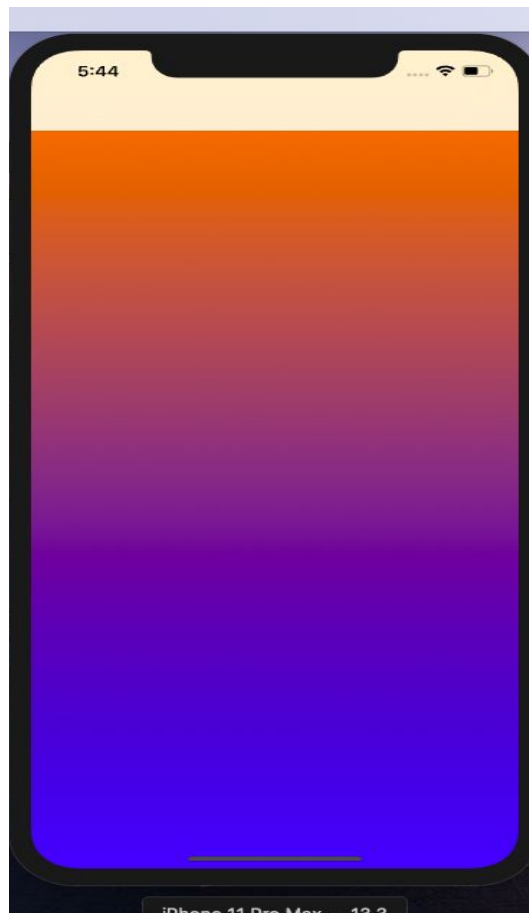
Key Path	Type	Value
----------	------	-------

The screenshot shows the Xcode interface for configuring a fourth view controller. The 'Custom Class' section has 'Class' set to 'FourthViewController' and 'Module' set to 'push\_pop', with the 'Inherit Module From Target' checkbox checked. The 'Identity' section has 'Storyboard ID' set to 'fourthVC' and 'Use Storyboard ID' checked. The 'User Defined Runtime Attributes' section is empty.

Key Path	Type	Value
----------	------	-------

# Navigation - push & pop

有漸層  
的背景



# Navigation - push & pop

先創建GradientLayer  
並建立初始化函式

設置起始顏色  
以及結束顏色、範圍  
大小

將Layer插入  
到View裡並  
讓它在最底層

呼叫函式

```
8
9 import UIKit
10
11 class ViewController: UIViewController {
12     let gradientLayer = CAGradientLayer()
13     func createGradientLayer() {
14         gradientLayer.colors = [UIColor.orange.cgColor,
15                                 UIColor.blue.cgColor]
16         gradientLayer.frame = self.view.bounds
17         self.view.layer.insertSublayer(gradientLayer, at: 0)
18     }
19
20     override func viewWillAppear(_ animated: Bool) {
21         super.viewWillAppear(animated)
22         createGradientLayer()
23     }
24     override func viewDidLoad() {
25         super.viewDidLoad()
26     }
27 }
28
```

設置要從主頁到其他頁的按鈕

# Navigation - push & pop

拆optional  
方式一

```
18
19  @IBAction func toSecond(_ sender: UIButton) {
20      if let vc = storyboard?.instantiateViewController(withIdentifier: "secondVC"){
21          self.navigationController?.pushViewController(vc, animated: true)
22      }
23  }
24
25  @IBAction func toThird(_ sender: UIButton) {
26      let vc = storyboard?.instantiateViewController(withIdentifier: "thirdVC")
27      self.navigationController?.pushViewController(vc!, animated: true)
28  }
29
```

與之前一樣  
用identifier  
取得view

透過navigation  
使用push來顯  
示頁面

拆optional  
方式二



# Navigation - push & pop

```
class SecondViewController: UIViewController {  
    let gradientLayer = CAGradientLayer()  
    func createGradientLayer() {  
        gradientLayer.startPoint = CGPoint(x: 0,y: 0)  
        gradientLayer.endPoint = CGPoint(x: 1,y: 1)  
        gradientLayer.colors = [UIColor.yellow.cgColor, UIColor.green.cgColor]  
        gradientLayer.frame = self.view.bounds  
        self.view.layer.insertSublayer(gradientLayer, at: 0)  
    }  
}
```

設置startPoint  
以及endPoint  
即可設置顏色  
漸層的方向

其餘與前面同



# Navigation - push & pop

也可以手動去接  
UIStoryboard

```
@IBAction func toNext(_ sender: UIButton) {  
    let mystoryBoard: UIStoryboard = UIStoryboard(name: "Main", bundle: nil)  
    let vc = mystoryBoard.instantiateViewController(withIdentifier: "fourthVC")  
    self.navigationController?.pushViewController(vc, animated: true)  
}
```

這樣vc就並非optional  
了

使用pop來  
回到上一頁

```
@IBAction func Back(_ sender: UIButton) {  
    guard (self.navigationController?.popViewController(animated: true)) != nil else{  
        print("NO Navigation controller")  
        return  
    }  
}
```

guard就好比if..not..  
如果條件不為真便  
會執行else的內容其  
中一定要包含return  
主要用在例外事件

# Navigation - push & pop

```
8
9 import UIKit
10
11 class ThirdViewController: UIViewController {
12
13     @IBAction func toNext(_ sender: UIButton) {
14         let mystoryBoard: UIStoryboard = UIStoryboard(name: "Main", bundle: nil)
15         let vc = mystoryBoard.instantiateViewController(withIdentifier: "fourthVC")
16         self.navigationController?.pushViewController(vc, animated: true)
17     }
18
19     @IBAction func Back(_ sender: UIButton) {
20         guard (self.navigationController?.popViewController(animated: true)) != nil else{
21             print("NO Navigation controller")
22             return
23         }
24
25         override func viewDidLoad() {
26             super.viewDidLoad()
27             self.view.backgroundColor = UIColor(patternImage: UIImage(named: "texture.jpg")!)
28             // Do any additional setup after loading the view.
29         }
30     }
31 }
```

第三頁的Controller  
與第二頁相同

在viewDidLoad  
將圖片轉為顏色  
並設置背景

# Navigation - push & pop

```
push&pop > push&pop > FourthViewController.swift > toNext(...)
5 // Created by evan on 2020/3/10.
6 // Copyright © 2020 evan. All rights reserved.
7 //
8
9 import UIKit
10
11 class FourthViewController: UIViewController {
12     @IBAction func toNext(_ sender: UIButton) {
13         guard (self.navigationController?.popToRootViewController(animated: true)) != nil else{
14             print("NO Navigation controller")
15             return
16         }
17     }
18     @IBAction func Back(_ sender: UIButton) {
19         guard (self.navigationController?.popViewController(animated: true)) != nil else{
20             print("NO Navigation controller")
21             return
22         }
23     }
24     override func viewDidLoad() {
25         super.viewDidLoad()
26
27         // Do any additional setup after loading the view.
28     }
29 }
```

當第四頁  
按下Next  
時會pop  
至第一頁