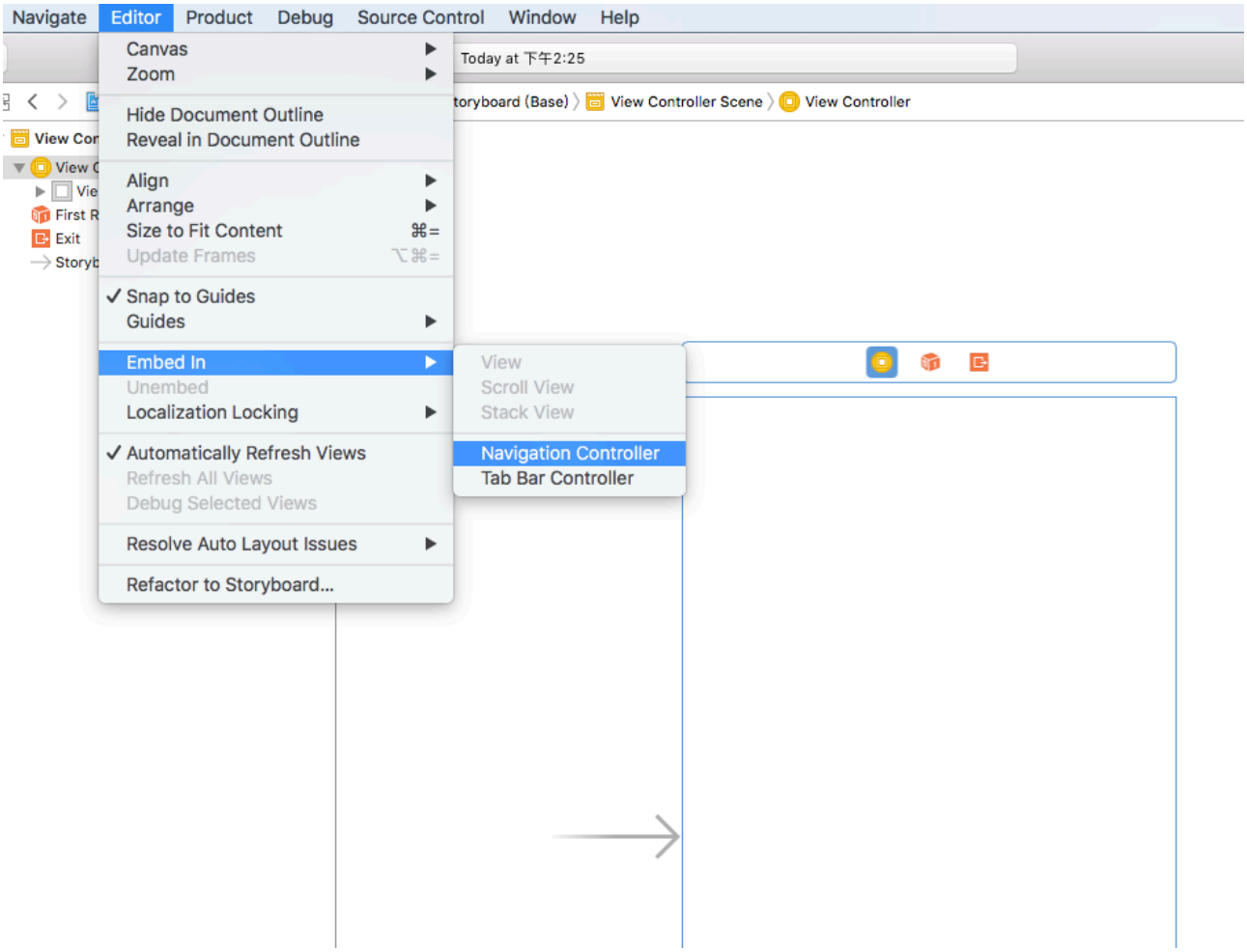
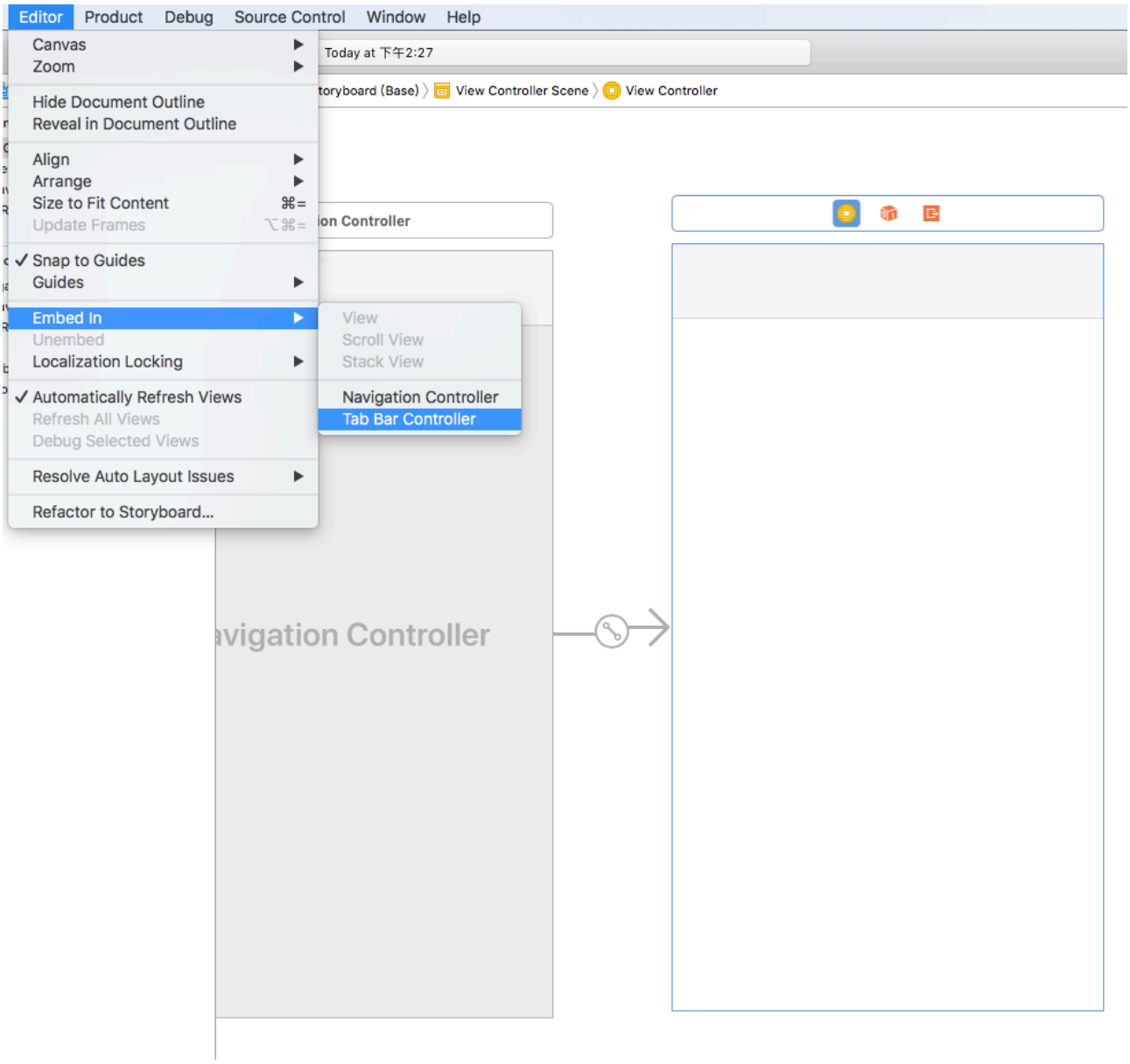
範例analytic

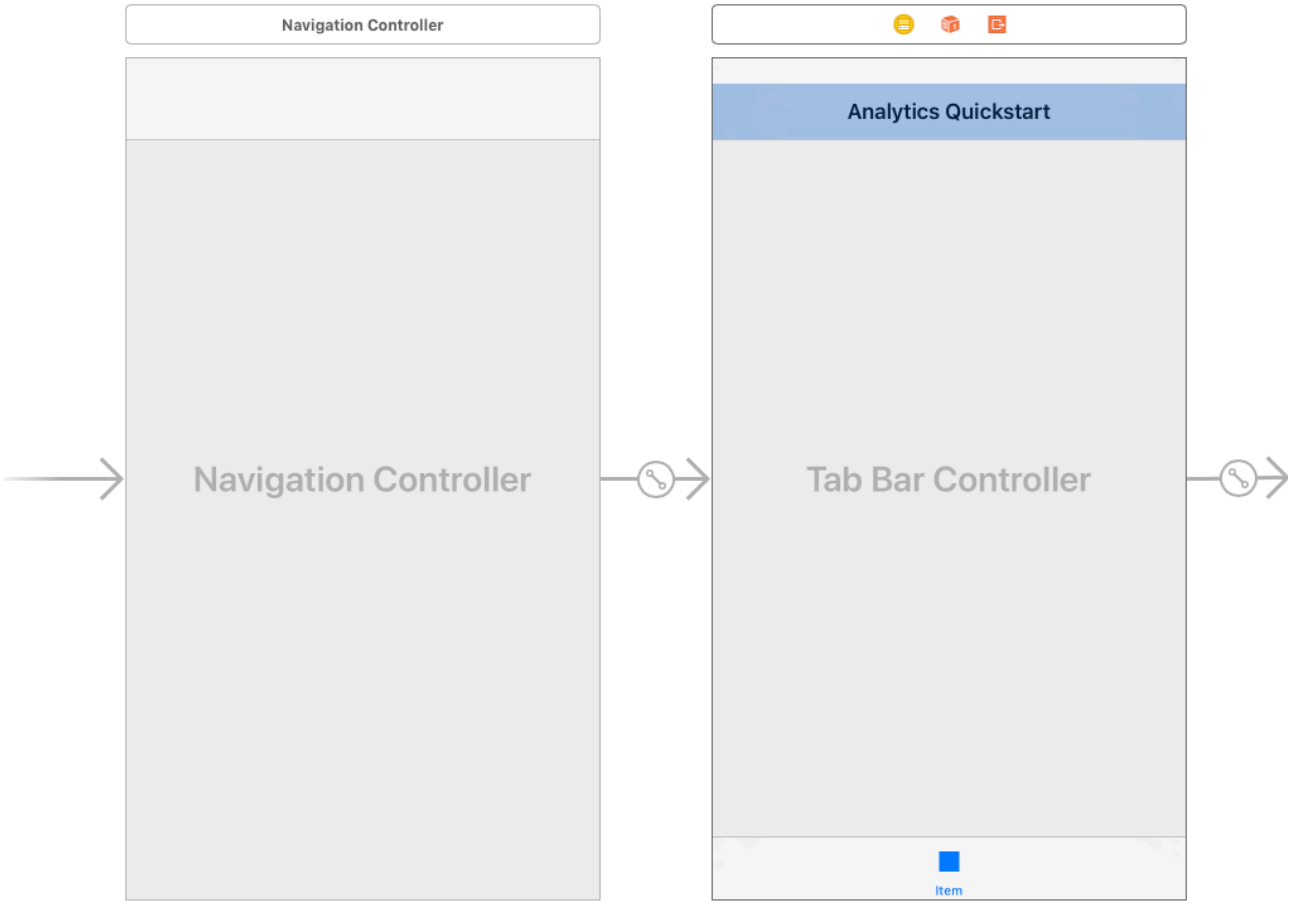
將UINavigationConroller包圍ViewController。



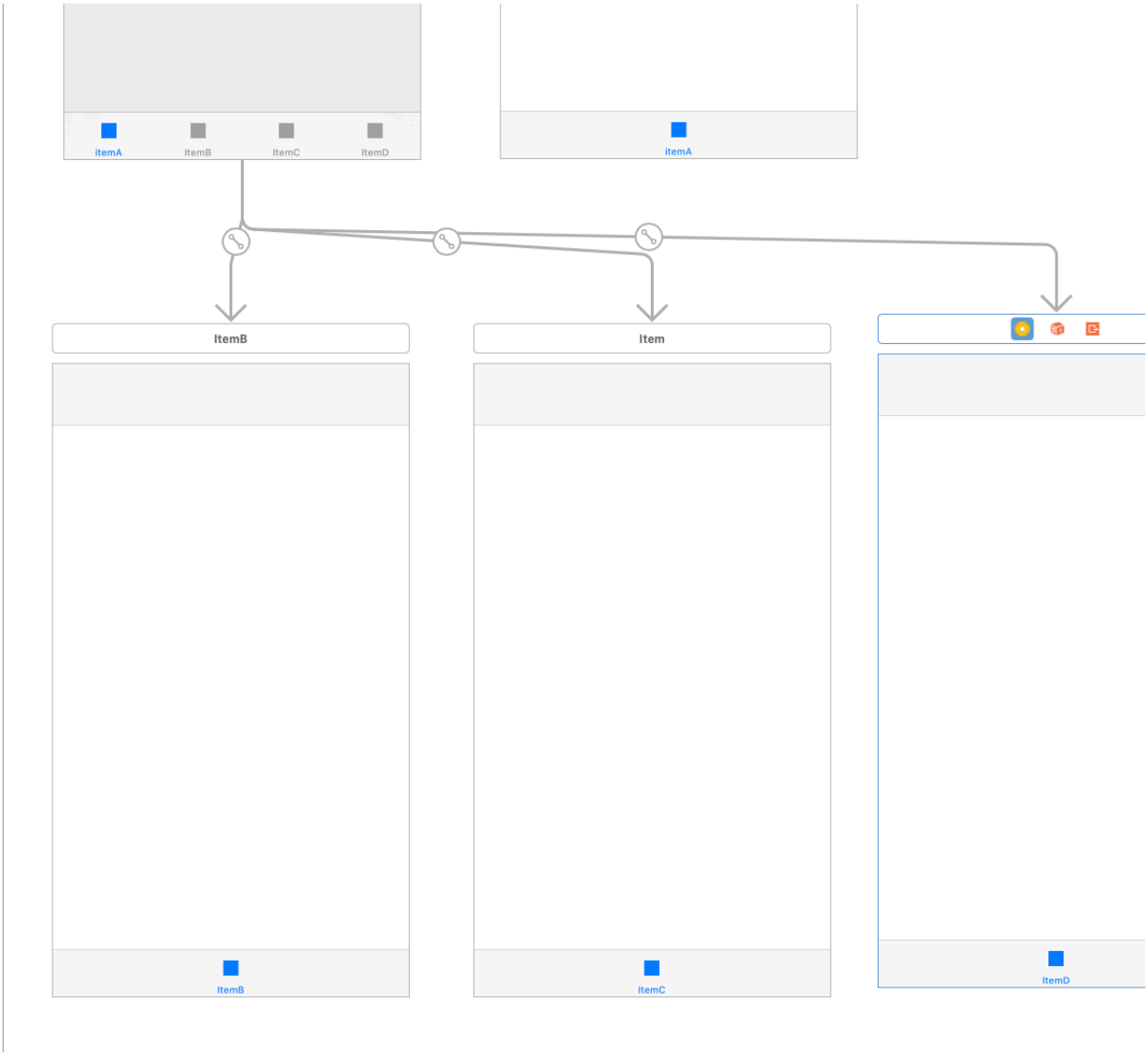
再將UITabBarController包圍ViewConroller



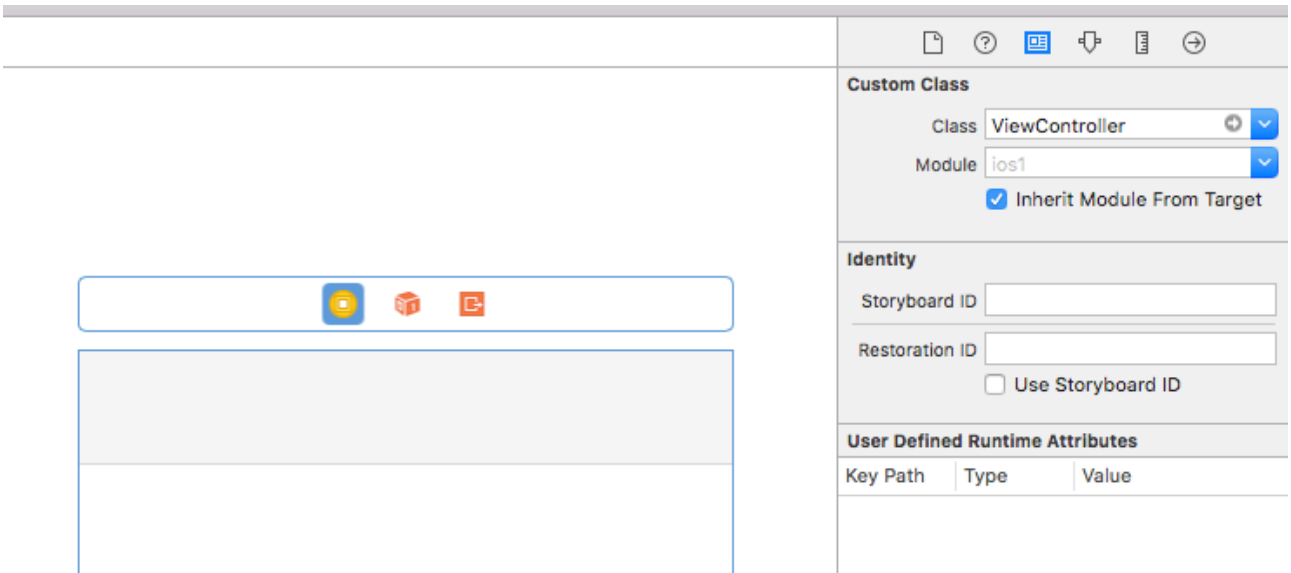
將UITabBarController的NavigationItem的title，改為Analytics Quickstart。



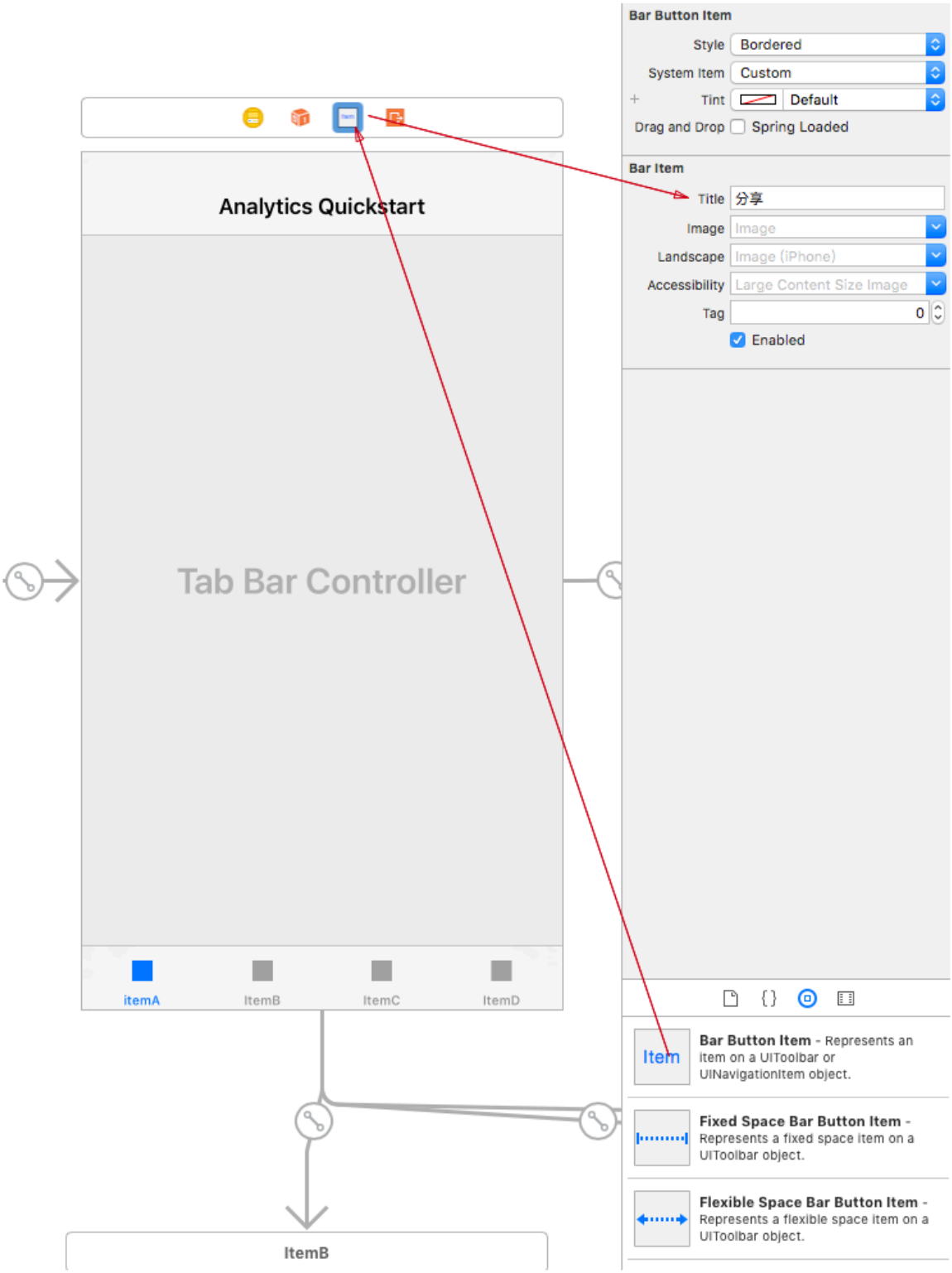
將UITabBarController加入另外3個UIViewController，並將UITabBarItem分別變為ItemA,itemB,itemC,itemD。



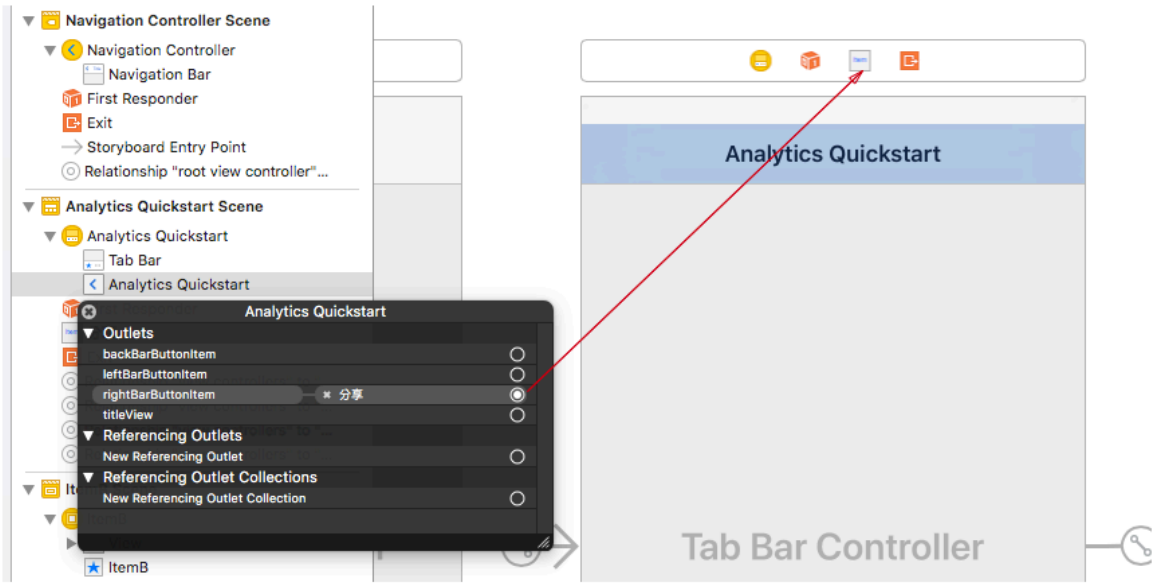
將4頁的UIViewController，全部皆改為ViewController。



將UIBarButonIem放在TabBarConroller最上方，並將BarItem改為分享。



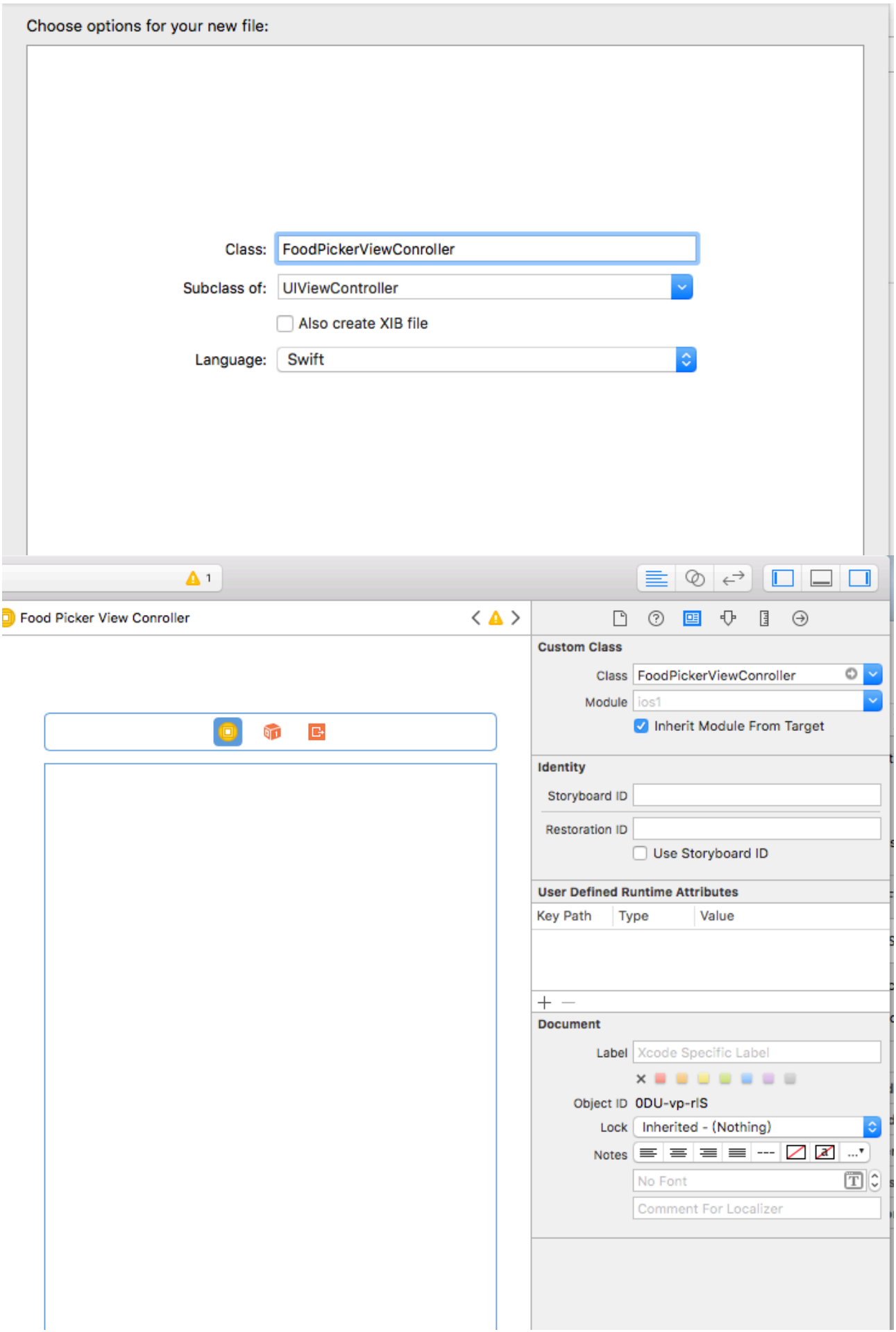
將navigationItem的rightBarButtomItem,連結至分享的barButtonItem。



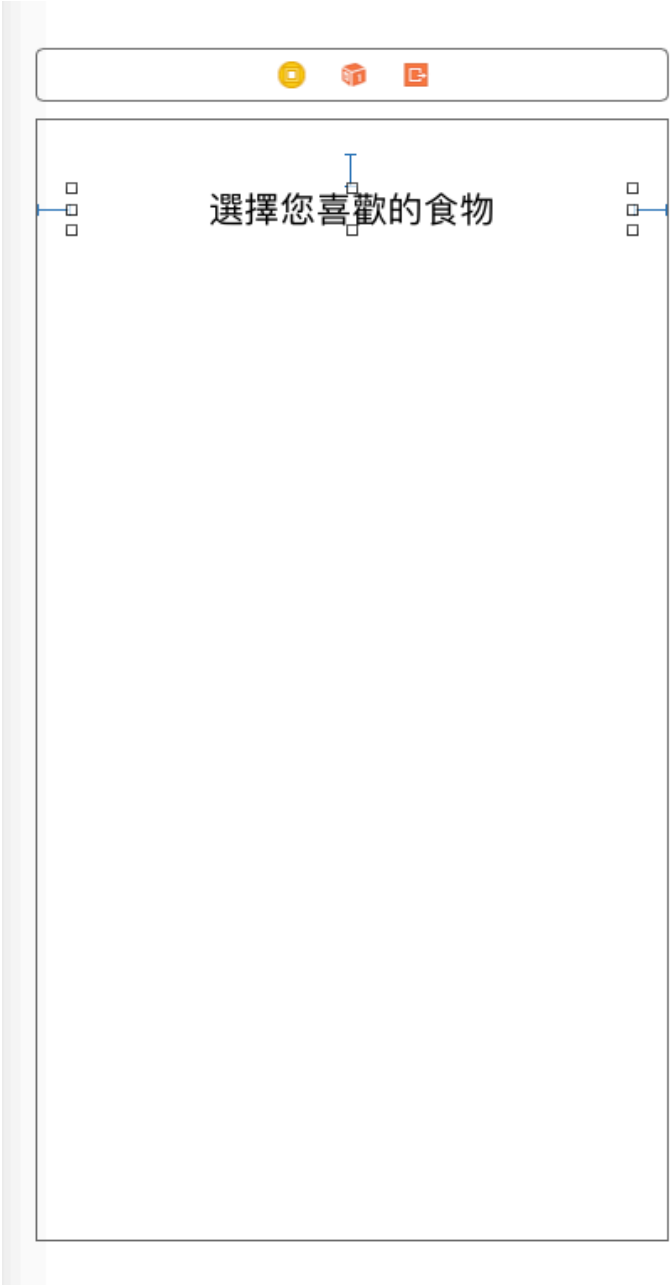
將AppDelegate加入下列程式碼，初始化Firebase

```
1
2  import UIKit
3  import Firebase
4
5  @UIApplicationMain
6  class AppDelegate: UIResponder, UIApplicationDelegate {
7
8      var window: UIWindow?
9
10
11     func application(_ application: UIApplication,
           didFinishLaunchingWithOptions launchOptions:
           [UIApplicationLaunchOptionsKey: Any]?) -> Bool {
12         // Override point for customization after application launch.
13         FirebaseApp.configure();
14
15         return true
16     }
17
18
19
20
21 }
22
23
```

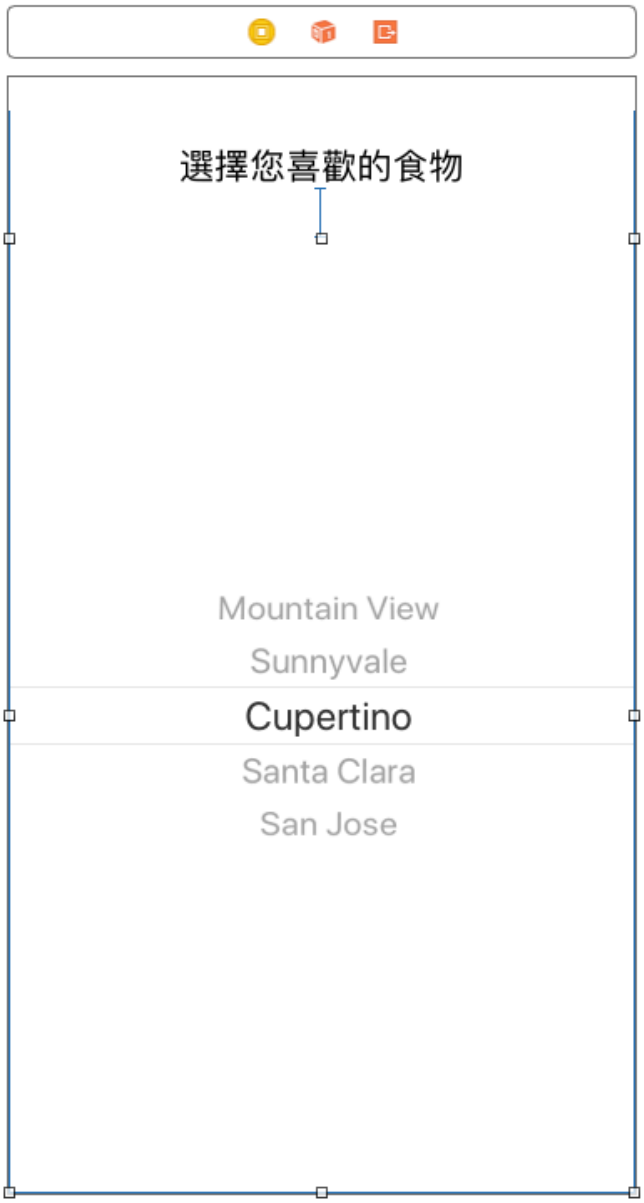
在storyboard建立新的空白的UIViewController，並在專案新增FoodPickerViewController，繼承UIViewController。將storyboard內空的UIViewConroller的custom class改為FoodPickerViewController。



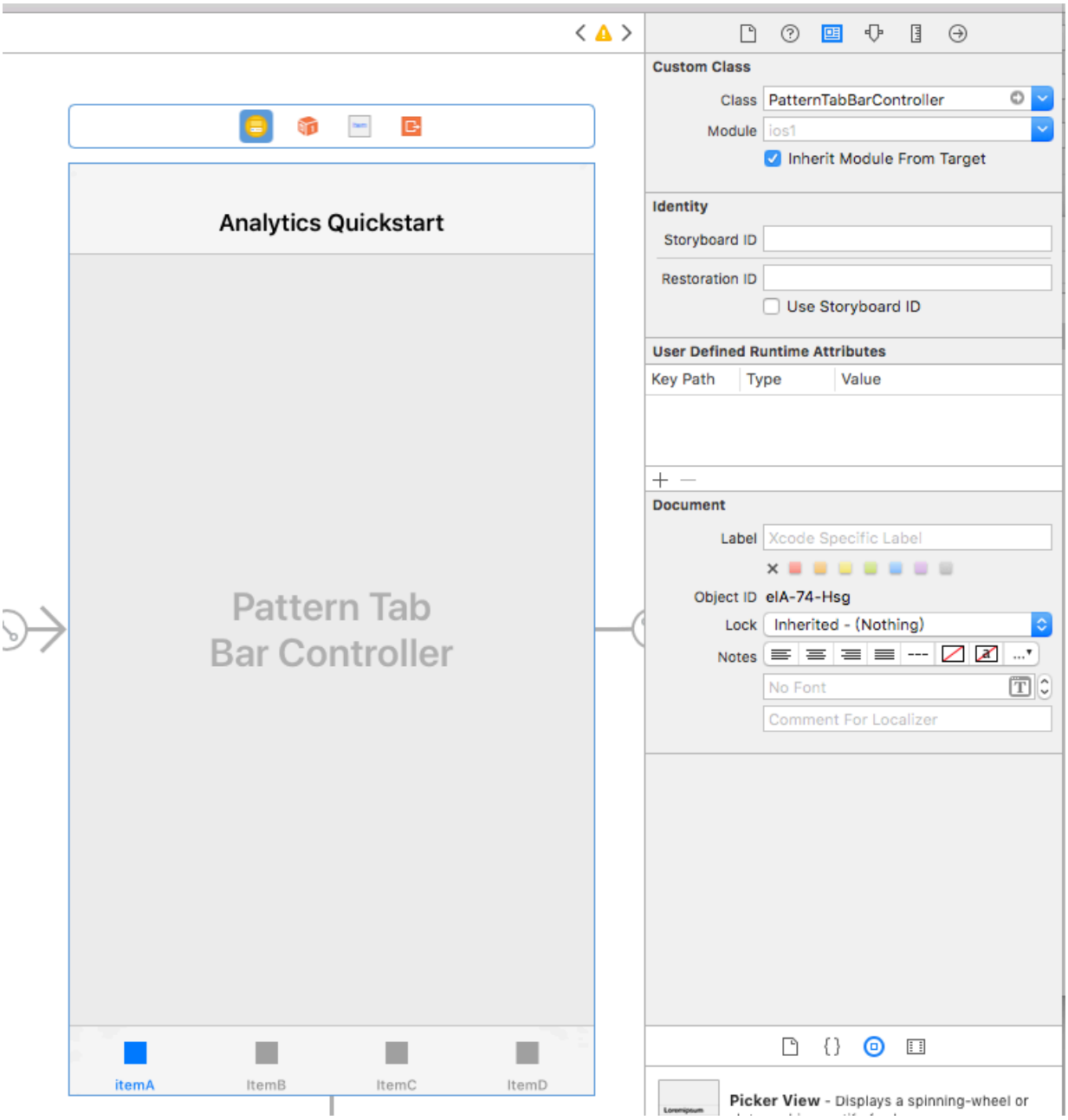
加入UILabel，將文字改為選擇您喜歡的食物，並且加上Constraints



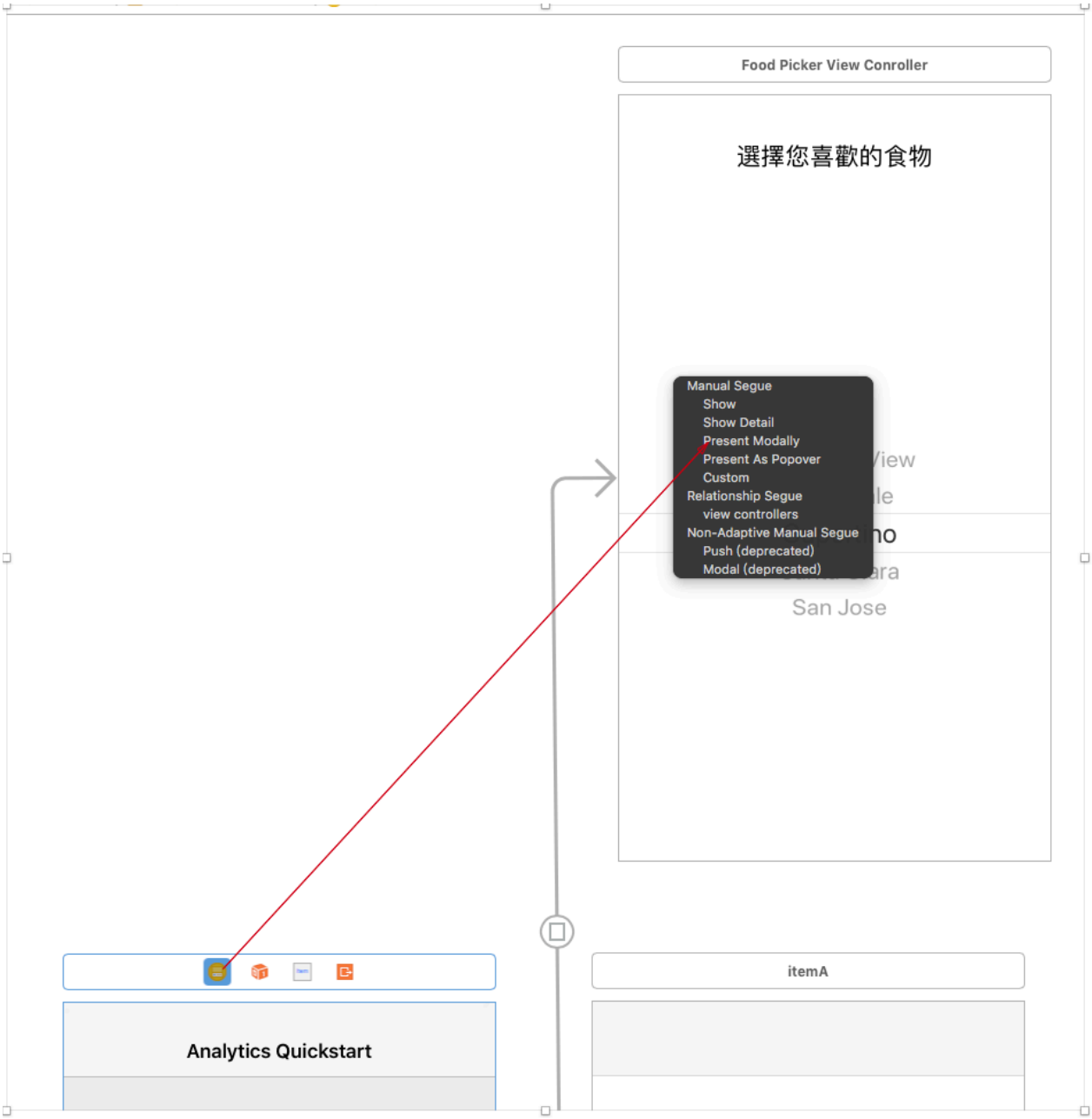
加上UIPickerView，再加上Constraints



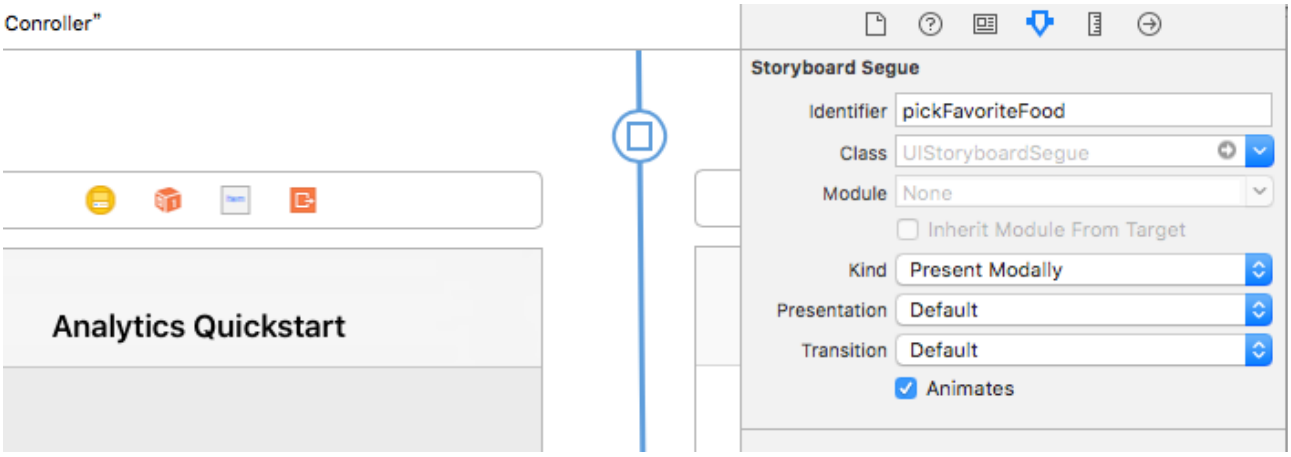
建立PatternTabBarController:UITabBarController，將storyboard的UITabBarController的custom class改為PatternTabBarController



由UITabBarController按住control,並拖滑鼠至FoodPickerViewController，選擇presend Modally。



將segue identifier設定為pickFavoriteFood



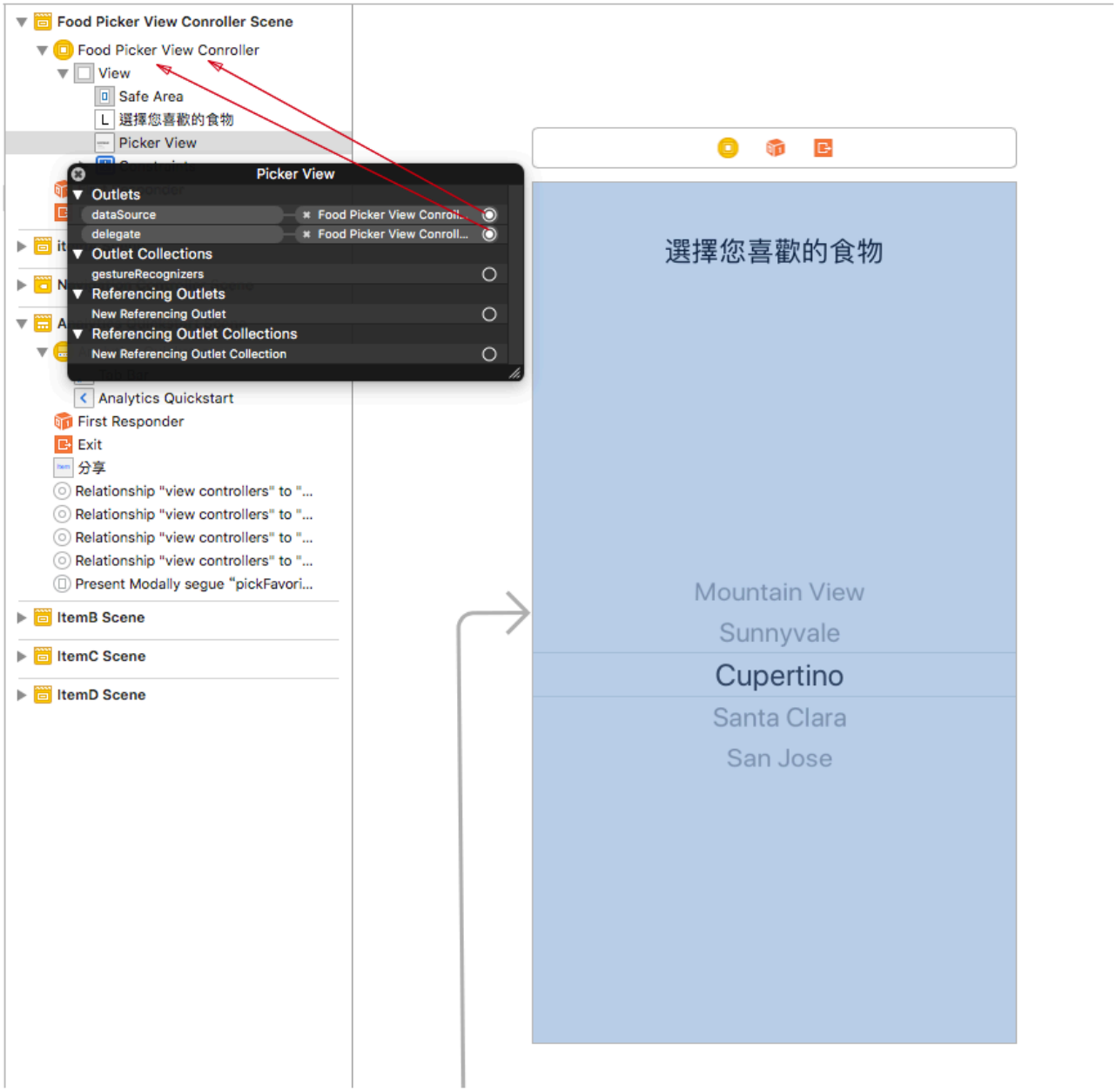
打開PatternTabBarController.swift, 建立 方法getUserFavorieFood()和askForFavoriteFood()，getUserFavoriteFood()主要功能是檢查App永久儲存的library內有沒有儲存key為”favorite_food”的值，沒有就傳出nil。askForFavoriteFood的功能是執行segue，讓顯示出FoodPickerController。

```
1
2  import UIKit
3
4  class PatternTabBarController: UITabBarController {
5
6      override func viewDidLoad() {
7          super.viewDidLoad()
8
9          // Do any additional setup after loading the view.
10     }
11
12     func getUserFavorieFood() -> String?{
13         return UserDefaults.standard.value(forKey: "favorite_food") as? String;
14     }
15
16     func askForFavoriteFood(){
17         performSegue(withIdentifier: "pickFavoriteFood", sender: nil);
18     }
19
20
21 }
22
```

建立override viewDidAppear(_:)，在此執行檢查的動作，如果沒有favorite_food的值，則跳出FoodPickerConroller.

```
import UIKit

class PatternTabBarController: UITabBarController {

    override func viewDidAppear(_ animated: Bool) {
        super.viewDidAppear(animated);
        if getUserFavorieFood() == nil {
            askForFavoriteFood();
        }
    }

    func getUserFavorieFood() -> String?{
        return UserDefaults.standard.value(forKey: "favorite_food") as?
            String;
    }

    func askForFavoriteFood(){
        performSegue(withIdentifier: "pickFavoriteFood", sender: nil);
    }


}
```

開始編輯FoodPickerViewConroller，在storyboard內建立pickerView的delegate和dataSource皆為FoodPickerViewController。



實作FoodPickerViewController。使用extension功能，讓FoodPinckerViewController採納UIPickerViewDelegate和採納UIPickerViewControllerDataSource。並且實作這2個protocol內的需求method。

```swift
import UIKit

class FoodPickerViewConroller: UIViewController {
    let foodStuffs = ["Hot Dogs", "Hamburger", "Pizza"];

    override func viewDidLoad() {
        super.viewDidLoad()
    }

}

extension FoodPickerViewConroller:UIPickerViewDelegate{
    func pickerView(_ pickerView: UIPickerView, titleForRow row: Int,
        forComponent component: Int) -> String?{
        return foodStuffs[row];
    }

    func pickerView(_ pickerView: UIPickerView, didSelectRow row: Int,
        inComponent component: Int){

    }
}

extension FoodPickerViewConroller:UIPickerViewDataSource{
    func numberOfComponents(in pickerView: UIPickerView) -> Int {
        return 1;
    }

    func pickerView(_ pickerView: UIPickerView, numberOfRowsInComponent
        component: Int) -> Int {
        return foodStuffs.count;
    }

}
```

建立顯示內容的陣列

實作UIPicerViewDelegate

回傳row要顯示的內容

實作UIPicerViewDataSource

回傳componens數量

回傳componens內的row的數量

實作pickerView(_:, didSelectRow:, inComponent:)，使用者選取喜歡吃的食物後，將會執行這個方法。它有2個重要功能
1.儲存使用者選取的選項值至永久儲存區(library)內,且將設為”favorite_food”。
2.傳送user property至Firebase

```
2 import UIKit
3 import Firebase
```

載入Firebase

```
func pickerView(_ pickerView: UIPickerView, didSelectRow row: Int,
    inComponent component: Int){
    let food = foodStuffs[row];
    UserDefaults.standard.set(food, forKey: "favorite_food");
    UserDefaults.standard.synchronize();

    Analytics.setUserProperty(food, forName: "favorite_food");

}
```

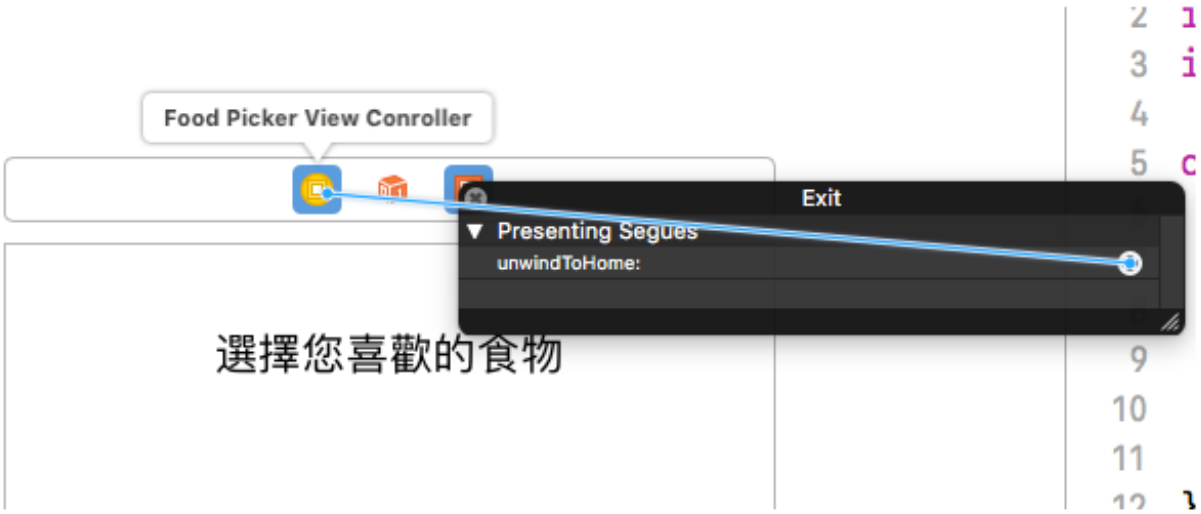
儲存資料至library

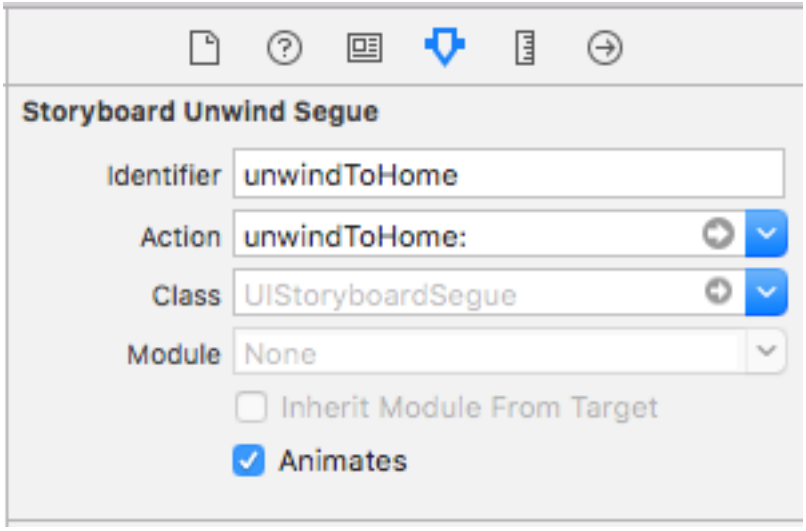
傳送資料至Firebase

建立退出FoodPickerViewController的segue
1.在PatternTabBarController內建立unwind的方法;

```
func getUserFavorieFood() -> String?{
    return UserDefaults.standard.value(forKey: "favorite_food") as? String;
}
```

2在storyboard內, 建立FoodPickerViewConroller 的unwind segue,並命名為”unwindToHome”。

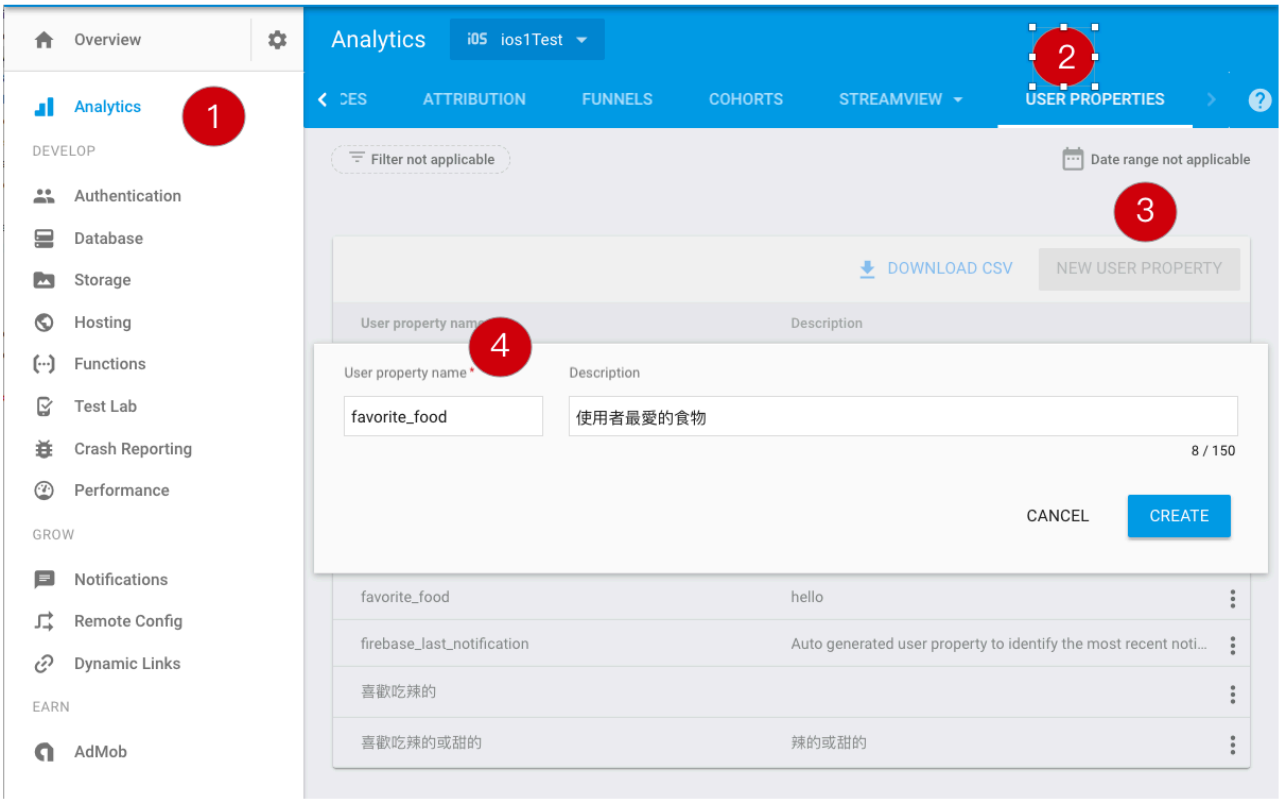




3.在FoodPickerViewController執行unwind segue。

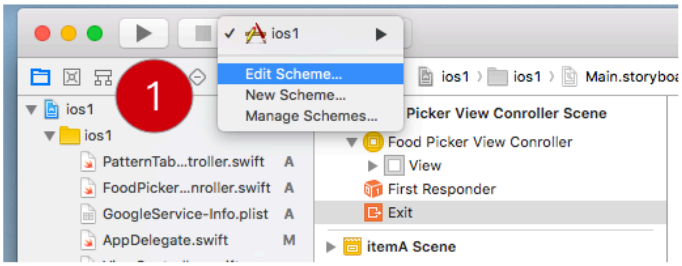
```
func pickerView(_ pickerView: UIPickerView, didSelectRow row: Int,
    inComponent component: Int){
    let food = foodStuffs[row];
    UserDefaults.standard.set(food, forKey: "favorite_food");
    UserDefaults.standard.synchronize();

    Analytics.setUserProperty(food, forName: "favorite_food");

    performSegue(withIdentifier: "unwindToHome", sender: nil);
}
```

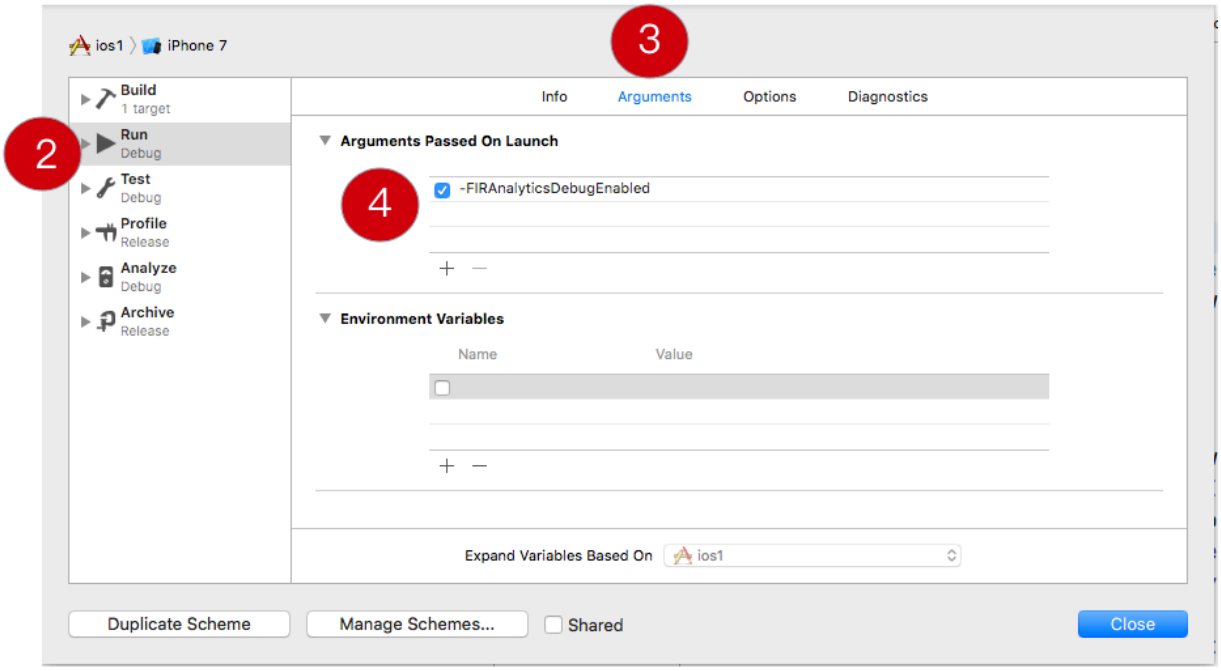
在Firebase console內註冊user property(favorite_food):
1.進入Firebase console 的 Analytics
2.點選UserProperties
3.點選NEW USER PPROPERTY
4.在User property name欄位加入favorite_food
5.在Description欄位加入說明



在Xcode debug 視窗看到這個user property ,打開 Analytics debugging:

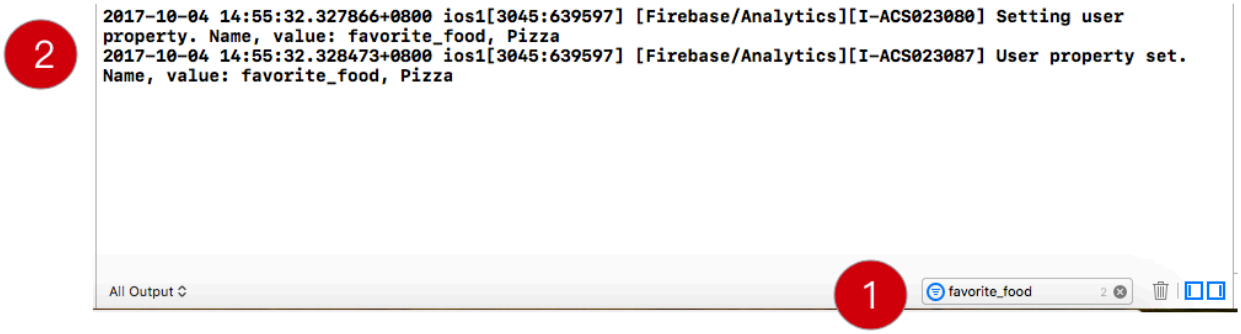
1. 在xcode選擇 **Product > Scheme > Edit scheme...**
2. 在左邊menu選擇Run
3. 選擇 **Arguments** 的標籤
4. 在 **Arguments Passed On Launch** 加入`-FIRAnalyticsDebugEnabled`.



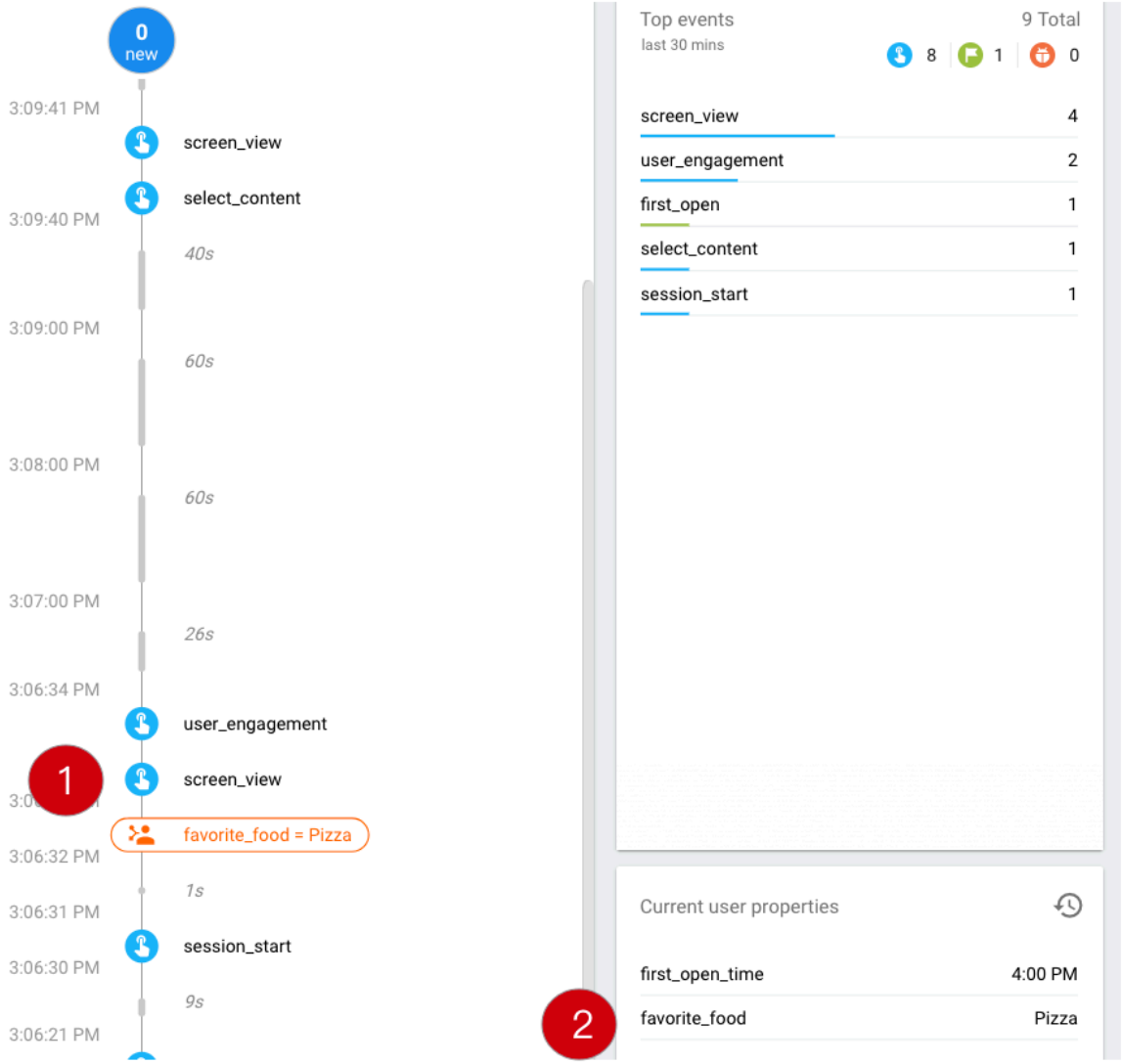


執行模擬器,選擇pizza。

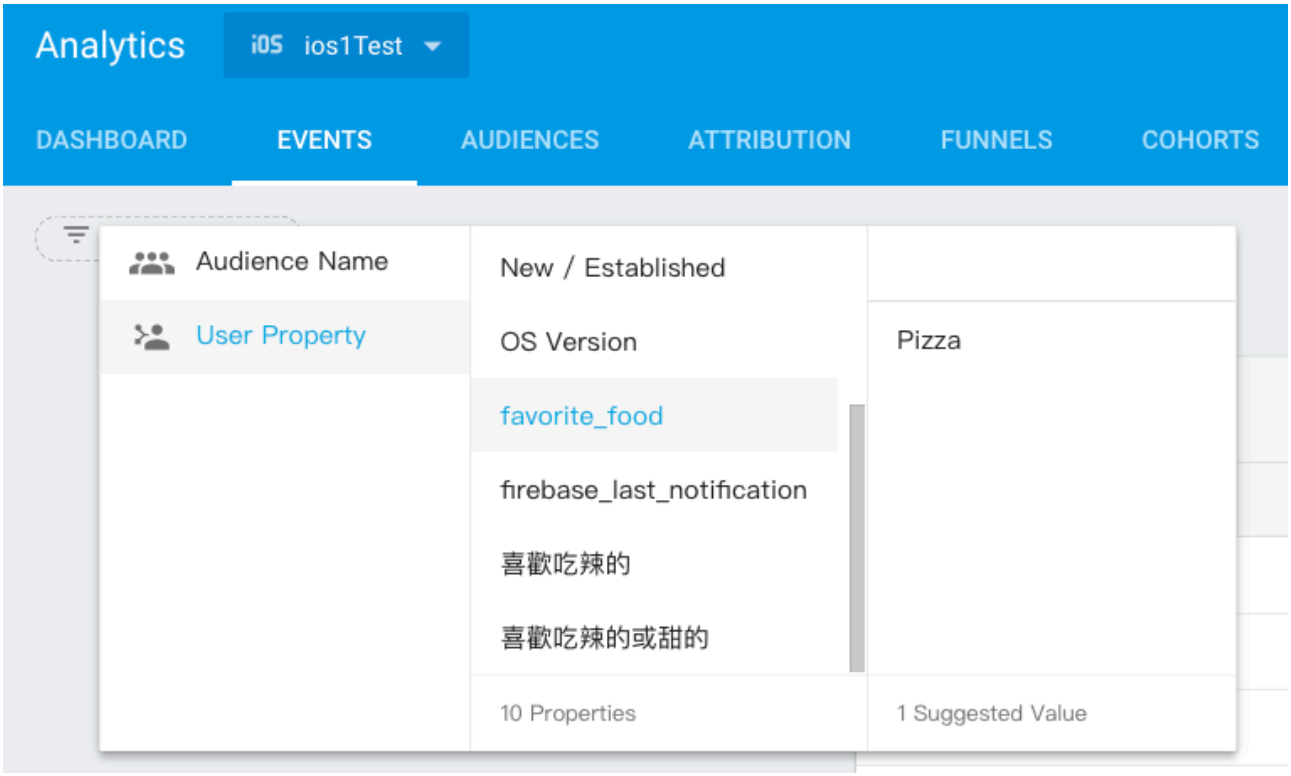
在xcode debug



在Firebase consoled debugView及時觀察:

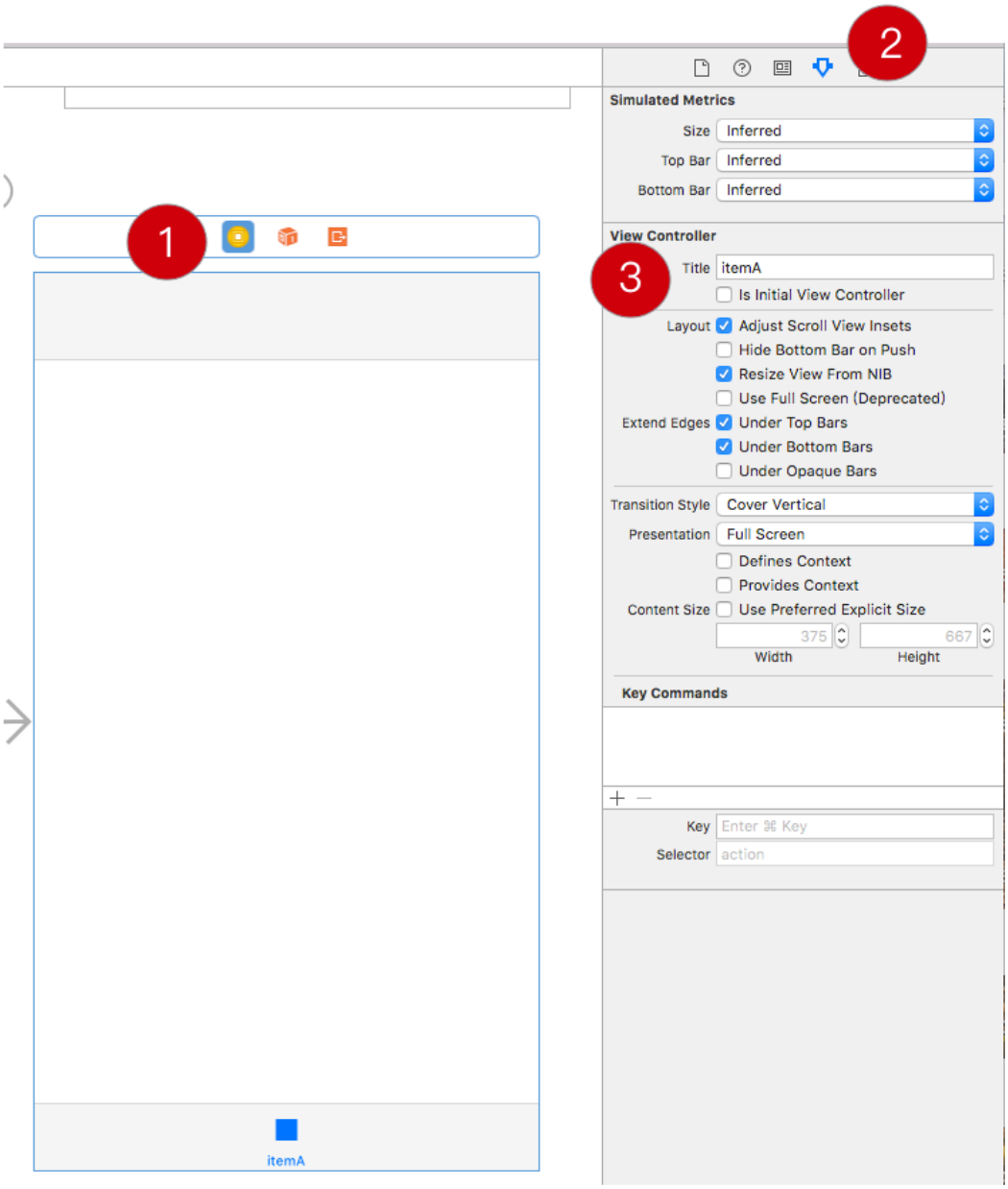


在Firebase console Events的filter內觀察(非及時，1日後觀察)



傳送Log Events

在storyboard設定4頁ViewController的title, 分別為itemA,itemB,itemC,itemD



在每一頁顯示時，讓Firebase記錄這一頁的title和此頁的class Name
打開ViewController

```swift

import UIKit
import Firebase

class ViewController: UIViewController {


    override func viewDidAppear(_ animated: Bool) {
        super.viewDidAppear(animated);
        recordScreenView();
    }

    override func didReceiveMemoryWarning() {
        super.didReceiveMemoryWarning()
        // Dispose of any resources that can be recreated.
    }

    func recordScreenView(){
        guard let screenName = title else{
            return;
        }

        let screenClass = classForCoder.description();

        print("screenName:\(screenName)");
        print("screenClass:\(screenClass)");

        Analytics.setScreenName(screenName, screenClass: screenClass);
    }


}
```

1
2
3

在viewDidAppear時間點，執行recordScreenView()

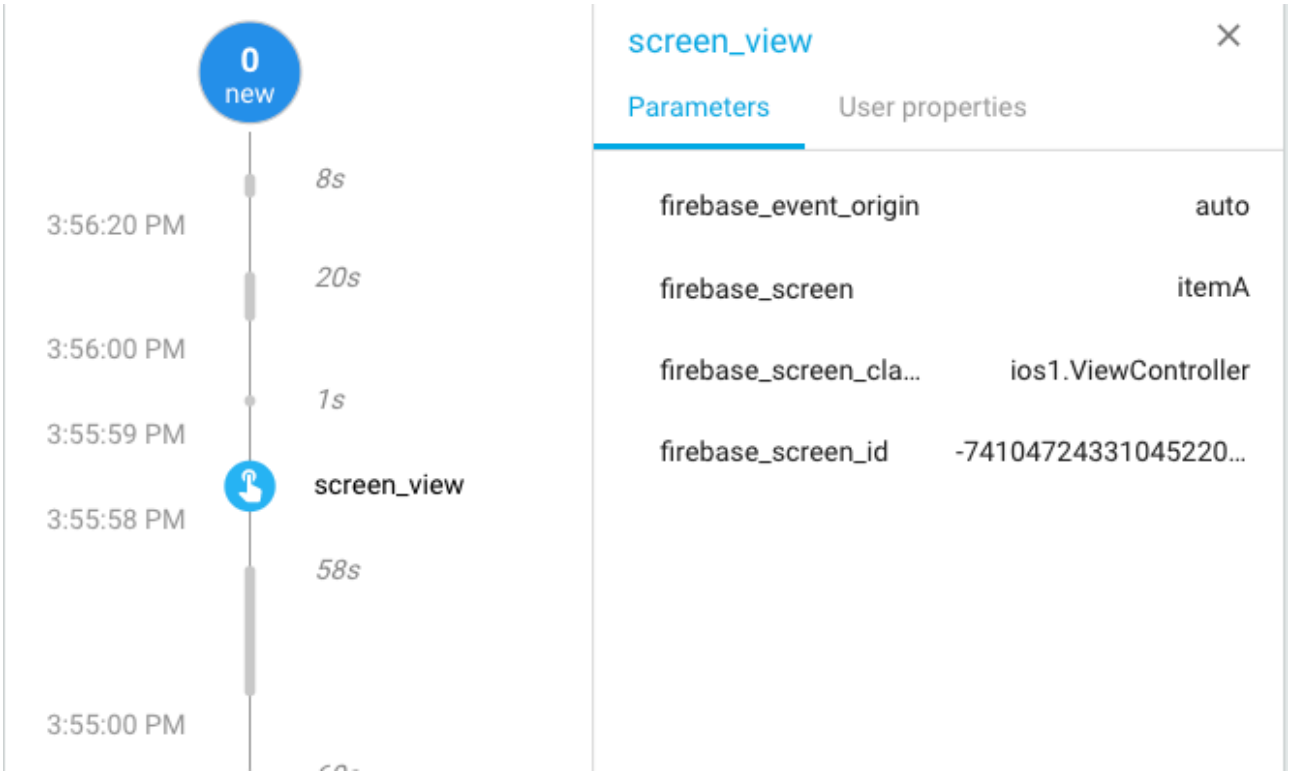
取得頁面title

送出screen Name

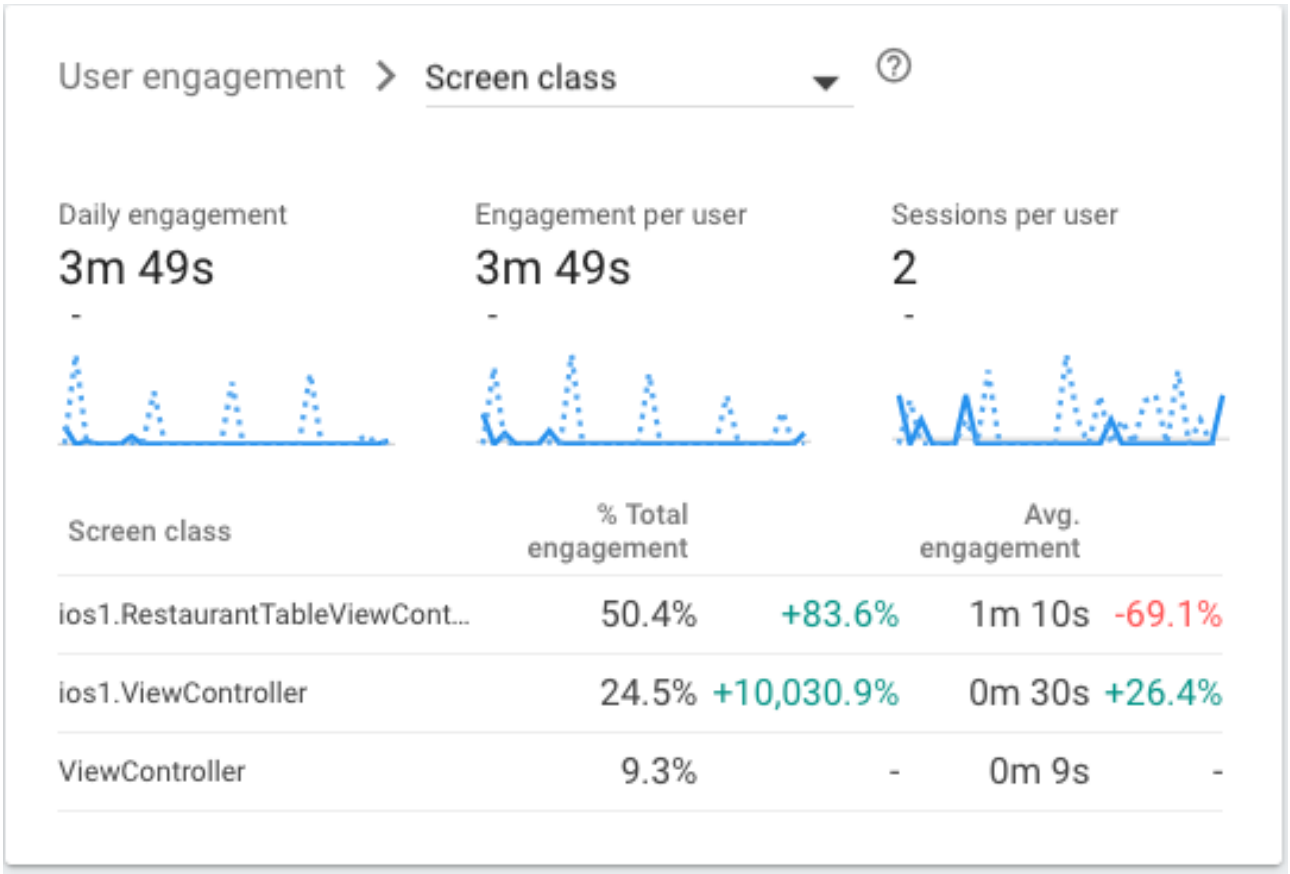
在xcode-debug:

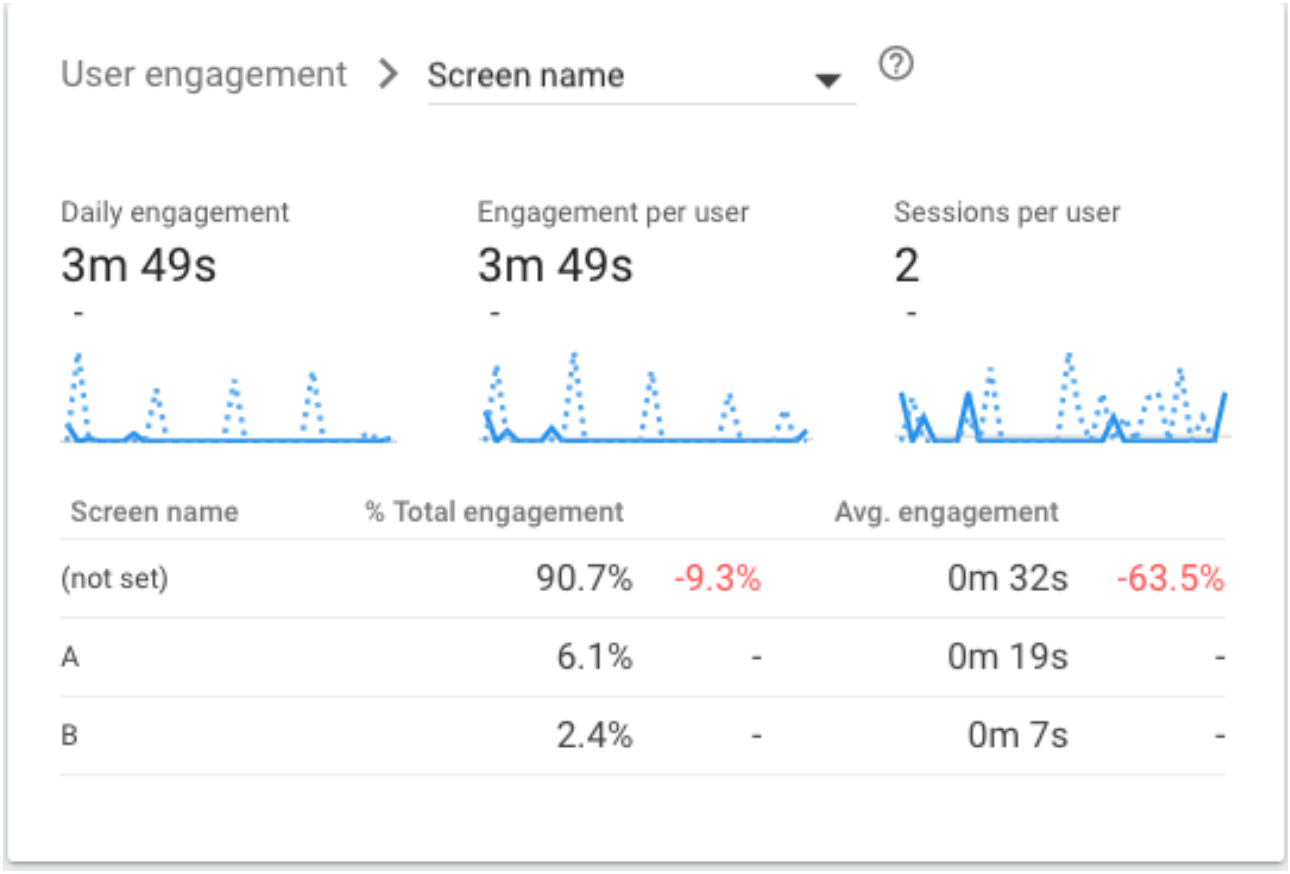
```
2017-10-04 15:55:59.347918+0800 ios1[4029:977742] [Firebase/Analytics][I-ACS023105] Event is not subject to real-time event count daily
limit. Marking an event as real-time. Event name, parameters: screen_view (_vs), {
    firebase_screen_id (_si) = -7410472433104522068;
    firebase_screen_class (_sc) = ios1.ViewController;
    firebase_screen (_sn) = itemA;
    firebase_realtime (_r) = 1;
    firebase_debug (_dbg) = 1;
    firebase_event_origin (_o) = auto;
}
```

在firebase-console -debugView



在firebase console dashboard內的顯示





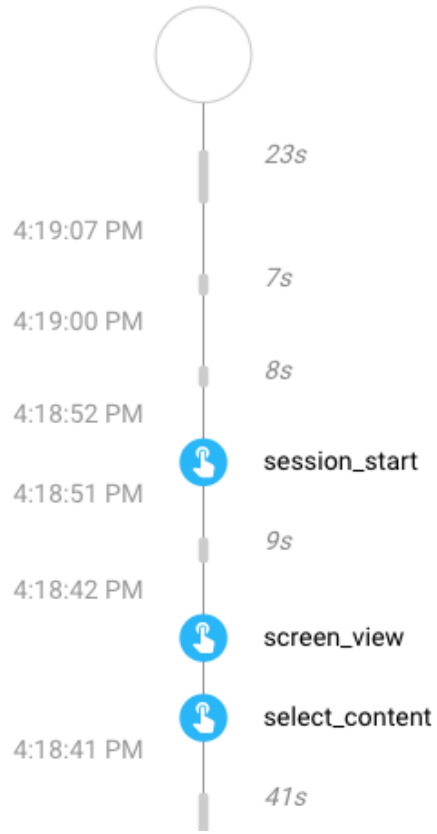
送出內建的LogEvent，但夾帶自訂的參數

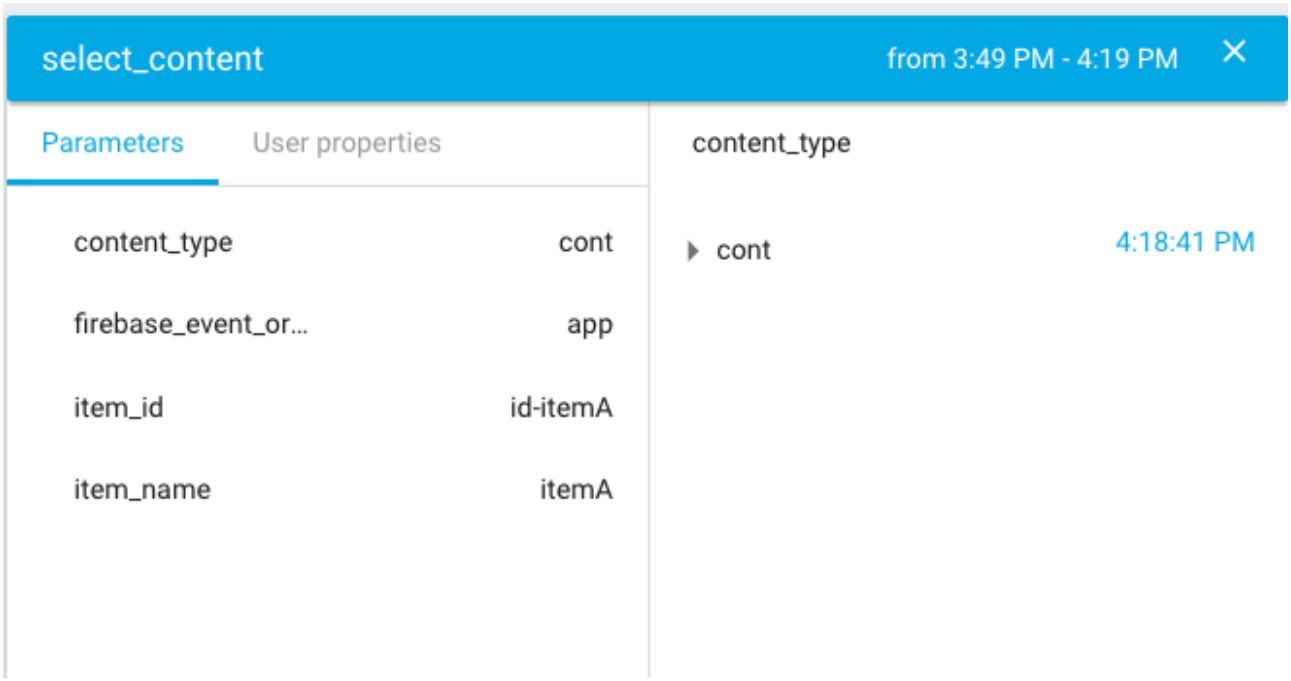
```
class ViewController: UIViewController {


    override func viewDidAppear(_ animated: Bool) {
        super.viewDidAppear(animated);
        recordScreenView();

        //自訂的 custom_event
        Analytics.logEvent(AnalyticsEventSelectContent, parameters: [
            AnalyticsParameterItemID: "id-\(title!)" as NSObject,
            AnalyticsParameterItemName:title! as NSObject,
            AnalyticsParameterContentType:"cont" as NSObject
            ]);
    }
```

Xcode debug

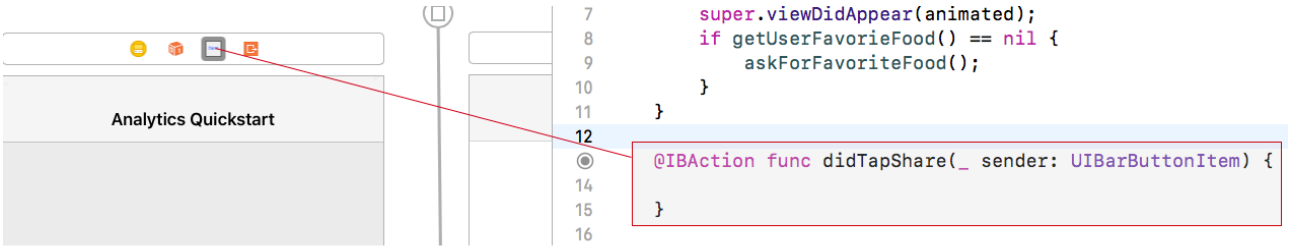
```
2017-10-04 16:18:42.225079+0800 ios1[4173:1064579] [Firebase/Analytics][I-ACS023105] Eve
limit. Marking an event as real-time. Event name, parameters: select_content, {
    item_id = id-itemA;
    firebase_event_origin (_o) = app;
    item_name = itemA;
    firebase_realtime (_r) = 1;
    firebase_debug (_dbg) = 1;
    content_type = cont;
}
```

Firebase console debug view:





配合按鈕事件傳送LogEvent
打開 PatternTabBarController，建立分享按鈕的目標方法。

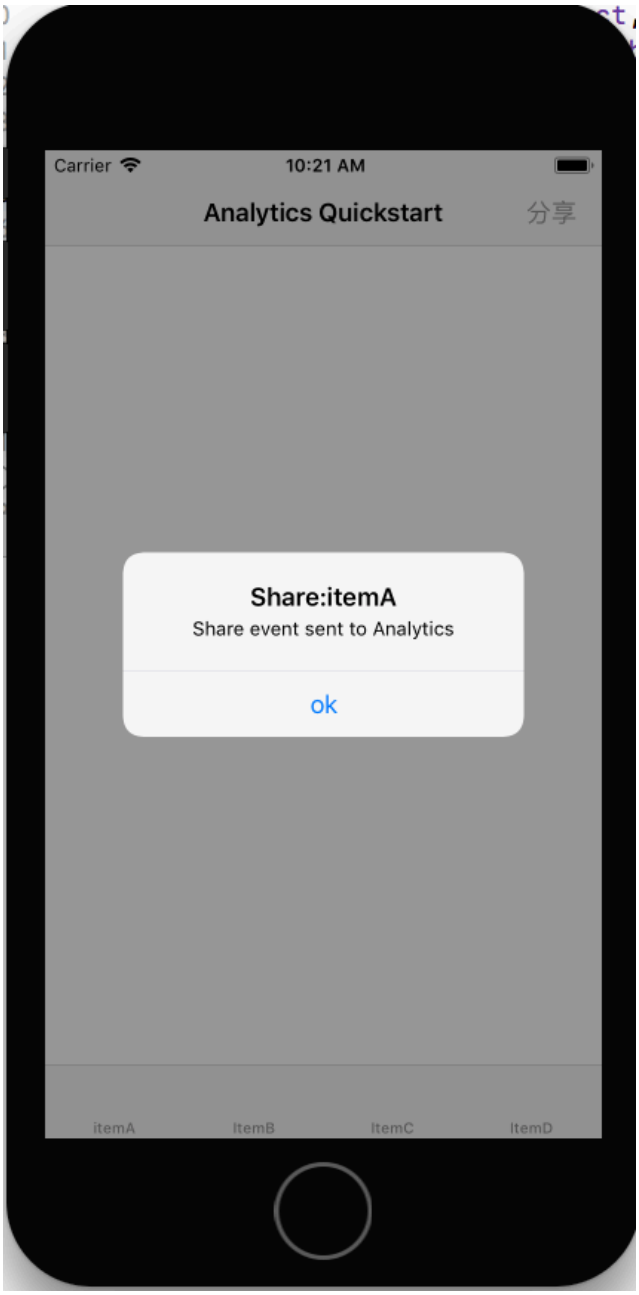


建立自訂的LogEvent

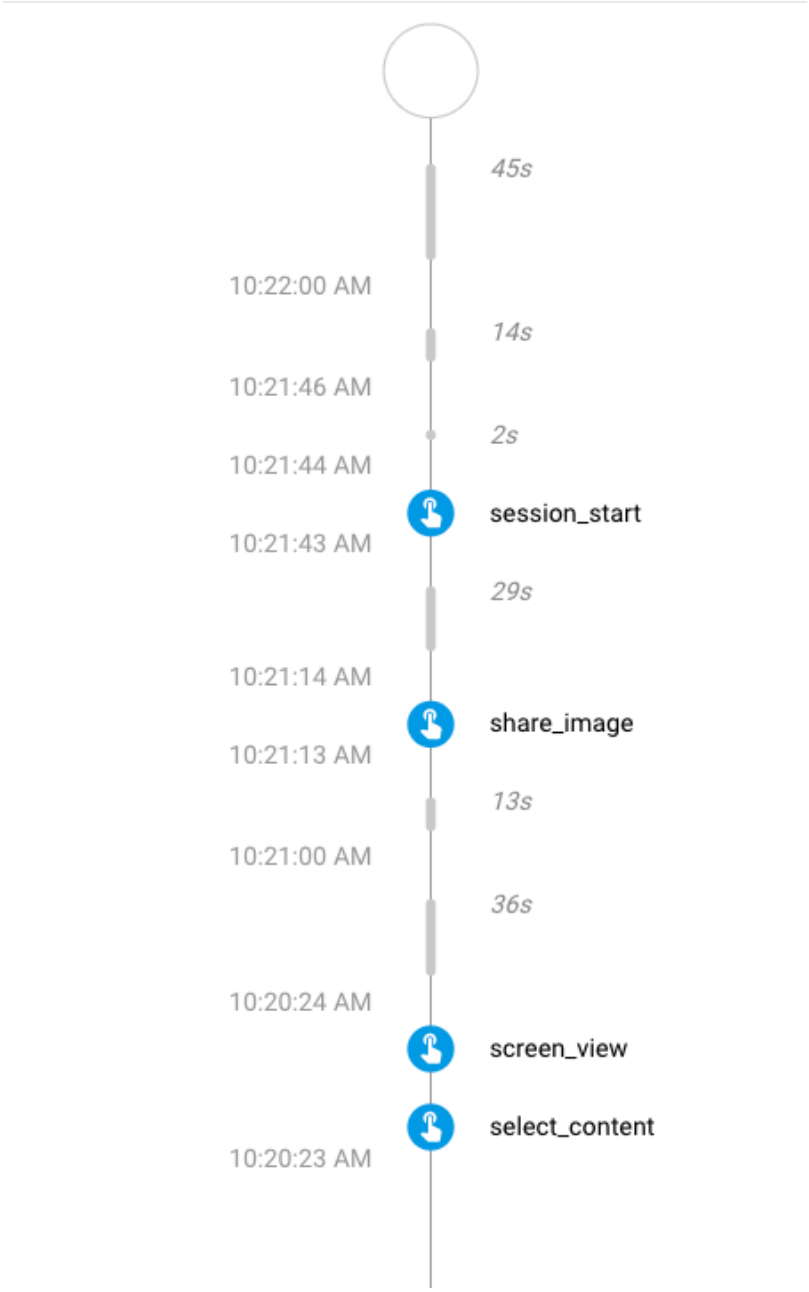
```
@IBAction func didTapShare(_ sender: UIBarButtonItem) {
    let name = "Pattern!\(self.selectedViewController!.title!)";
    let text = "I'd love you to hear about \(name)";

    //傳送出自訂的LogEvent
    Analytics.logEvent("share_image", parameters: [
        "name": name as NSObject,
        "full_text": text as NSObject
        ]);

    let title = "Share:\(self.selectedViewController!.title!)";
    let message = "Share event sent to Analytics";
    let aleartConroller = UIAlertController(title: title, message: message,
        preferredStyle: .alert);
    let alertAction = UIAlertAction(title: "ok", style: .default, handler: nil);
    aleartConroller.addAction(alertAction);
    present(aleartConroller, animated: true, completion: nil);
}
```

Alert對話框

執行並按下分享按鈕
模擬器顯示



Firebase console 的 debug view



Firebase console 的 debug view