

스위프트를 이용한 아이폰 앱 개발 시작하기

2020년 2월

월	화	수	목
3일 [--Swift 초급 Day!--]	4일	5일 [--Swift 중급 Day! --]	6일

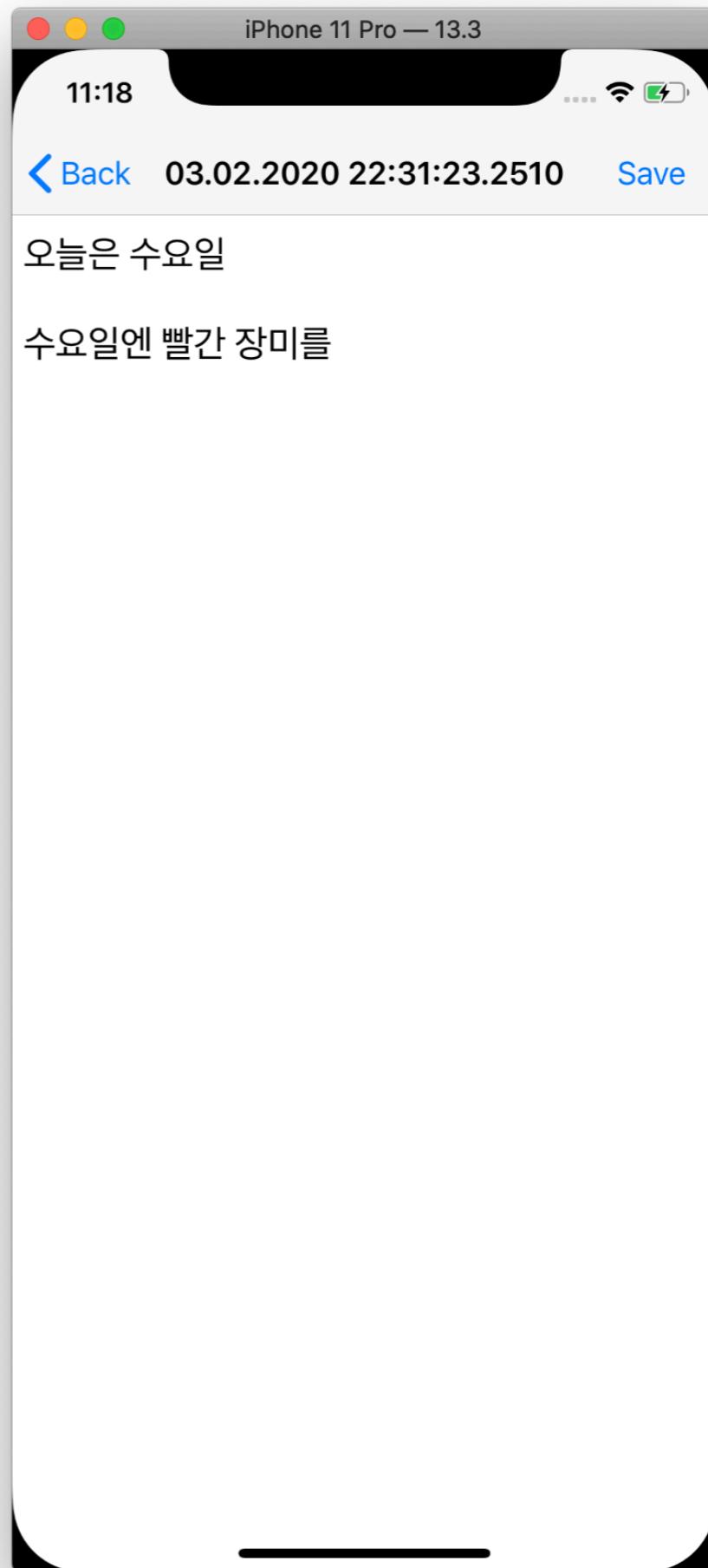
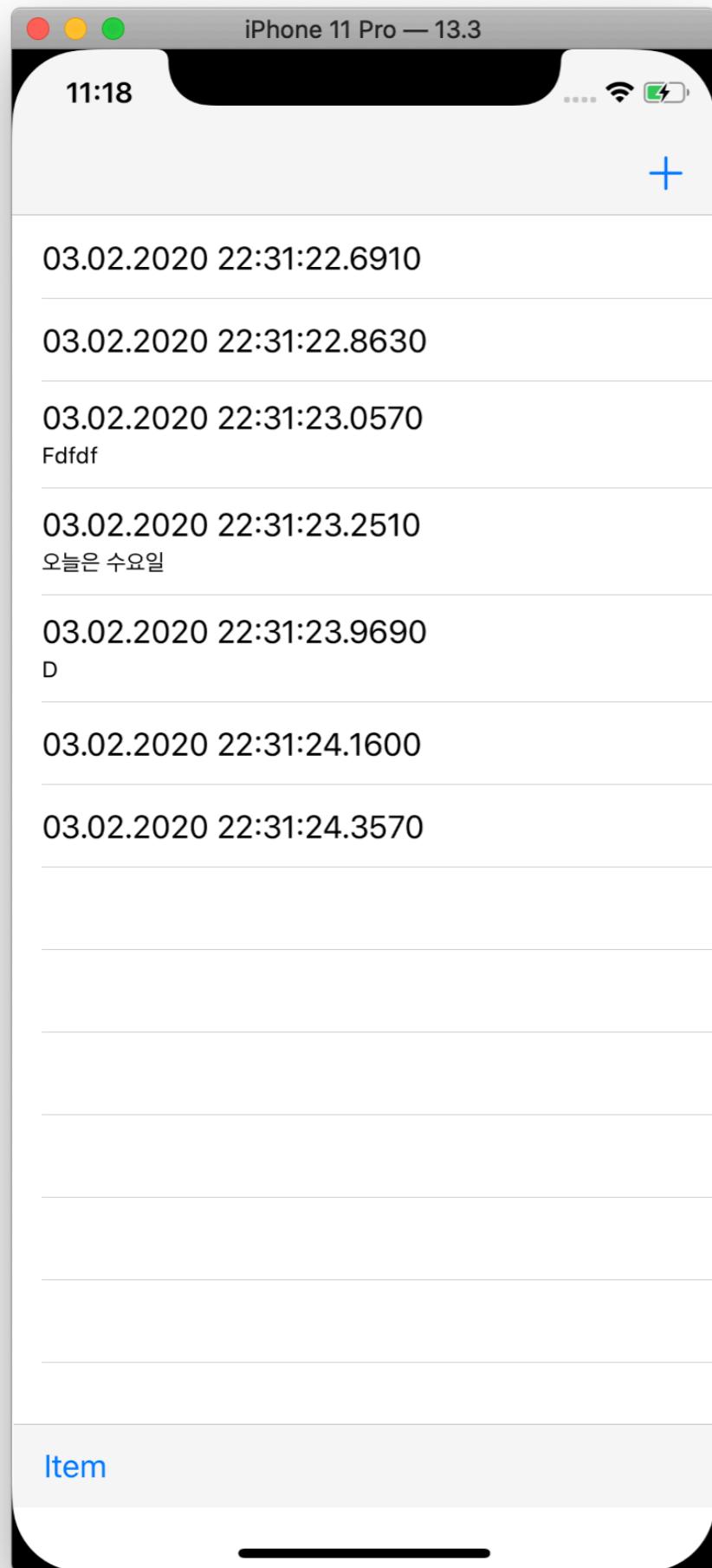
```
let 초급 = "3일-4일(월-화) 오후 1시-4시"  
let 중급 = "5일-6일(수-목) 오후 1시-4시"  
  
let 장소 = "@Mac실습실 (공과대학 5호관4층 414호)"  
let 신청방법 = "https://qrgo.page.link/HETGH"
```



Day #2 - 메모장 만들기

오늘의 목표

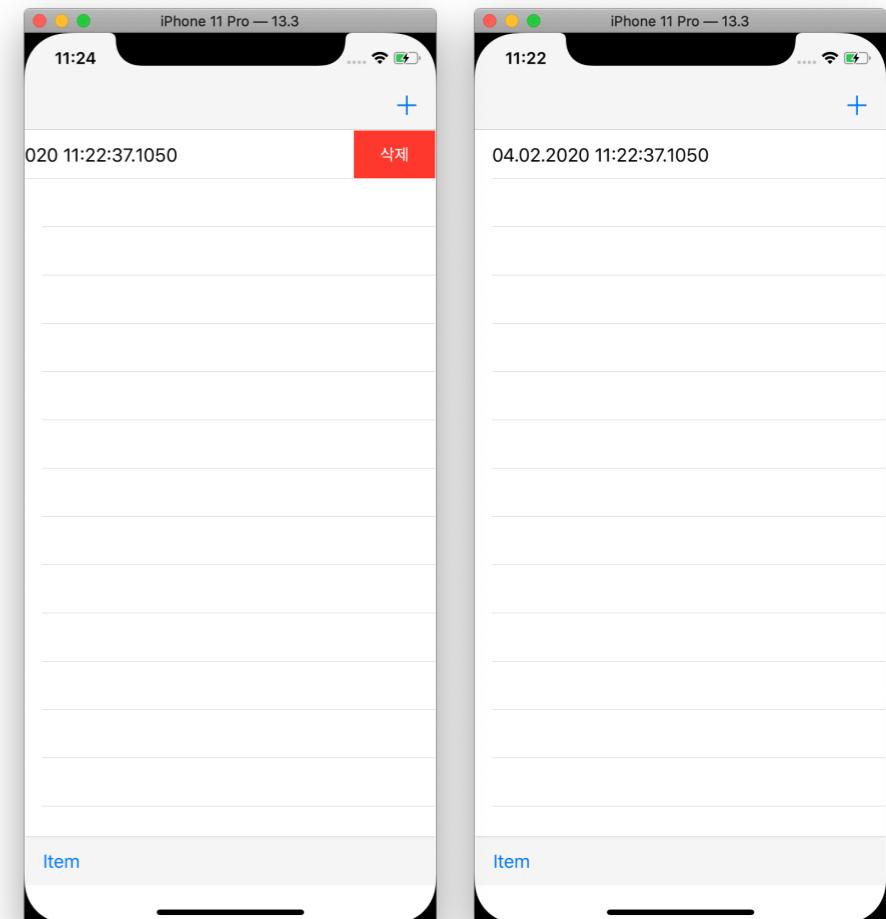
- 메모장 만들기
 - Navigation Controller (화면전환)
 - UserDefaults (데이터 저장)
 - UITableViewController
 - UITextView
 - Keyboard Actions ...



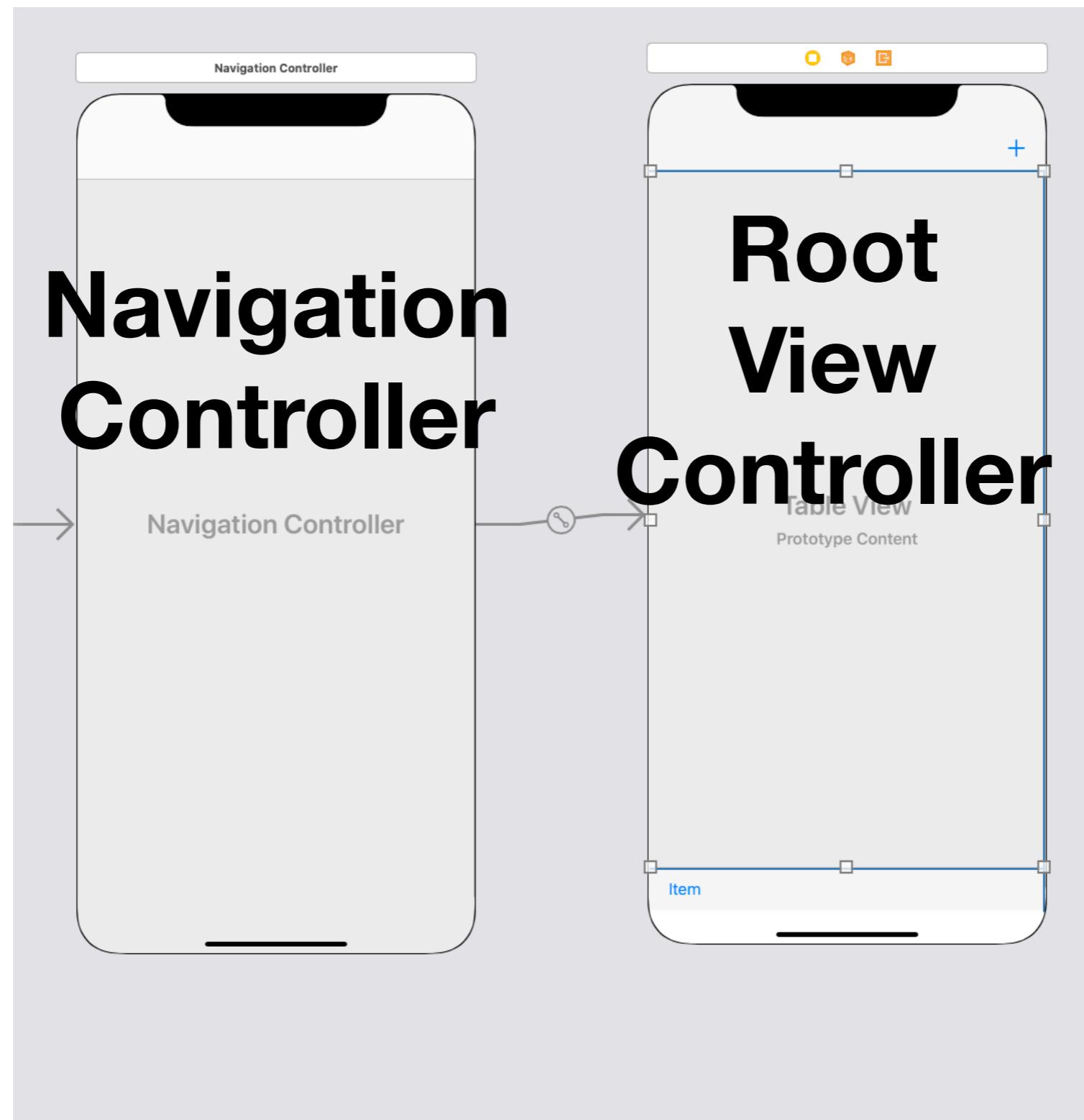
Level #1

Level #1 요구사항

- UITableView 를 사용하여 화면 구성
- [+] 버튼 추가
 - 누를 때마다, List에 현재 누른 시간 추가
- 제스터 이벤트 시, 삭제 요청



Navigation Controller

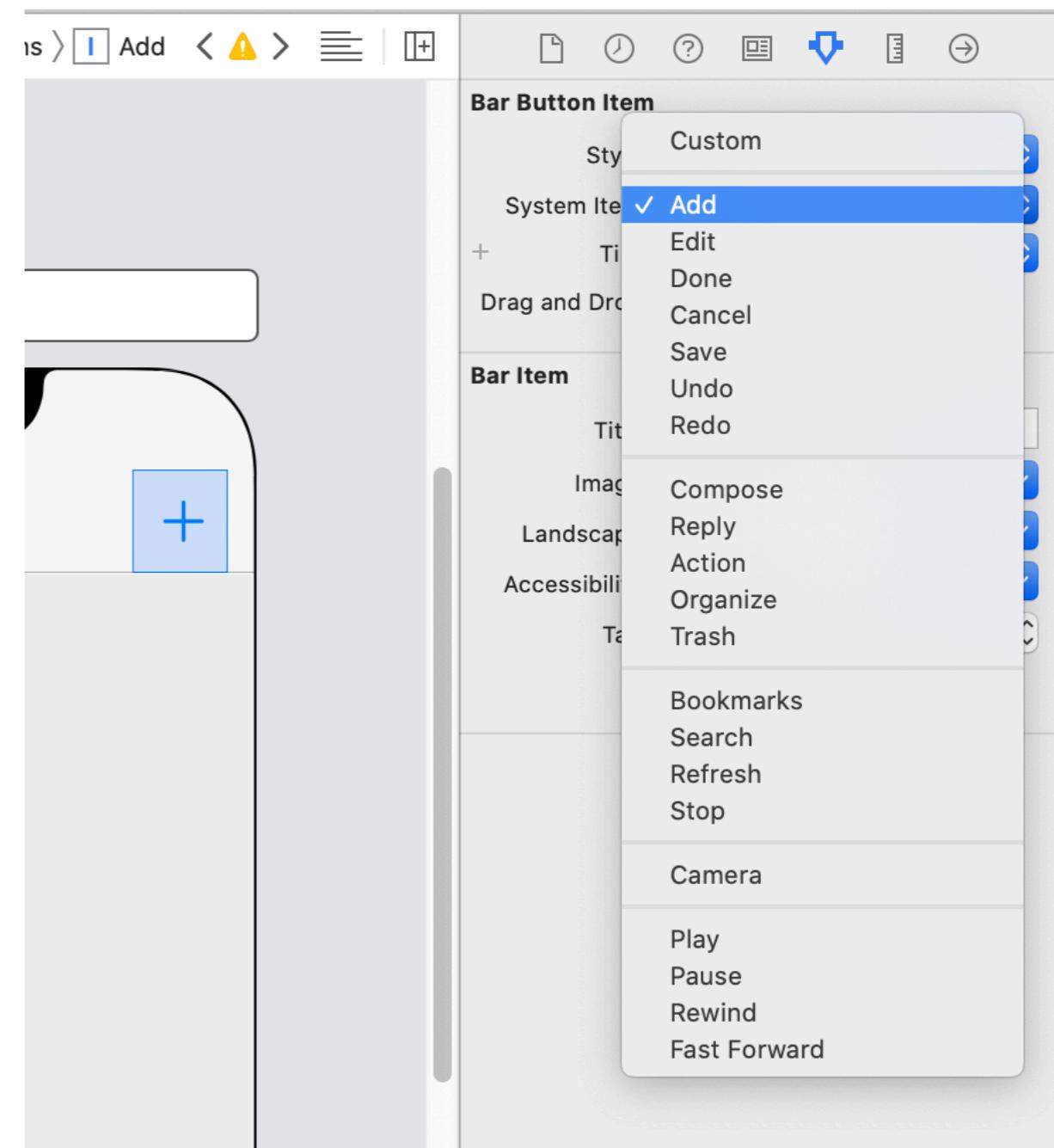
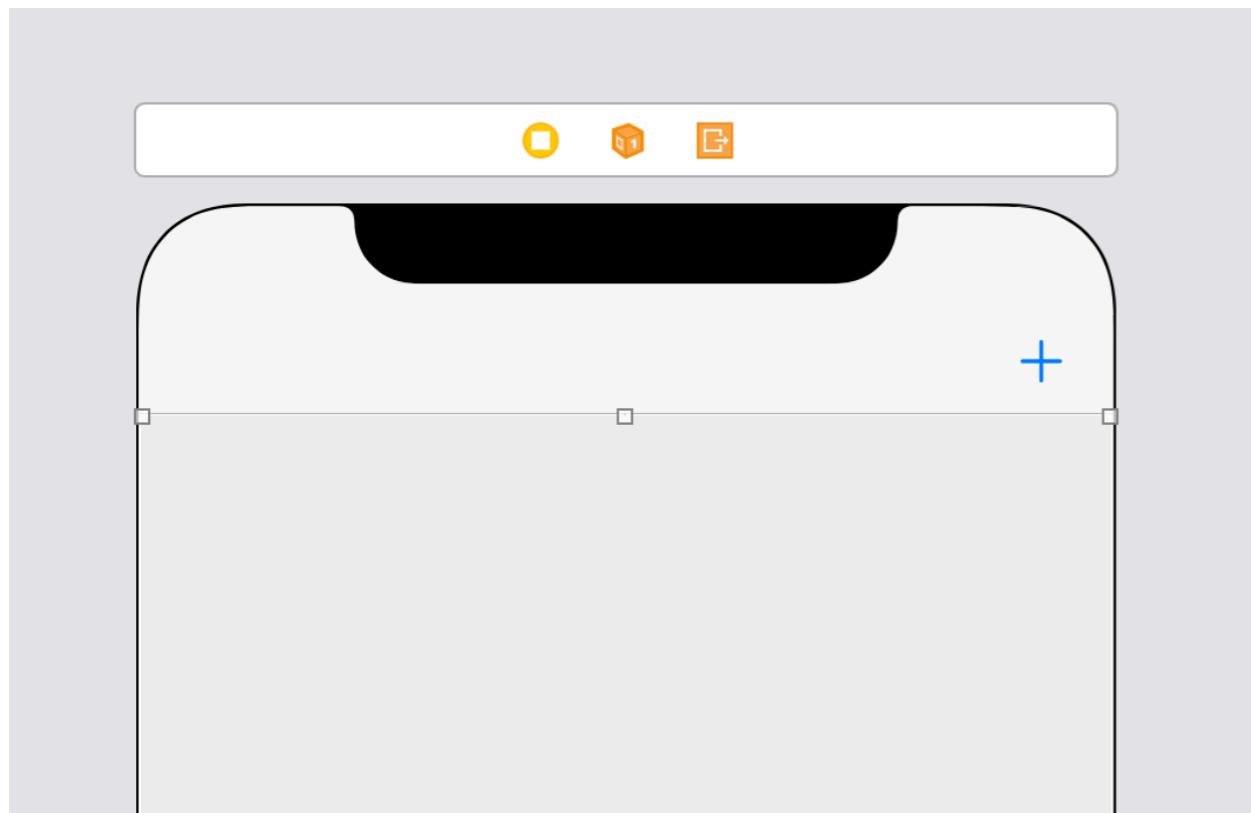


Navigation Root 등록

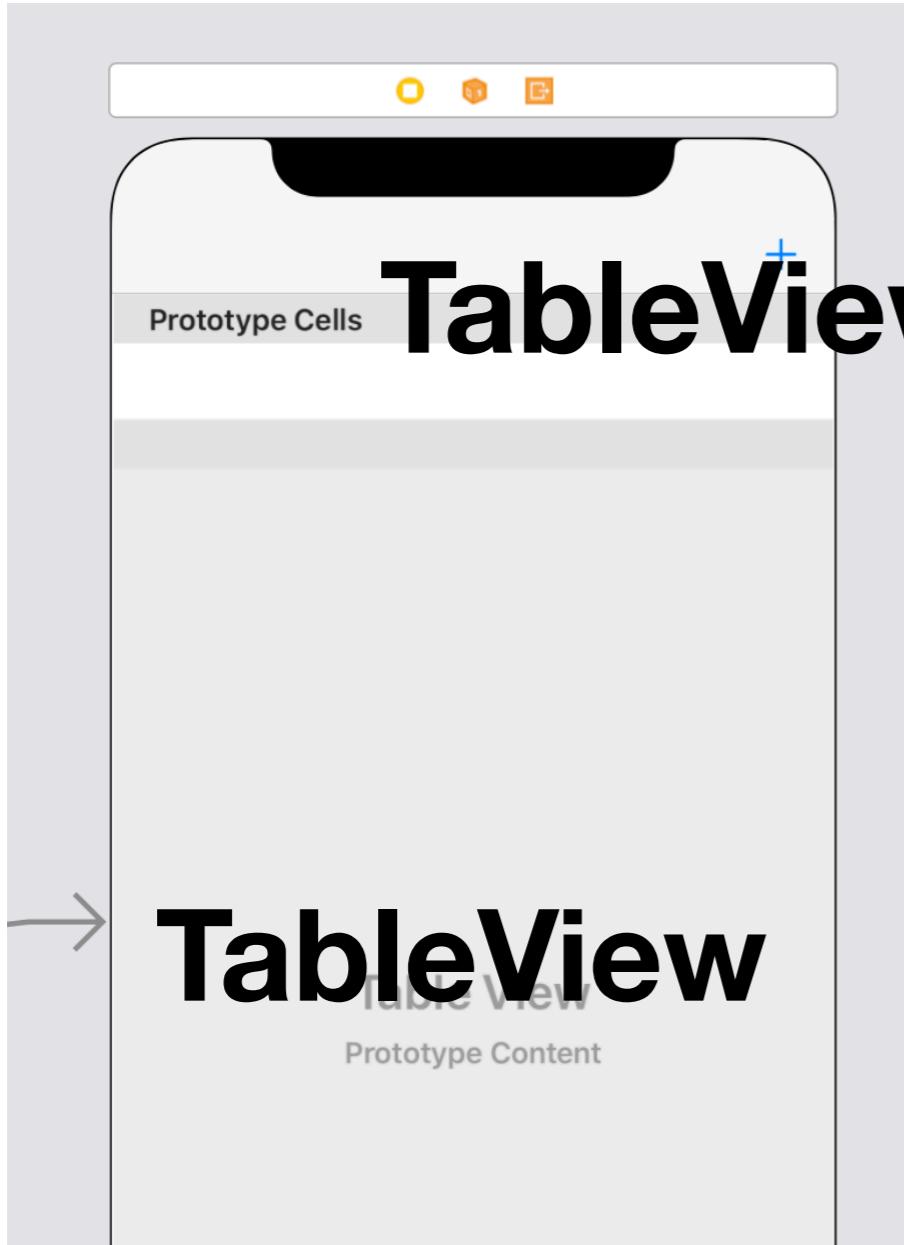


Manual Segue
Show
Show Detail
Present Modally
Present AsPopover
Custom
Relationship Segue
root view controller
Non-Adaptive Manual Segue
Push (deprecated)
Modal (deprecated)

Navigation Bar Item



UITableView



```
var list:[TimeInterval] = []
@IBOutlet var table: UITableView!
```

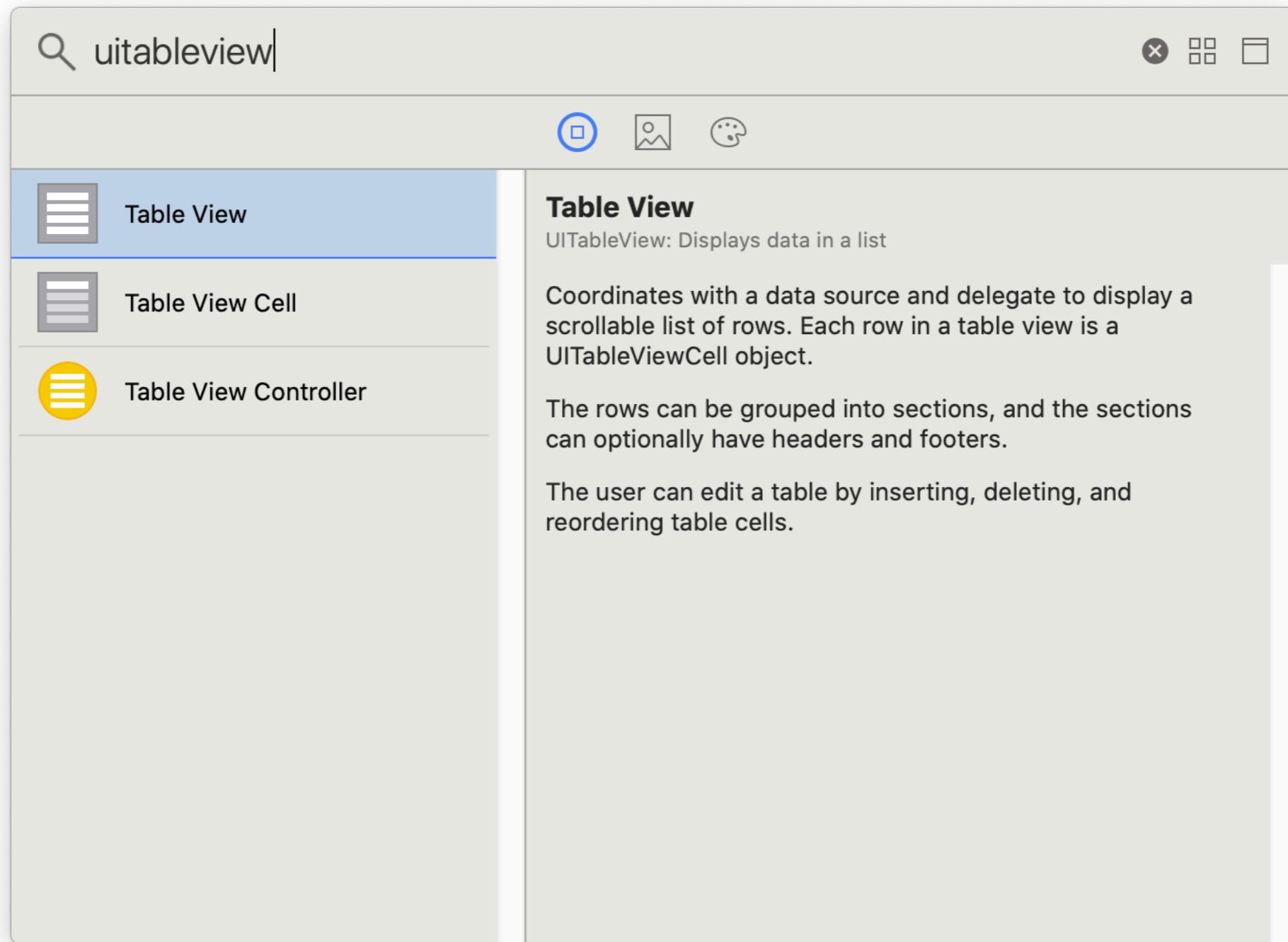
1. 데이터 리스트 구성

2. 화면에
데이터 표현
(Cell)

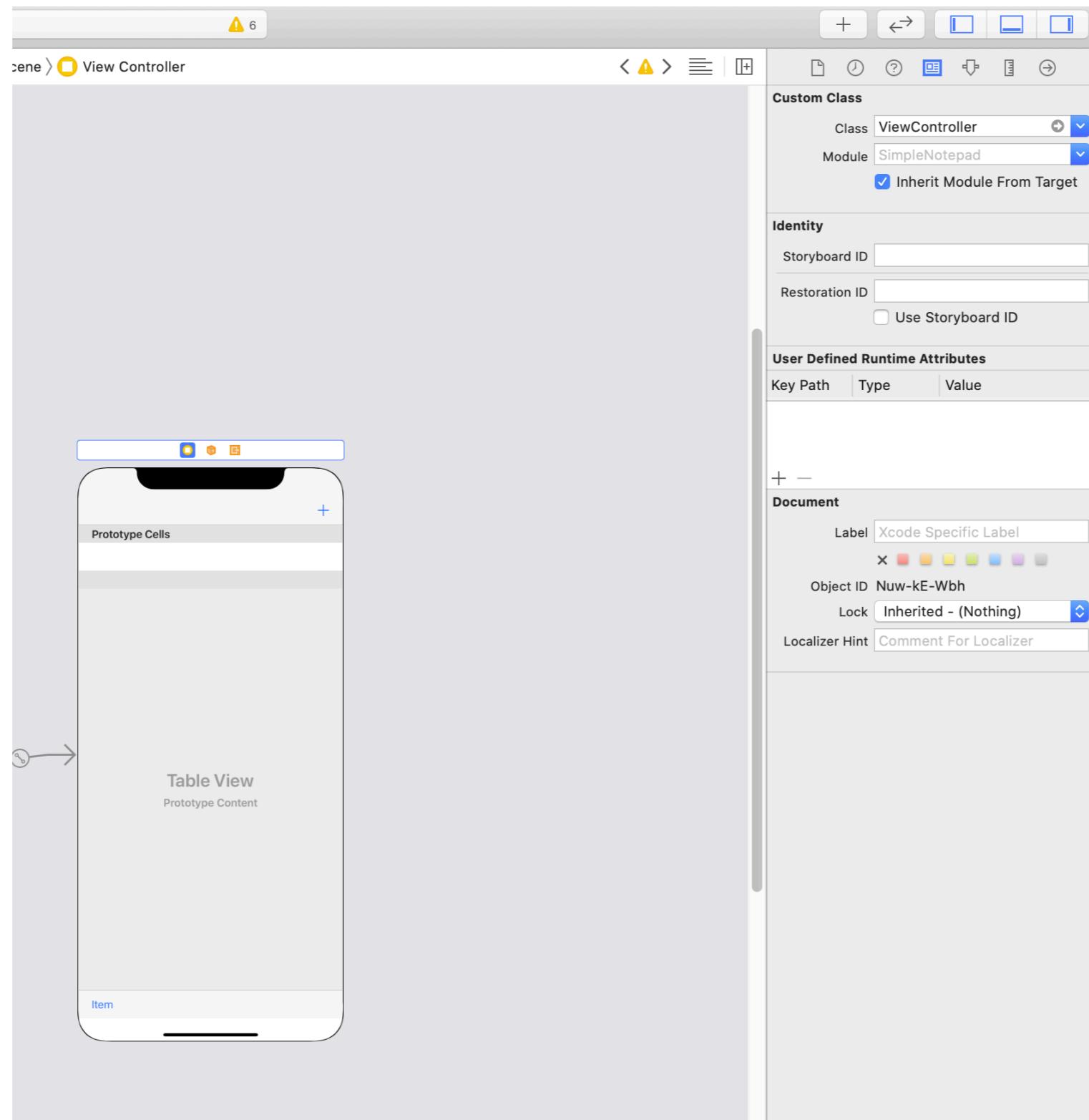
```
63 extension ViewController:UITableViewDelegate, UITableViewDataSource {
64     func tableView(_ tableView: UITableView, numberOfRowsInSection section: Int) -> Int {
65         return self.list.count
66     }
67
68     func tableView(_ tableView: UITableView, cellForRowAt indexPath: IndexPath) ->
69         UITableViewCell {
70         let cell = UITableViewCell()
71         cell.textLabel?.text = timeString(time: list[indexPath.row])
72         return cell
73     }
74 }
```

1. Table 구성하기

UIKit 검색해서 TableView 추가



ViewController 클래스 연결

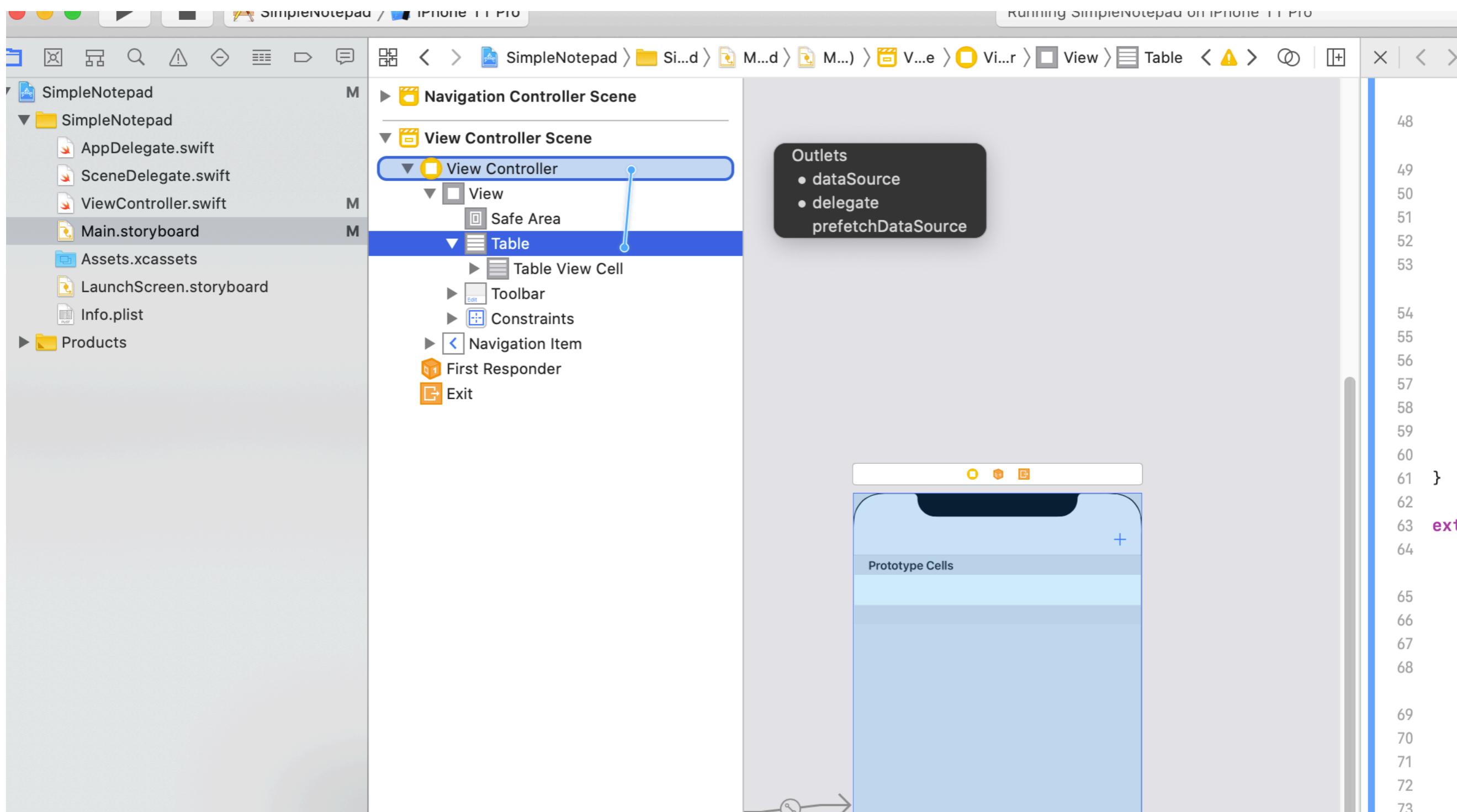


테이블 Outlet 연결 설정

The image shows a screenshot of the Xcode IDE. On the left, a storyboard is displayed for an iPhone screen. The screen contains a navigation bar at the top, followed by a table view. The table view has a prototype cell labeled "Prototype Cells". A blue line connects the bottom of this cell to a point on the right side of the screen, indicating a connection to an outlet. On the right, the Swift code for the View Controller is shown:

```
6 // Copyright © 2020 sanggilllee. All rights reserved
7 //
8
9 import UIKit
10
11 class ViewController: UIViewController {
12
13     var list:[TimeInterval] = []
14     @IBOutlet var table: UITableView!
15
16     Line 14
17
18     override func viewDidLoad() {
19         super.viewDidLoad()
20         // Do any additional setup after loading the
21
22
23     func makeNewDate()->TimeInterval {
24         let date = Date()
25         return date.timeIntervalSince1970
26     }
27
28     @IBAction func addNewMemo(_ sender: Any) {
29         let newtime = makeNewDate()
30         list.append(newtime)
31         table.reloadData()
32     }
33
34     func timeString(time:TimeInterval)->String {
35         let date = Date(timeIntervalSince1970: time)
36         let dateFormatter = DateFormatter()
37         let timezone = TimeZone.current.abbreviation
38             // get current TimeZone abbreviation or
39             dateFormatter.timeZone = TimeZone(abbreviati
40             timezone) //Set timezone that you want
41             dateFormatter.locale = NSLocale.current
42             dateFormatter.dateFormat = "dd.MM.yyyy HH:mm
43             //Specify your format that you want
44             let strDate = dateFormatter.string(from: dat
45             return strDate
46     }
47 }
```

TableViewDelegate, DataSource 연결



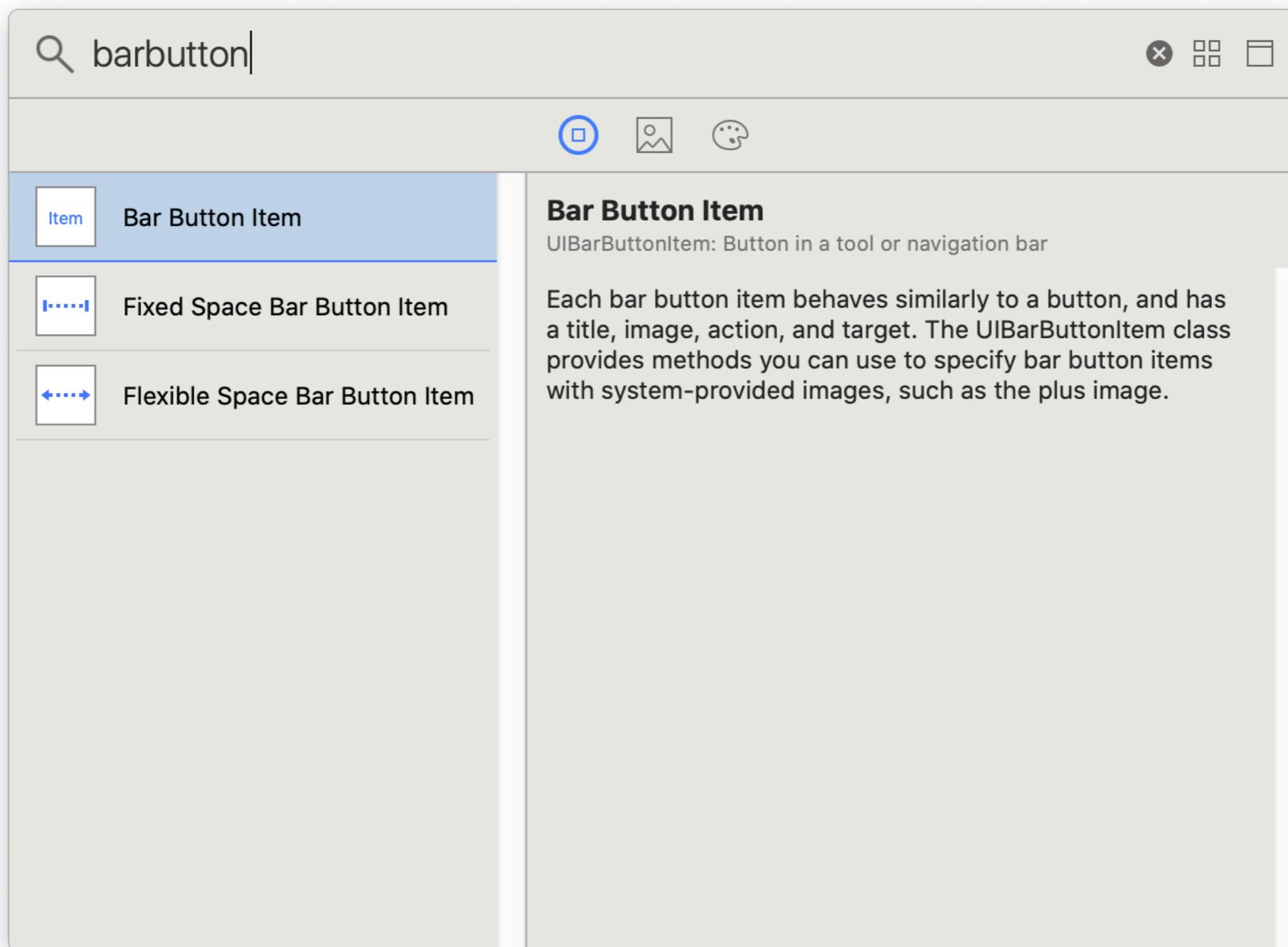
TableViewDelegate, DataSource 소스코드 등록

ViewController 하단에 Extension으로 등록

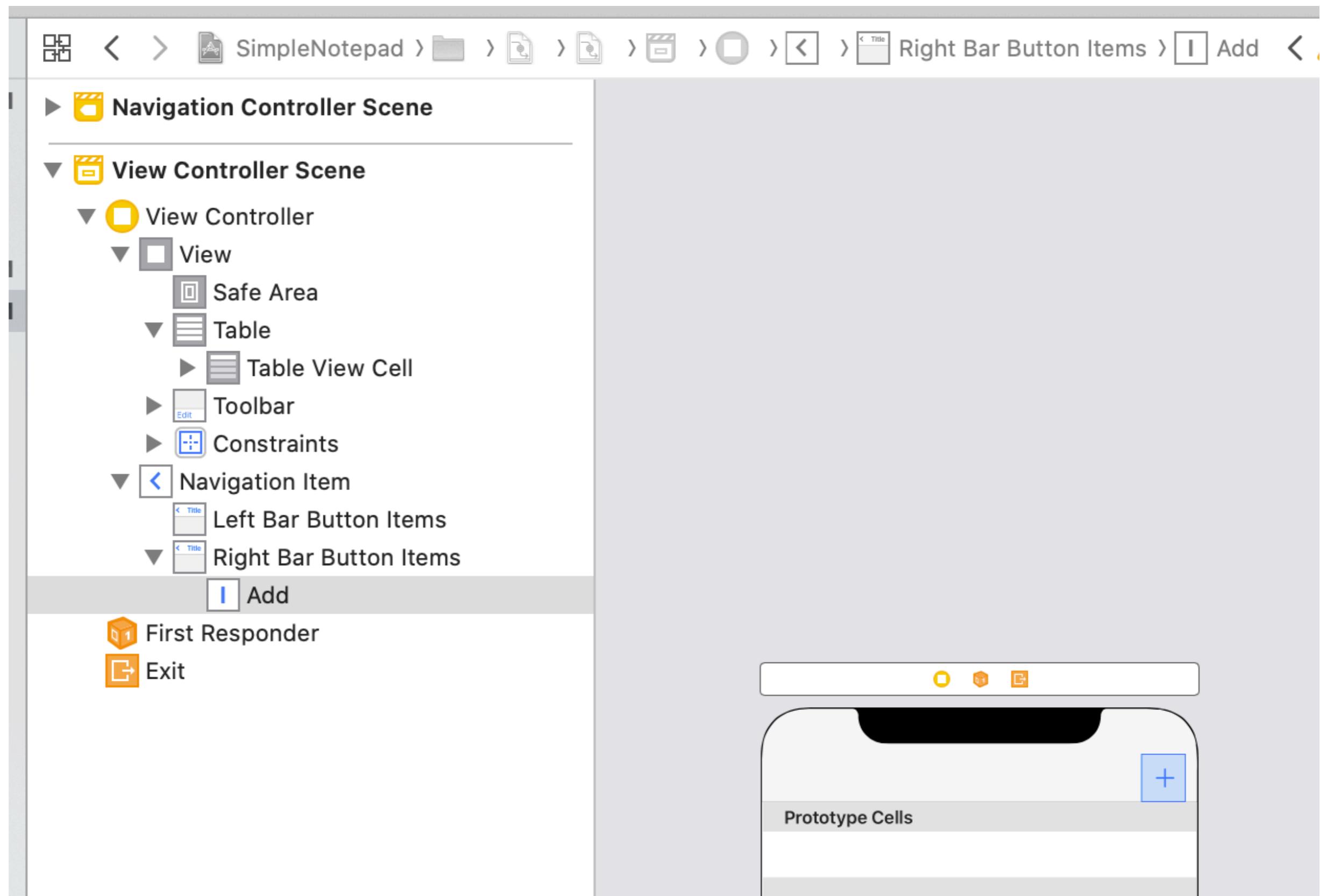
```
--  
62  
63 extension ViewController:UITableViewDelegate, UITableViewDataSource {  
64     func tableView(_ tableView: UITableView, numberOfRowsInSection section: Int) -> Int {  
65         return list.count  
66     }  
67  
68     func tableView(_ tableView: UITableView, cellForRowAt indexPath: IndexPath) -> UITableViewCell {  
69         let cell = UITableViewCell()  
70         cell.textLabel?.text = timeString(time: list[indexPath.row])  
71         return cell  
72     }  
73  
8  
9 import UIKit  
10  
11 class ViewController: UIViewController {  
12  
13     var list:[TimeInterval] = []  
14     @IBOutlet var table: UITableView!  
15  
16  
17     override func viewDidLoad() {  
18         super.viewDidLoad()  
19         // Do any additional setup after loading the view.  
20     }  
21  
22
```

2. 추가 버튼 구현하기

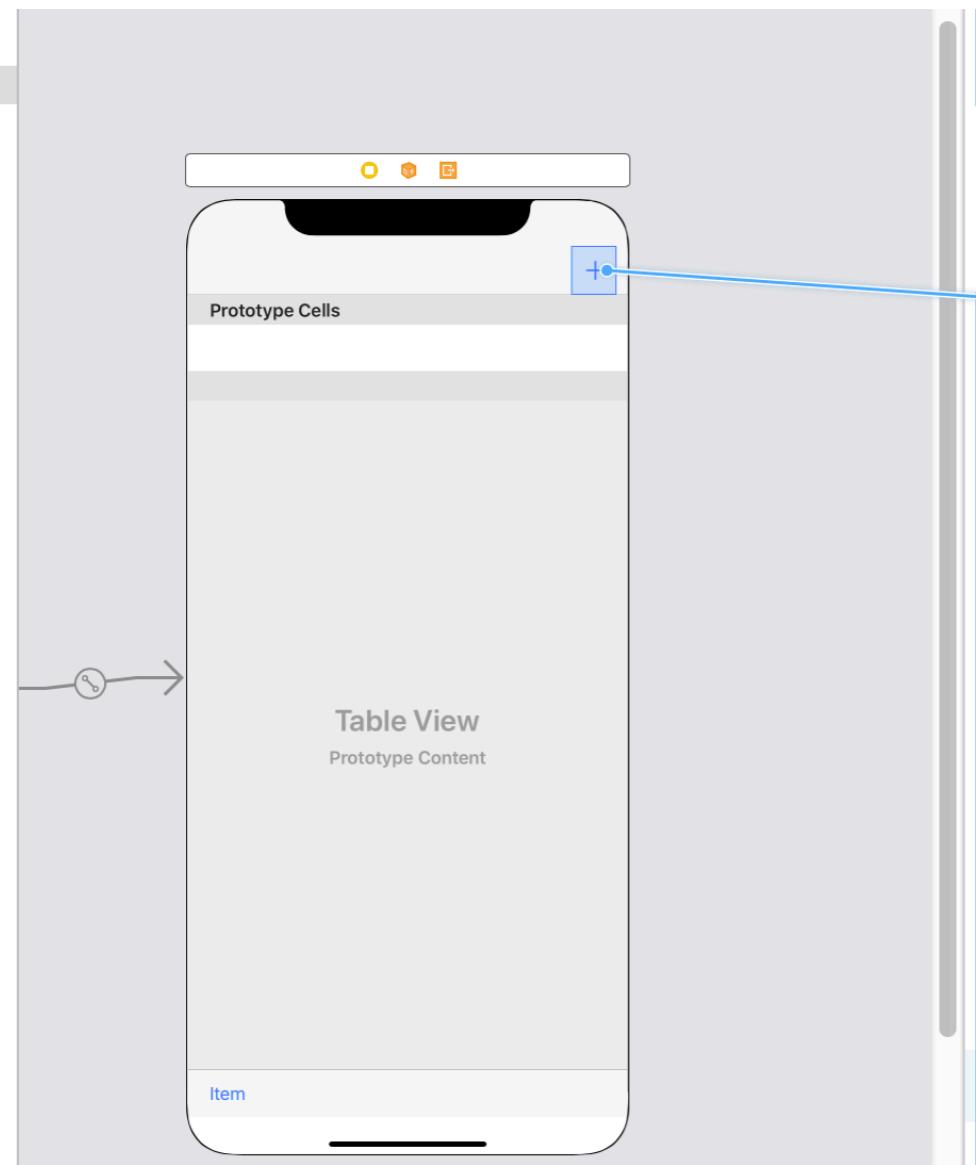
UIKit에서 Barbutton 검색



상단 네비게이션에 추가

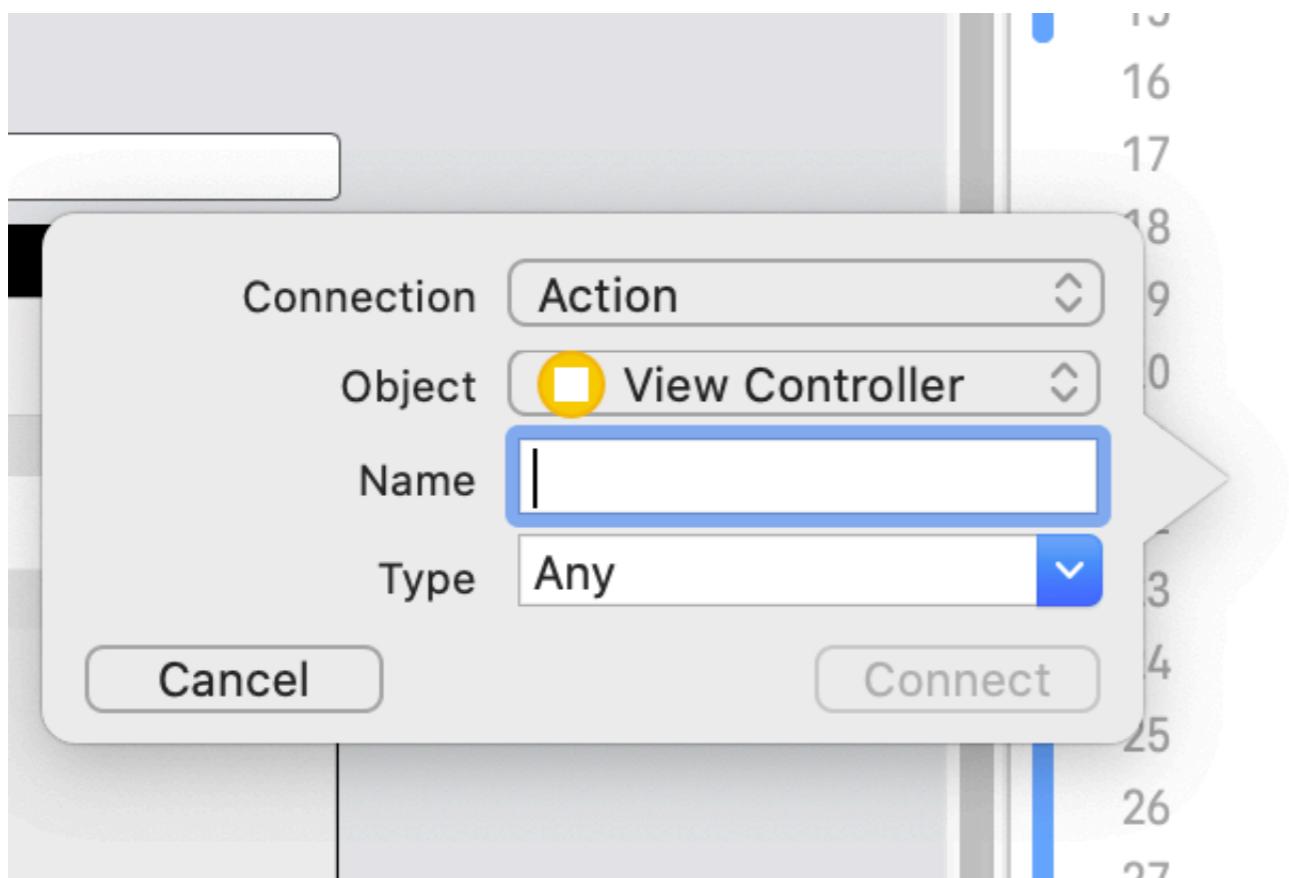


버튼의 Action 추가



```
13 var list:[TimeInterval] = []
14 @IBOutlet var table: UITableView!
15
16
17 override func viewDidLoad() {
18     super.viewDidLoad()
19     // Do any additional setup after loading the view.
20 }
21
22 Insert Action, Outlet, or Outlet Collection
23 func makeNewDate()->TimeInterval {
24     let date = Date()
25     return date.timeIntervalSince1970
26 }
27
28
29 @IBAction func addNewMemo(_ sender: Any) {
30     let newtime = makeNewDate()
31     list.append(newtime)
32     table.reloadData()
33 }
34
35 func timeString(time:TimeInterval)->String {
36     let date = Date(timeIntervalSince1970: time)
37     let dateFormatter = DateFormatter()
38     let timezone = TimeZone.current.abbreviation() ?? "CET"
39     current TimeZone abbreviation or set to CET
40     dateFormatter.timeZone = TimeZone(abbreviation: timezone)
41     timezone that you want
42     dateFormatter.locale = NSLocale.current
43     dateFormatter.dateFormat = "dd.MM.yyyy HH:mm:ss.SSSS" //S
44     your format that you want
45     let strDate = dateFormatter.string(from: date)
46 }
```

버튼의 Action 추가



```
override func viewDidLoad() {  
    super.viewDidLoad()  
    // Do any additional setup after loading the view.  
}  
  
func makeNewDate() -> TimeInterval {  
    let date = Date()  
    return date.timeIntervalSince1970  
}
```

메모 추가 버튼 함수 작성

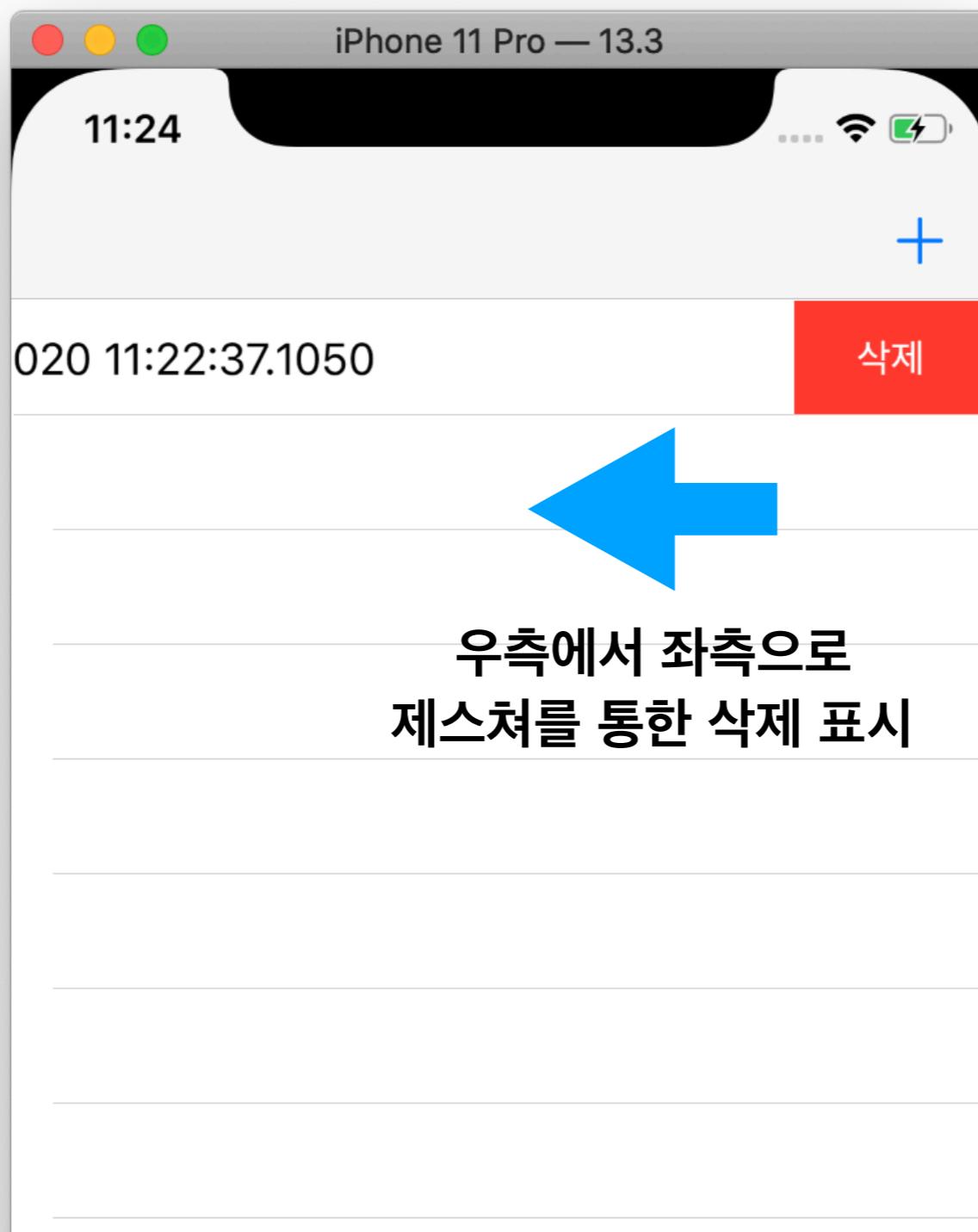
```
--  
22  
23     func makeNewDate() -> TimeInterval {  
24         let date = Date()  
25         return date.timeIntervalSince1970  
26     }  
27  
28 @IBAction func addNewMemo(_ sender: Any) {  
29     let newtime = makeNewDate()  
30     list.append(newtime)  
31     table.reloadData()  
32 }  
33
```

셀에 보여지는 텍스트를 위한 함수 작성

```
33
34 func timeString(time:TimeInterval) -> String {
35     let date = Date(timeIntervalSince1970: time)
36     let dateFormatter = DateFormatter()
37     let timezone = TimeZone.current.abbreviation() ?? "CET" // get
38         current TimeZone abbreviation or set to CET
39     dateFormatter.timeZone = TimeZone(abbreviation: timezone) // Set
40         timezone that you want
41     dateFormatter.locale = NSLocale.current
42     dateFormatter.dateFormat = "dd.MM.yyyy HH:mm:ss.SSSS" // Specify
43         your format that you want
44     let strDate = dateFormatter.string(from: date)
45     return strDate
46 }
```

3. 삭제 액션 추가하기

삭제 액션이란?

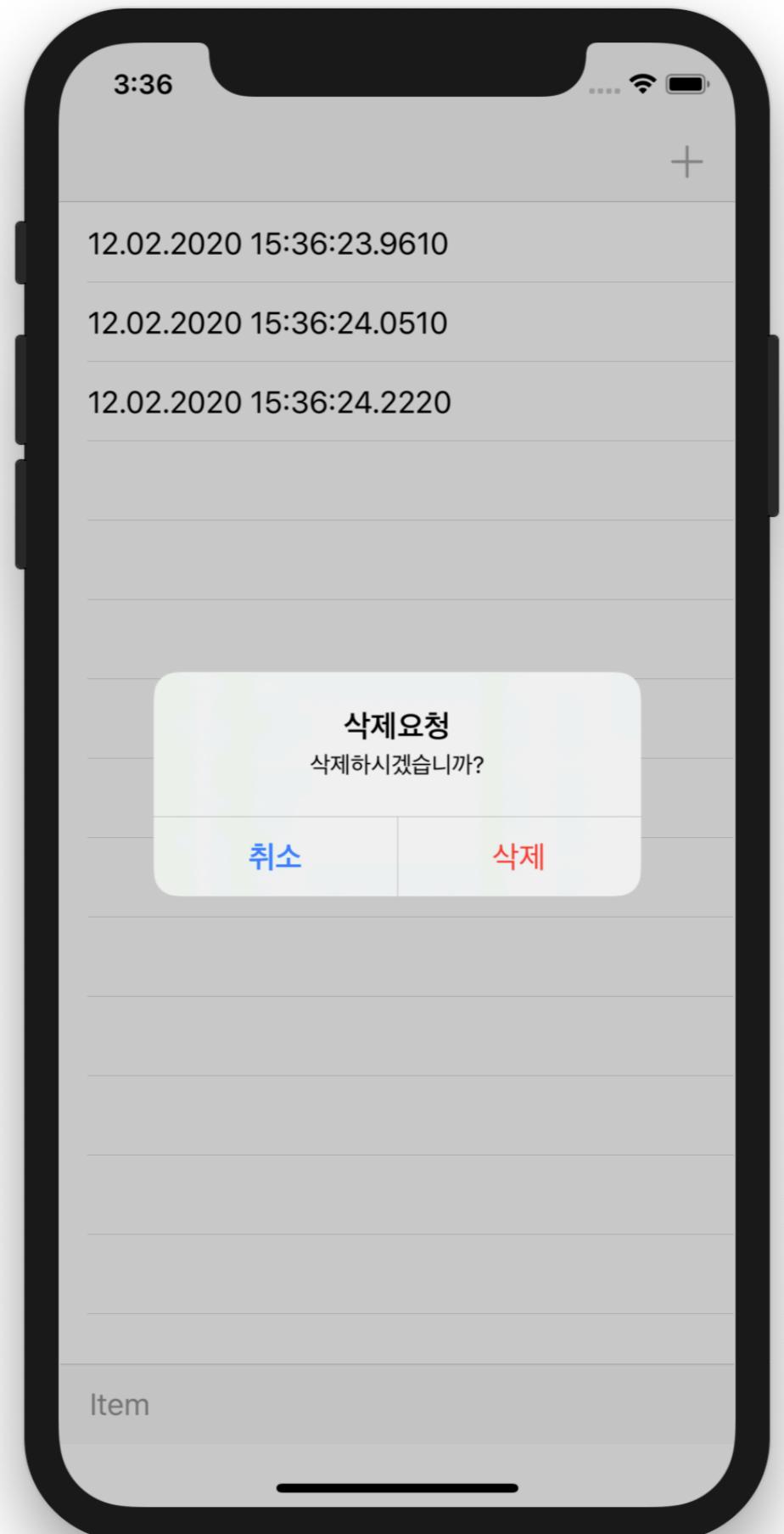


테이블 뷰 관련 CallBack 함수 구현 (editActionsForRowAt)

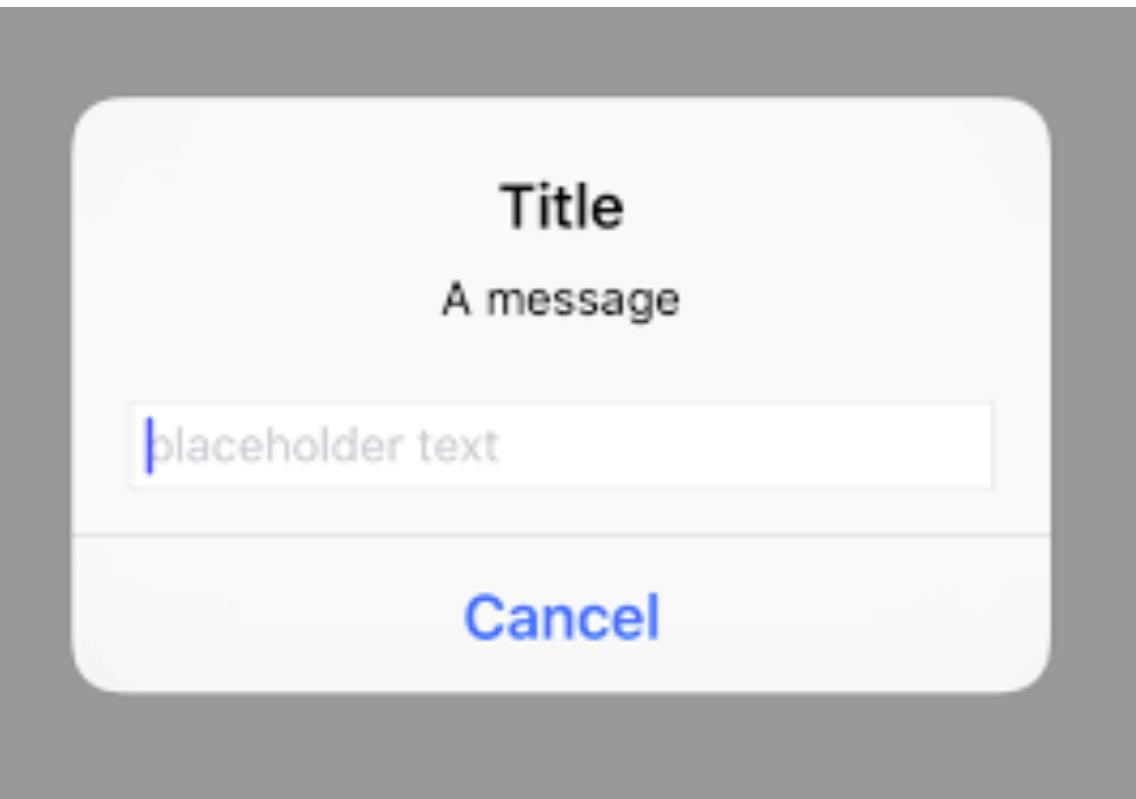
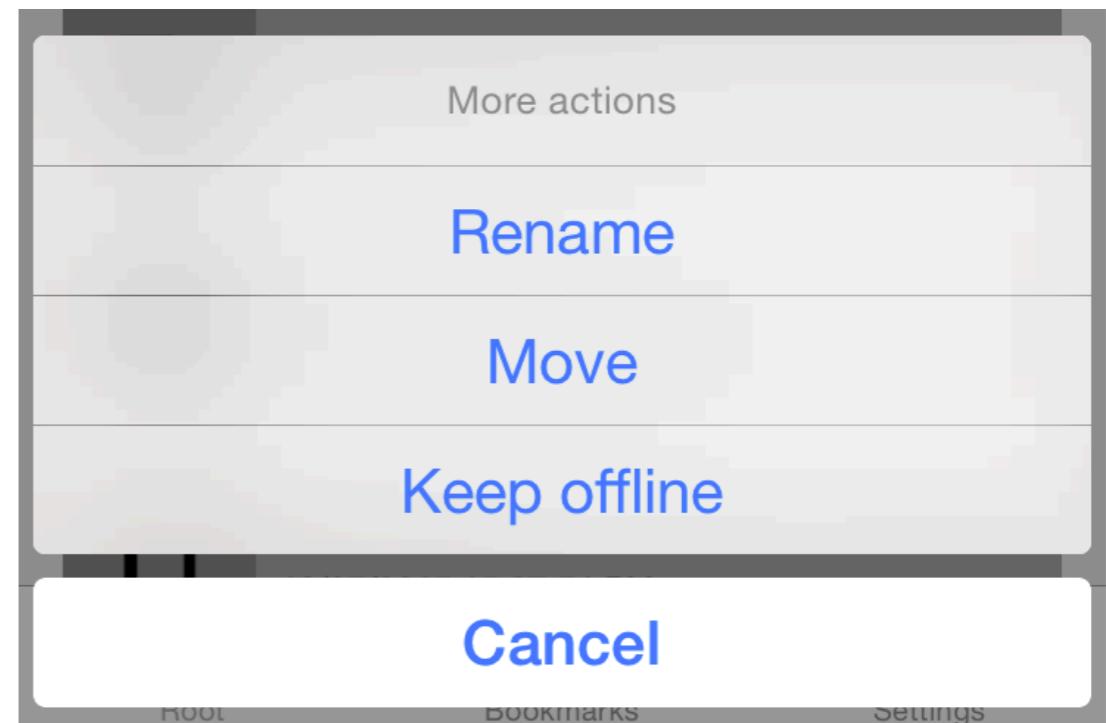
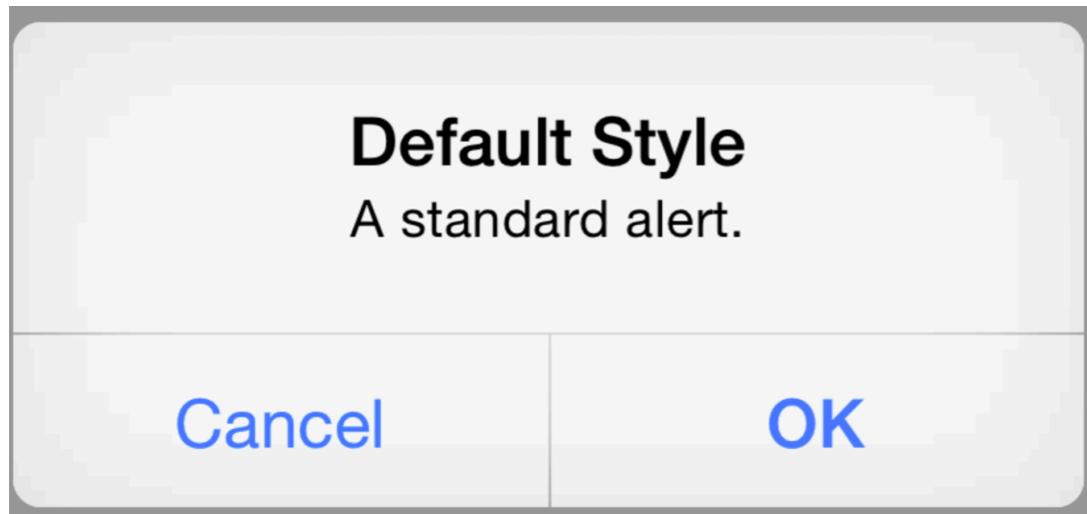
```
52
53 extension ViewController: UITableViewDelegate, UITableViewDataSource {
54     func tableView(_ tableView: UITableView, numberOfRowsInSection section: Int) -> Int {
55         return list.count
56     }
57
58     func tableView(_ tableView: UITableView, cellForRowAt indexPath: IndexPath) -> UITableViewCell {
59         let cell = UITableViewCell()
60         cell.textLabel?.text = timeString(time: list[indexPath.row] )
61         return cell
62     }
63
64     func tableView(_ tableView: UITableView, editActionsForRowAt indexPath: IndexPath) -> [UITableViewRowAction]? {
65         let deleteAction = UITableViewRowAction(style:
66             .destructive, title: "삭제") { (action, indexPath) in
67
68             self.list.remove(at: indexPath.row)
69             self.table.reloadSections(IndexSet(0...0), with:
70                 .automatic)
71
72         }
73
74         return [deleteAction]
75     }
76
77 }
```

정말 이것만 하면 된다?
된다!

4. Alert 추가하기



UIAlertController ()



삭제 요청 함수 추가

```
44
45 // Step 2
46 func requestRemoveItem(at:Int) {
47     let alert = UIAlertController(title: "삭제요청", message:
48         "삭제하시겠습니까?", preferredStyle: .alert)
49     let deleteAction = UIAlertAction(title: "삭제", style:
50         .destructive) { (action) in
51         //
52         self.list.remove(at: at)
53         self.table.reloadSections(IndexSet(0...0), with: .automatic)
54     }
55     let cancelAction = UIAlertAction(title: "취소", style: .cancel,
56         handler: nil)
57
58     self.present(alert, animated: true, completion: nil)
59 }
60
61 }
62 }
```

editActionsForRowAt

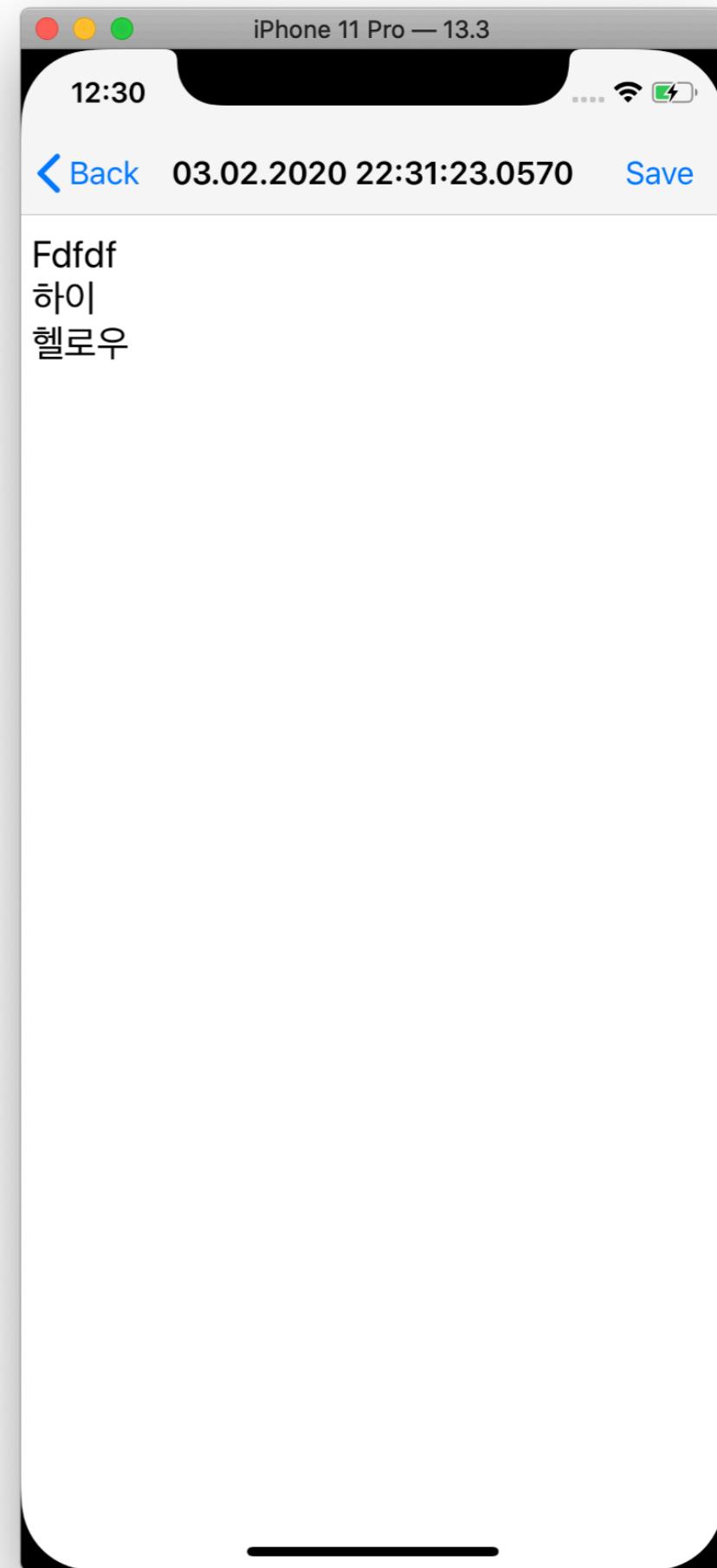
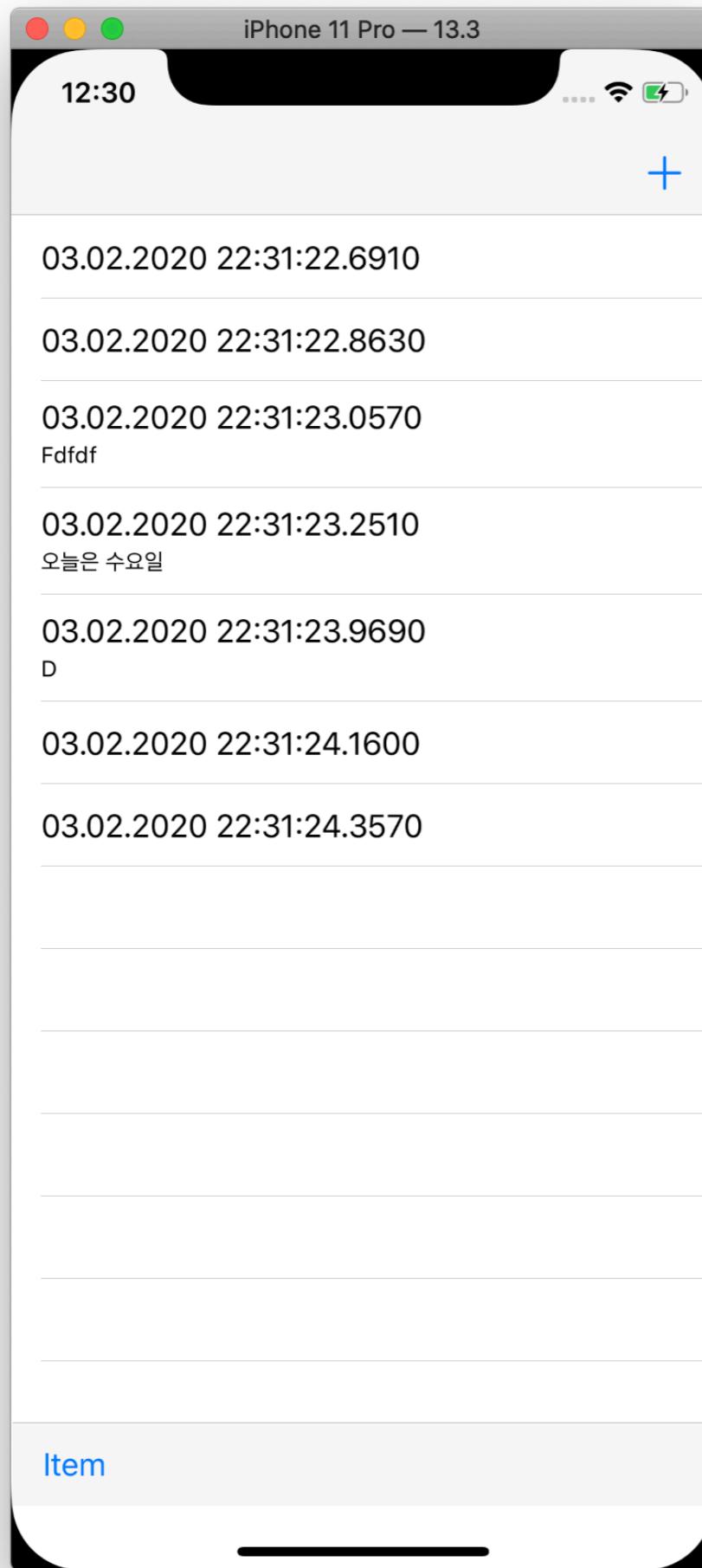
함수 수정

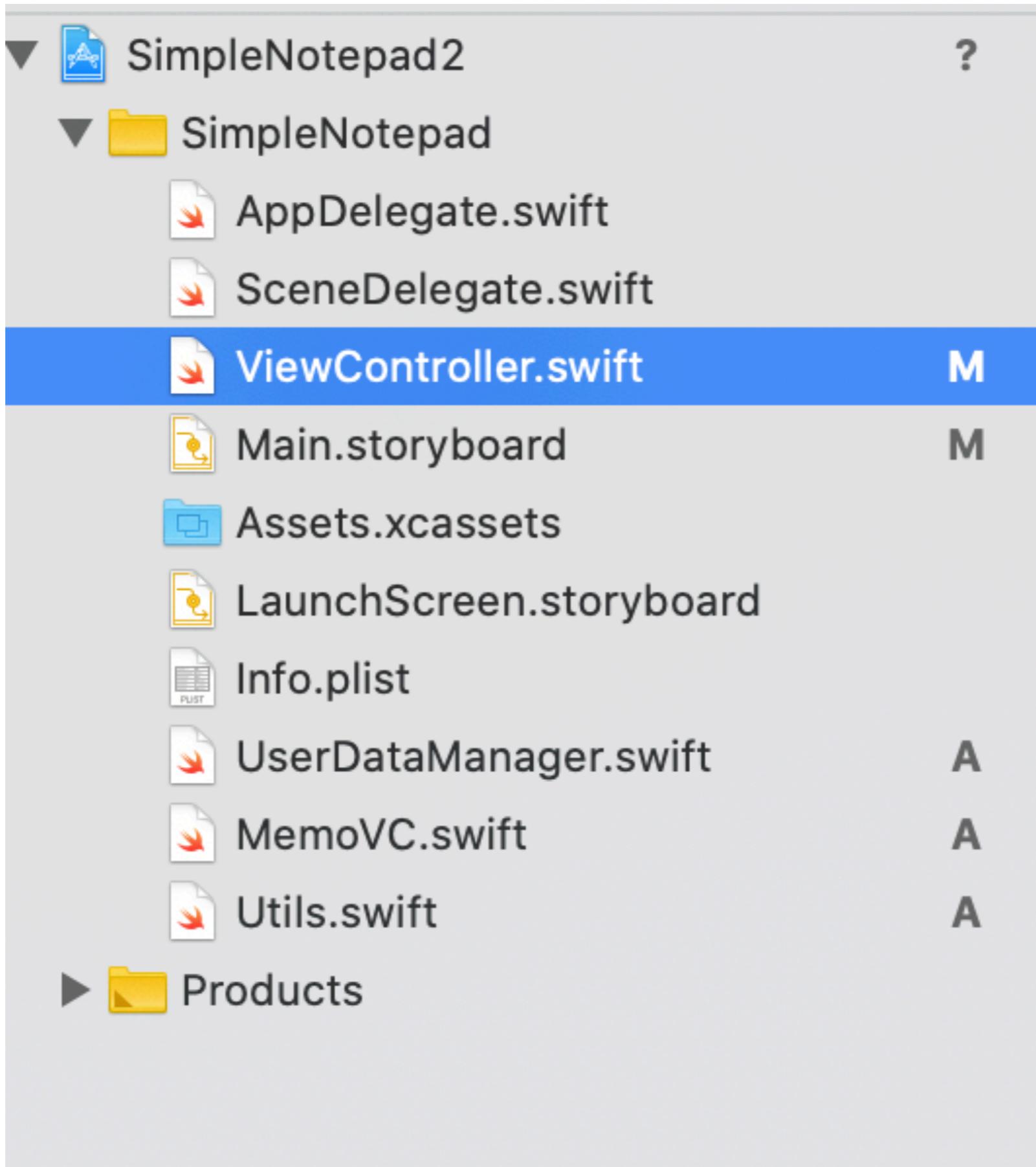
```
func tableView(_ tableView: UITableView, editActionsForRowAt  
indexPath: IndexPath) -> [UITableViewRowAction]? {  
    let deleteAction = UITableViewRowAction(style:  
        .destructive, title: "삭제") { (action, indexPath) in  
        /* step 1  
         self.list.remove(at: indexPath.row)  
         self.table.reloadSections(IndexSet(0...0), with:  
             .automatic)  
        */  
  
        // Step 2  
        self.requestRemoveItem(at: indexPath.row)  
    }  
  
    return [deleteAction]  
}
```

Level #2

Level #2 요구사항

- 데이터 저장 기능 적용
 - 각 메모의 Key : 생성된 TimestampString
- 테이블에서 생성된 날짜 선택 시, 메모 작성으로 이동
- 메모 화면에서 우측 상단에 저장 버튼 추가
- 메모 저장





UserDefaults

```
func saveList(with key:String, list:[TimeInterval])->Bool {  
    UserDefaults.standard.set(list, forKey: key)  
    UserDefaults.standard.set  
    ! Ambiguous use of '  
    M Void set(url: URL?, forKey: String)  
}  
M Void set(value: Any?, forKey: String)  
M Void set(value: Bool, forKey: String)  
M Void set(value: Double, forKey: String)  
M Void set(value: Float, forKey: String)  
M Void set(value: Int, forKey: String)  
M Void setVolatileDomain(domain: [String : Any], forName: String)  
M Void setPersistentDomain(domain: [String : Any], forName: String)  
}
```

```
= let list = UserDefaults.standard.value(forKey: key) as? [TimeInterval] {  
    UserDefaults.standard.va  
    ! Value of type 'UserDefaults' has no member 'va'  
    ref M Any? value(forKey: String)  
    M Any? value(forKeyPath: String)  
    M Void validateValue(ioValue: AutoreleasingUnsafeMutablePointer<AnyObject?>, forKey: String) throws  
    M Any? value(forKey: String)  
    M Void validateValue(ioValue: AutoreleasingUnsafeMutablePointer<AnyObject?>, forKeyPath: String) throws  
getMen V String? accessibilityValue  
= let V Int hashValue  
    userDefaults.timeForKey(timestampString) as? String {  
        No Selection
```

1. 데이터 저장 추가하기

2. 메모 화면 추가하기

3. 메모 저장 기능 추가

Level #3 Extra..

1. 폴더 기능 추가