Swift Study 07

2016. 12.10

Swift 문법 & ios

- type casting(형변환)
- double question (??)
- Segue
- UITableView

Type Casting - type check

- is 라는 키워드로 type 확인
- 연산에 대한 return은 Bool (true / false)

형식)

[비교대상] is [비교타입]

=> 비교결과 (true / false)

```
let text = 123

if text is String {
    print("String형입니다.")
} else if text is Int {
    print("Int형입니다.")
} else{
    print("다른 타입입니다.")
}


// 결과는 "Int형입니다."
```

Type Casting - as 키워드

- as라는 키워드로 형변환 (상속 관련 부모-자식 관계타입)
- as뒤에 !, ?으로 옵셔널을 사용가능

형식)

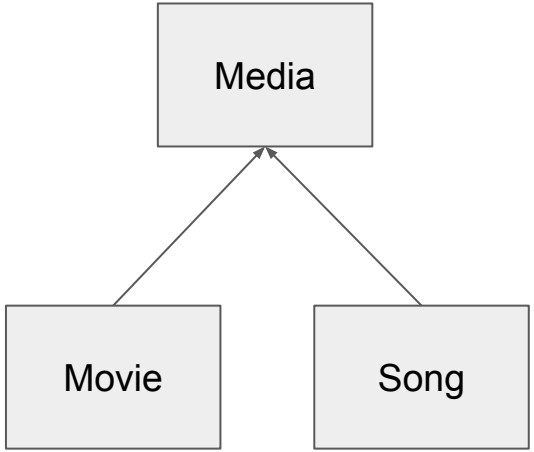
[타입변환 대상] as [변환타입]

as! : 옵셔널 force unwrapping
as?: 옵셔널 타입

```
let text = 123 as Double
// text => Int -> Double

// super: Media, sub: Movie

let movie = media as Movie
// media => Media -> Movie
```

Type Casting - upcasting/downcasting

- as라는 키워드로 형변환 (상속 관련 부모-자식 관계타입)
- upcasting / downcasting 으로 구분



upcasting

```
let media = movie as Media
```

downcasting

```
let song = media as Song
```

Double Question - ??

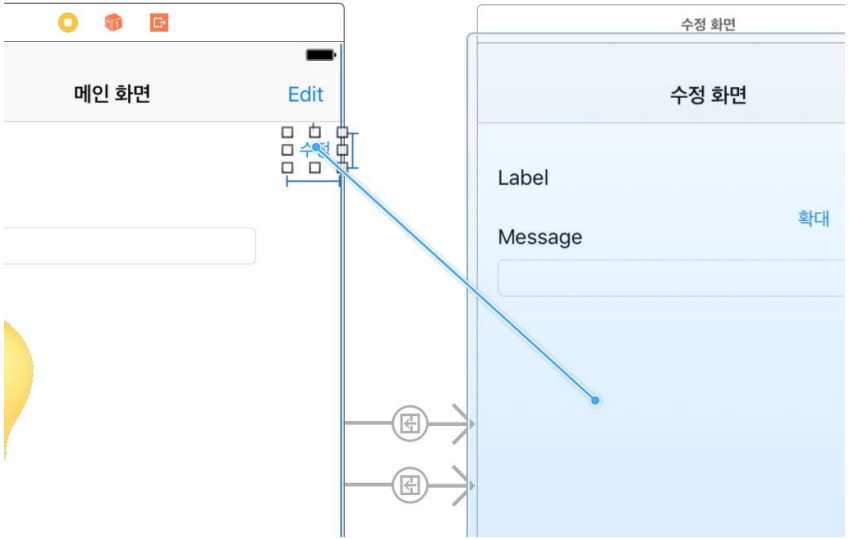
- 옵셔널에 대한 null 처리에 대한 축약 연산자 (3항 연산자의 응용)
- nil 비교 후의 결과값을 (force unwrapping) 하거나 (??뒤의 값)을 적용

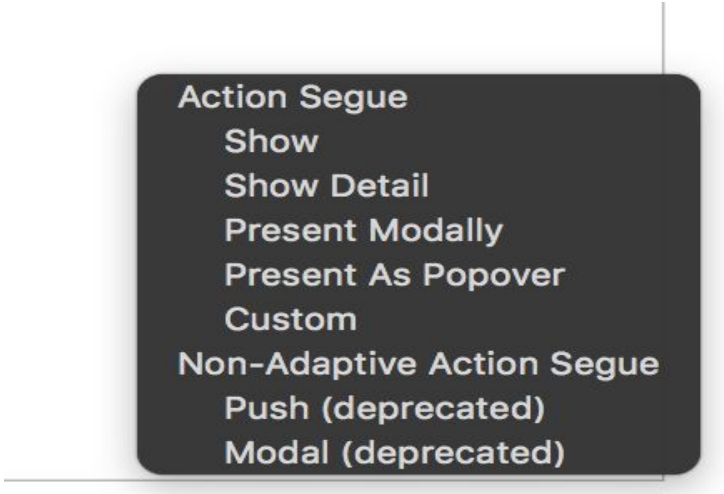
```
let str:String? = "test"
let test = str ?? "empty"

=> str != nil ? str! : “empty”
```

```
let str1:String? = "test"
let test = str1 ?? "empty"
=> “test”

let str1:String? = nil
let test2 = str1 ?? "empty"
=> “empty”
```

Segue

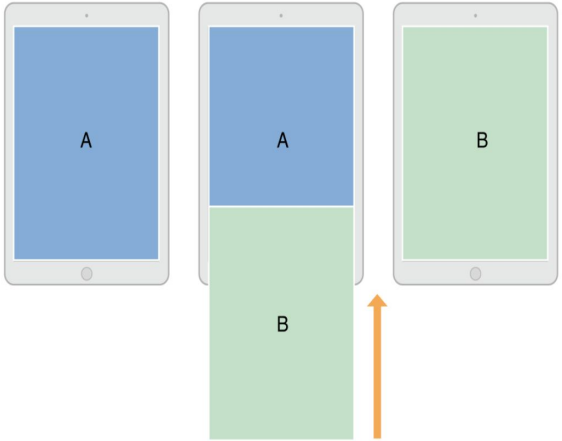
- 화면전환에 대한 식별자 (안드로이드: intent와 유사)
- 화면전환에는 직접 UI에 대한 presentController를 호출하거나 Segue 식별자로 전환방식
- IB(interface builder)에는 segue에 대한 화면전환 action 제공
- UIController 또는 UIControl를 상속받는 대상만 사용가능

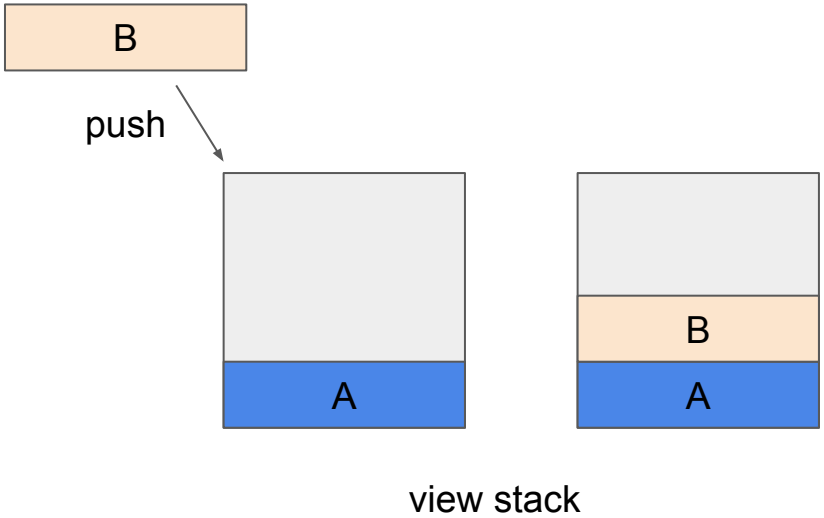




Segue - Show (push)

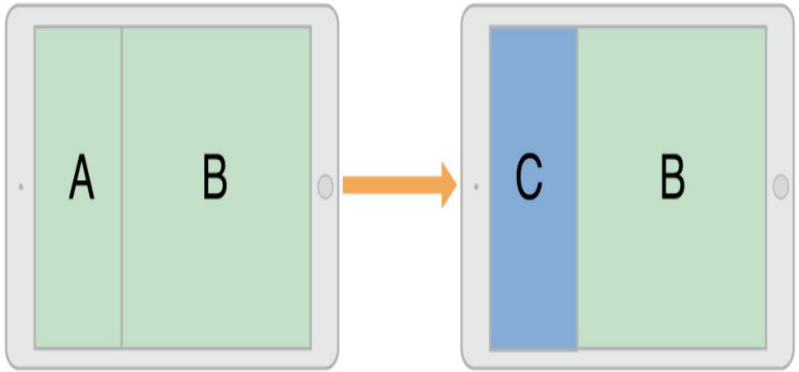
- 전환할 화면을 뷰스택에 쌓으면서 보여주는 화면형태
- 가장 일반적인 화면전환 (ios8부터 push 대신 show 대치됨 / push는 deprecate)





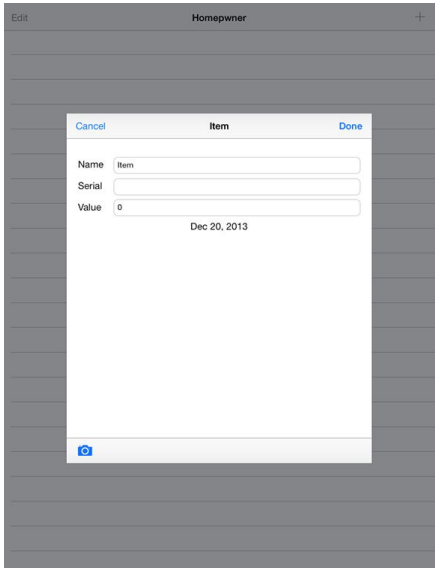
Segue - Show Detail (replace)

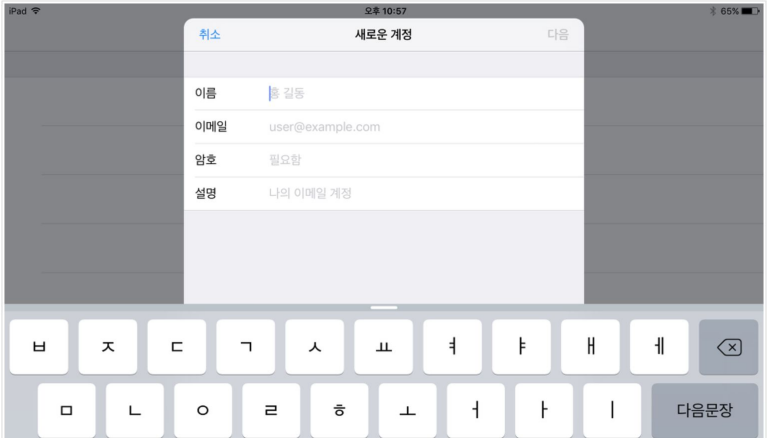
- master와 detail로 나눠지는 화면구성에서 detail 영역을 대치(replace)해서 화면형태
- 태블릿이 지원되는 Universal 앱 경우 show-detail 화면 많이 활용
- view스택에서는 영향이 없음



Segue - Present Modally

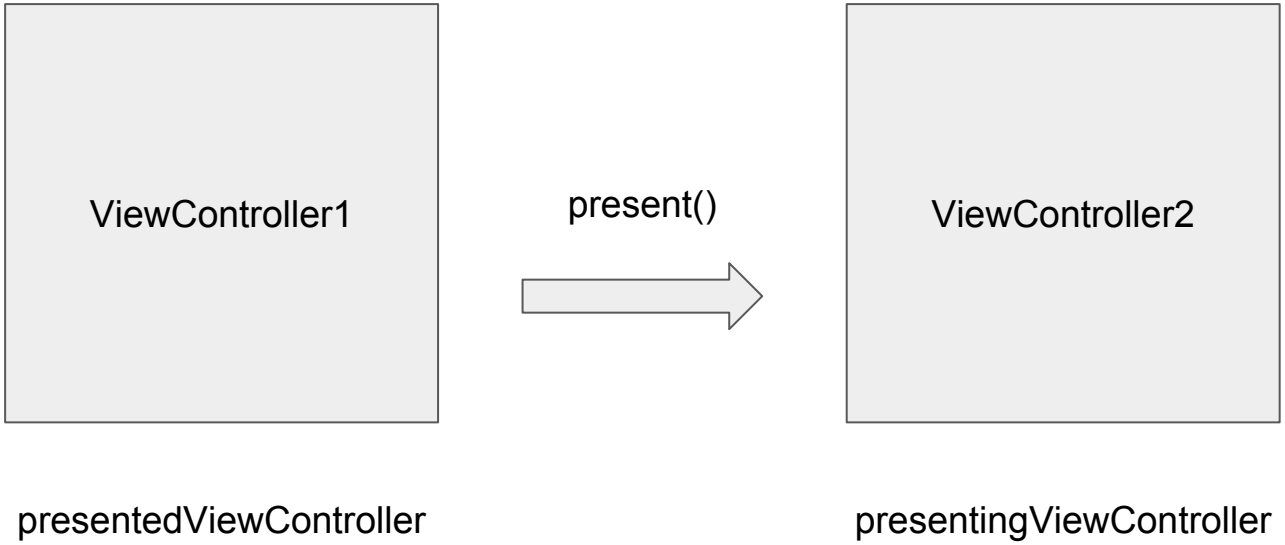
- 기존 화면을 덮으면서 위로 뜨는 화면형태
- ios 8부터 modal 대신 present modally 사용 (modal deprecated)





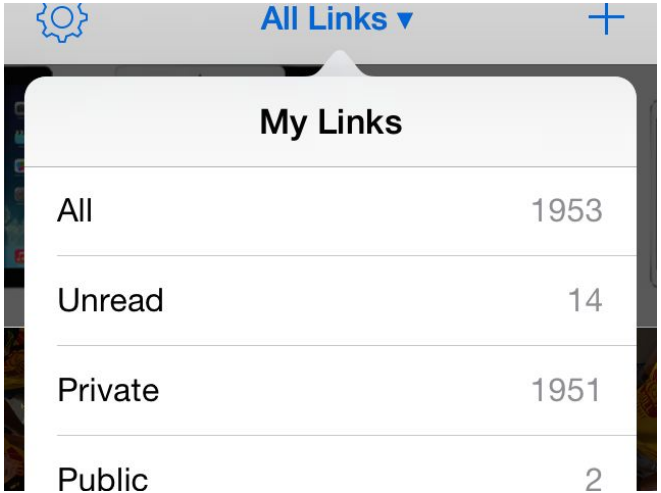
Segue - Present Modally

- presentingViewController (호출당한 ViewController)
- presentedViewController (호출한 주체)



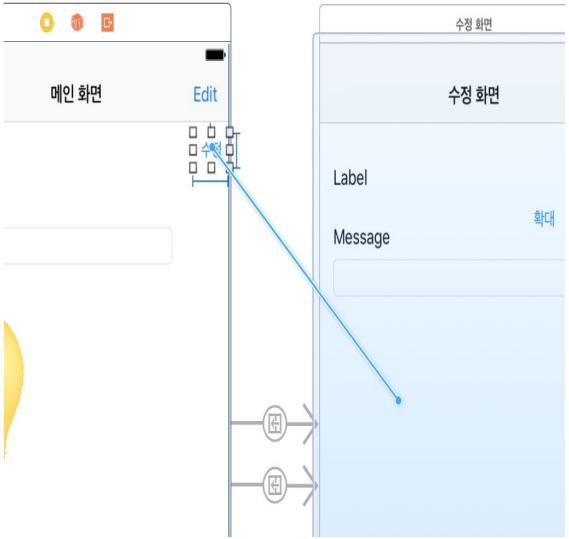
Segue - Present As Popover

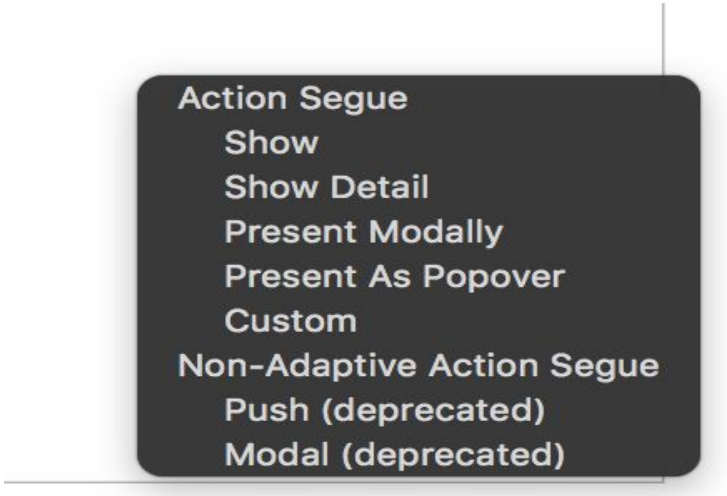
- 작은 팝업형태의 뷰 띄우는 화면형태
- 새로 띄운 뷰의 바깥영역을 터치하면 뷰 사라짐



Segue - 단순 방식

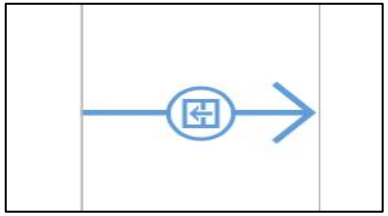
- UIControl를 상속받는 UI의 segue action 추가
- UIViewController 또는 UIControl를 상속받는 UI요소만 segue 설정가능

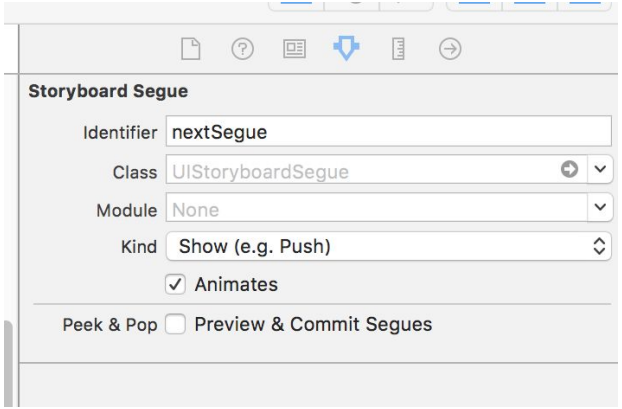




Segue - 제어방법

- segue에 identifier 설정 후 ViewController에서 segue 관련 code정의





func **performSegue**(**withIdentifier** identifier: String, sender: Any?) **//생성된 특정 segue**

func **prepare**(**for segue**: UIStoryboardSegue, sender: Any?) **//segue가 실행전에 초기화 또는 특정기능 설정**

UIViewController 자신.**performSegue**(withIdentifier: "세그 identifier id", sender: 이벤트대상) **//특정이벤트에서 segue 설정**

Segue - 제어방법

```
func prepare(for segue: UIStoryboardSegue, sender: Any?)    //segue가 실행전에 초기화 또는 특정기능 설정
```

ViewController.class

```
func prepare(for segue: UIStoryboardSegue, sender: Any?) {

    let editViewController = segue.destination as! EditViewController

    if segue.identifier == "nextSegue" {
        editViewController.textWayValue = "segue : use button"
    }
}
```

Segue - 프로그래밍 방식

- 이벤트 함수에 직접 불러온 ViewController 지정 후 화면전환 함수호출
- present / show / showDetailViewController 등 메소드로 화면전환
- popover는 present의 스타일 옵션을 통해 구현

```
@IBAction func segueSend(_ sender: UIButton) {
	let storyboard = UIStoryboard(name: "Main", bundle: nil)
	let view2 = storyboard.instantiateViewController(withIdentifier: "ViewController2") as! ViewController2
	present(view2, animated: true, completion: nil)  // present as modally  - segue action
}
```

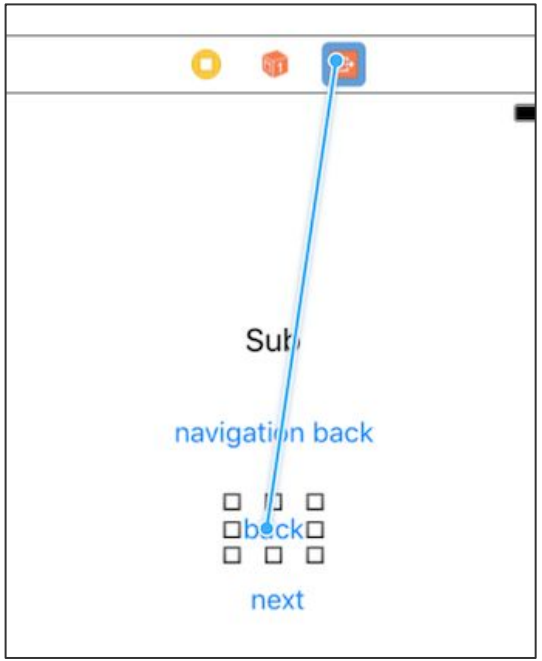
Segue - dismiss / unwind

- segue간의 연결고리가 되어 있어 dismiss()나 unwind기능으로 이전화면 전환
- UIViewController 에 dismiss()함수 내장
- navigationView를 상속받는 화면은 popViewController 사용

```
self.dismiss(animated: true, completion: nil)

self.presentingViewController?.dismiss(animated: true, completion: nil)

self.navigationController?.popViewController(animated: true)
```

Segue - dismiss / unwind

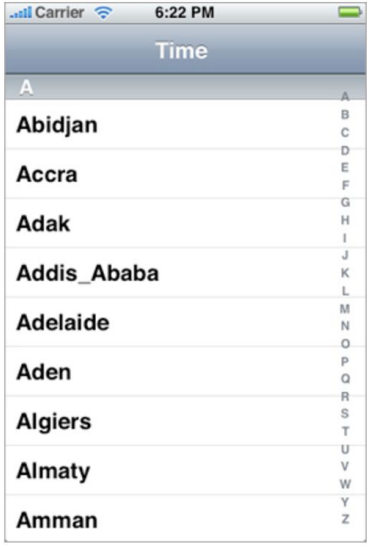
- 특정함수를 정의 후 exit 상단버튼에 unwind 바인딩
- 함수정의시 인자타입이 UIStoryboardSegue형 (segue == UIStoryboardSegue 타입)



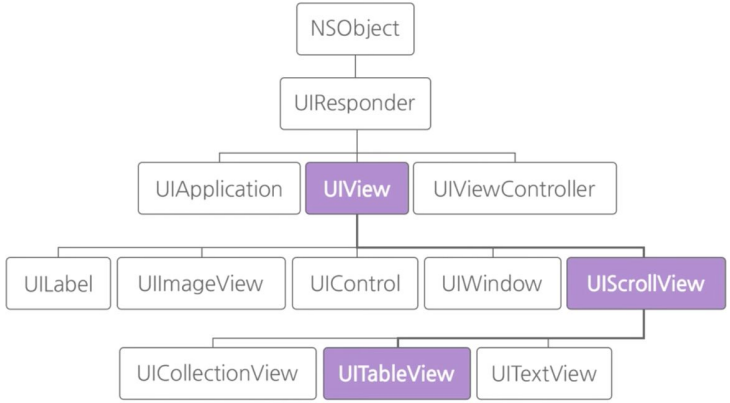

```
*/

@IBAction func backAction(_ sender: UIStoryboardSegue) {

}
```

UITableView

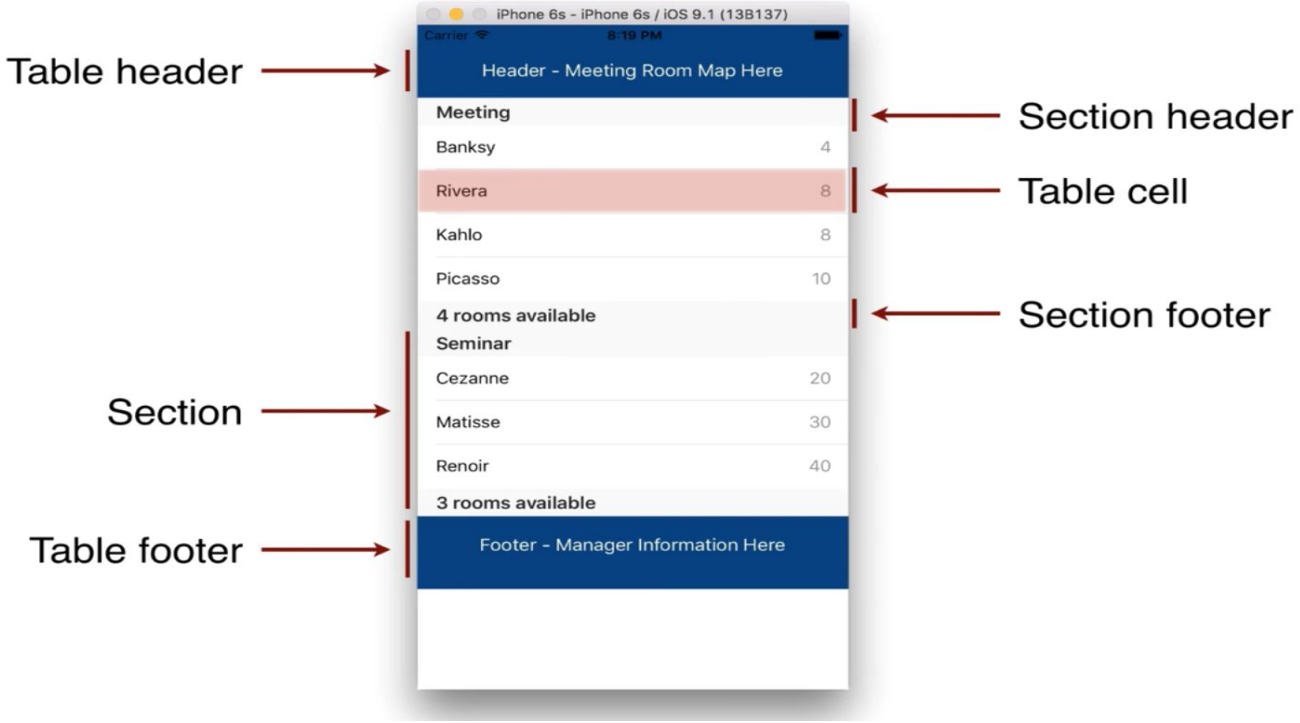
- 하나의 열을 갖는 목록 View (각 열은 UITableViewCell로 구성)
- UIScrollView 자식뷰



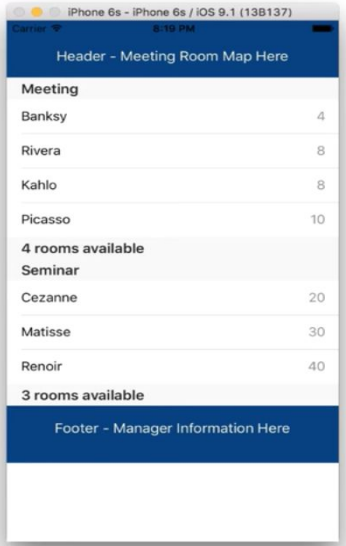
UIKit class hierarchy



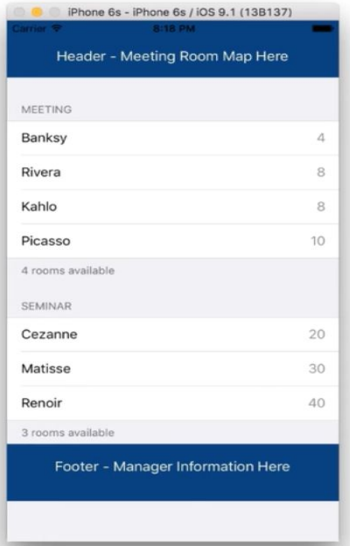
UITableView



UITableView



Plain Style



Grouped Style

UITableViewCell

Basic

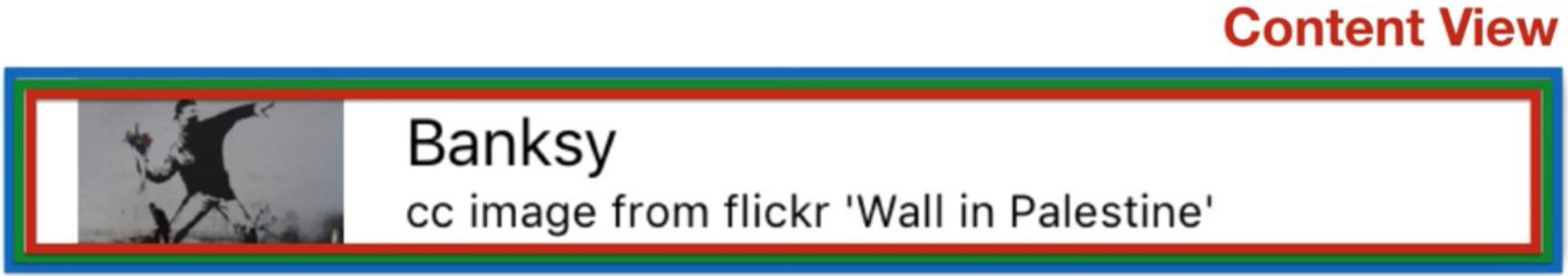
Subtitle

Right Detail

Left Detail

Custom

UITableViewCell



UITableViewCell

UITableViewDelegate

Modifying the Header and Footer of Sections

```
func tableView(UITableView, viewForHeaderInSection: Int)
```

Asks the delegate for a view object to display in the header of the specified section of the table view.

```
func tableView(UITableView, viewForFooterInSection: Int)
```

Asks the delegate for a view object to display in the footer of the specified section of the table view.

```
func tableView(UITableView, heightForHeaderInSection: Int)
```

Asks the delegate for the height to use for the header of a particular section.

```
func tableView(UITableView, estimatedHeightForHeaderInSection: Int)
```

Asks the delegate for the estimated height of the header of a particular section.

```
func tableView(UITableView, heightForFooterInSection: Int)
```

Asks the delegate for the height to use for the footer of a particular section.

```
func tableView(UITableView, estimatedHeightForFooterInSection: Int)
```

Asks the delegate for the estimated height of the footer of a particular section.

```
func tableView(UITableView, willDisplayHeaderView: UIView, forSection:
Int)
```

Tells the delegate that a header view is about to be displayed for the specified section.

```
func tableView(UITableView, willDisplayFooterView: UIView, forSection:
Int)
```

Tells the delegate that a footer view is about to be displayed for the specified section.

UITableViewDelegate

Editing Table Rows

```
func tableView(UITableView, willBeginEditingRowAt: IndexPath)
```

Tells the delegate that the table view is about to go into editing mode.

```
func tableView(UITableView, didEndEditingRowAt: IndexPath?)
```

Tells the delegate that the table view has left editing mode.

```
func tableView(UITableView, editingStyleForRowAt: IndexPath)
```

Asks the delegate for the editing style of a row at a particular location in a table view.

```
func tableView(UITableView, titleForDeleteConfirmationButtonForRowAt:
IndexPath)
```

Changes the default title of the delete-confirmation button.

```
func tableView(UITableView, shouldIndentWhileEditingRowAt: IndexPath)
```

Asks the delegate whether the background of the specified row should be indented while the table view is in editing mode.

UITableViewDatasource

Configuring a Table View

```
func tableView(UITableView, cellForRowAt: IndexPath)
```

Required. Asks the data source for a cell to insert in a particular location of the table view.

```
func numberOfSections(in: UITableView)
```

Asks the data source to return the number of sections in the table view.

```
func tableView(UITableView, numberOfRowsInSection: Int)
```

Required. Tells the data source to return the number of rows in a given section of a table view.

```
func sectionIndexTitles(for: UITableView)
```

Asks the data source to return the titles for the sections for a table view.

```
func tableView(UITableView, sectionForSectionIndexTitle: String, at: I
nt)
```

Asks the data source to return the index of the section having the given title and section title index.

```
func tableView(UITableView, titleForHeaderInSection: Int)
```

Asks the data source for the title of the header of the specified section of the table view.

```
func tableView(UITableView, titleForFooterInSection: Int)
```

Asks the data source for the title of the footer of the specified section of the table view.

UITableViewDatasource

Inserting or Deleting Table Rows

```
func tableView(UITableView, commit: UITableViewCellEditingStyle, forRowAt: IndexPath)
```

Asks the data source to commit the insertion or deletion of a specified row in the receiver.

```
func tableView(UITableView, canEditRowAt: IndexPath)
```

Asks the data source to verify that the given row is editable.

Reordering Table Rows

```
func tableView(UITableView, canMoveRowAt: IndexPath)
```

Asks the data source whether a given row can be moved to another location in the table view.

```
func tableView(UITableView, moveRowAt: IndexPath, to: IndexPath)
```

Tells the data source to move a row at a specific location in the table view to another location.

UITableViewCell

Creating Table View Cells

```
func register(UINib?, forCellReuseIdentifier: String)
```

Registers a nib object containing a cell with the table view under a specified identifier.

```
func register(AnyClass?, forCellReuseIdentifier: String)
```

Registers a class for use in creating new table cells.

```
func dequeueReusableCell(withIdentifier: String, for: IndexPath)
```

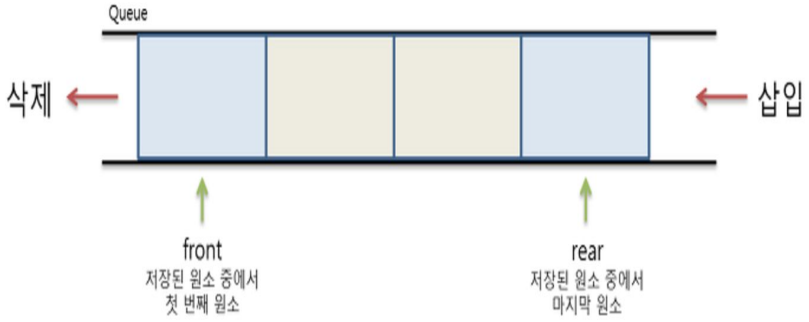
Returns a reusable table-view cell object for the specified reuse identifier and adds it to the table.

```
func dequeueReusableCell(withIdentifier: String)
```

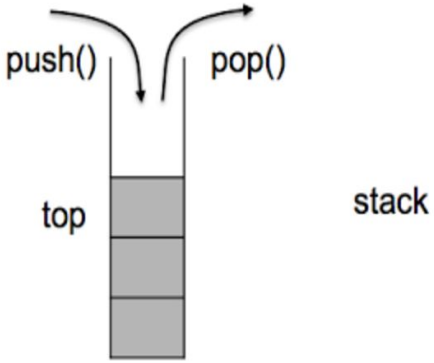
Returns a reusable table-view cell object located by its identifier.

Dequeue (큐+스택)

Dequeue (큐+스택)

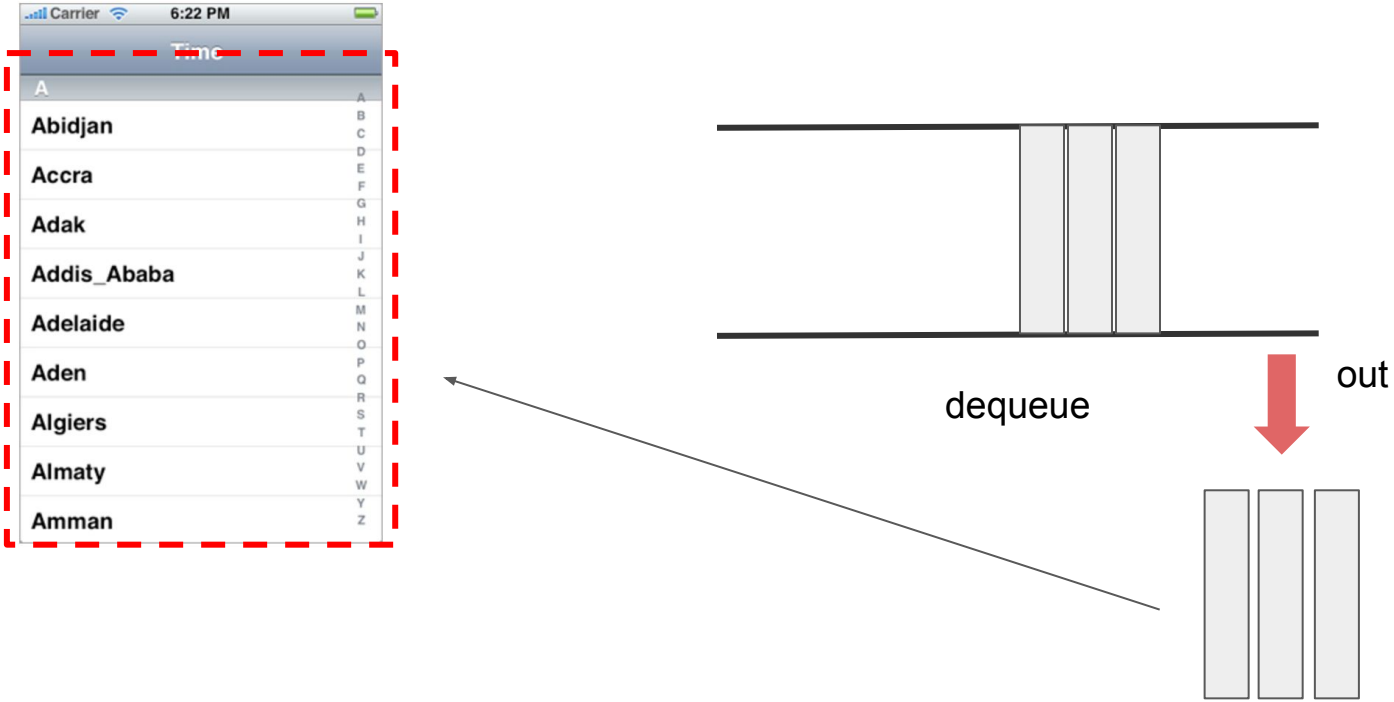


선입선출

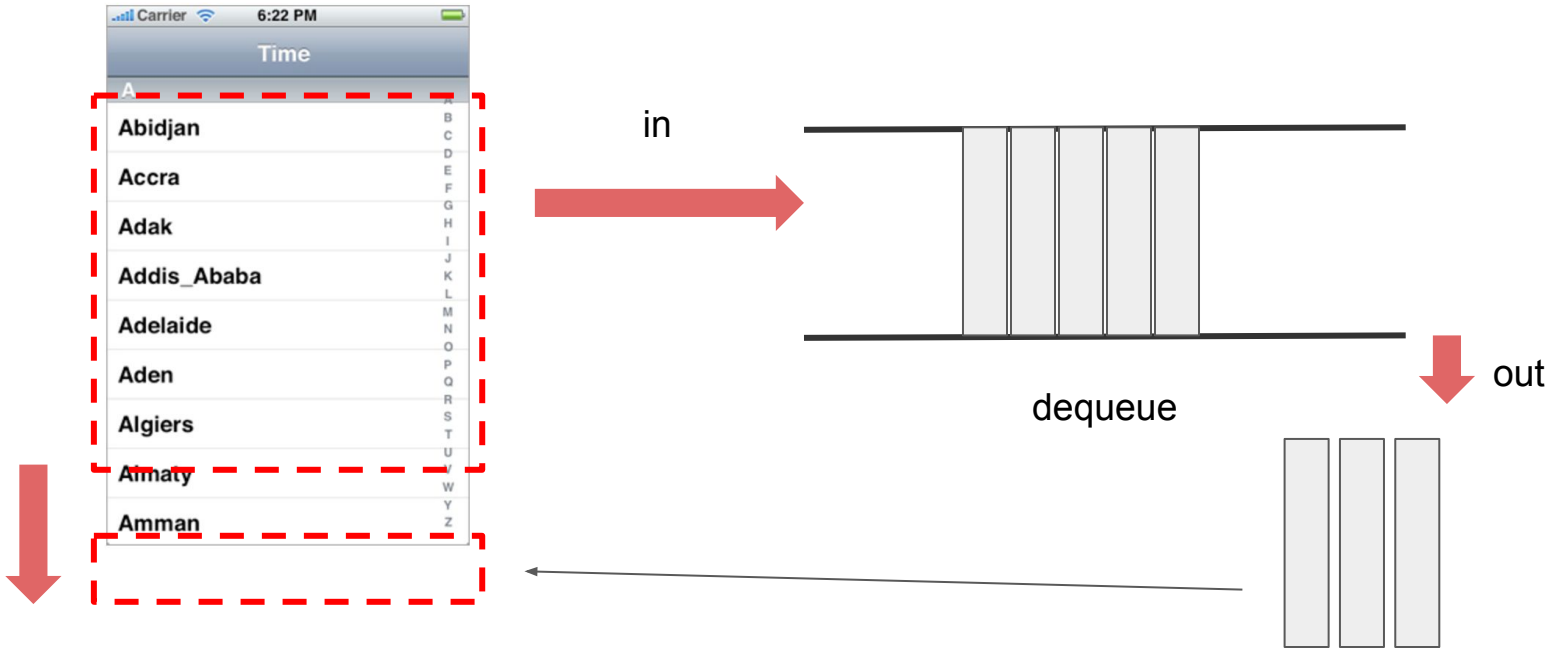


선입후출

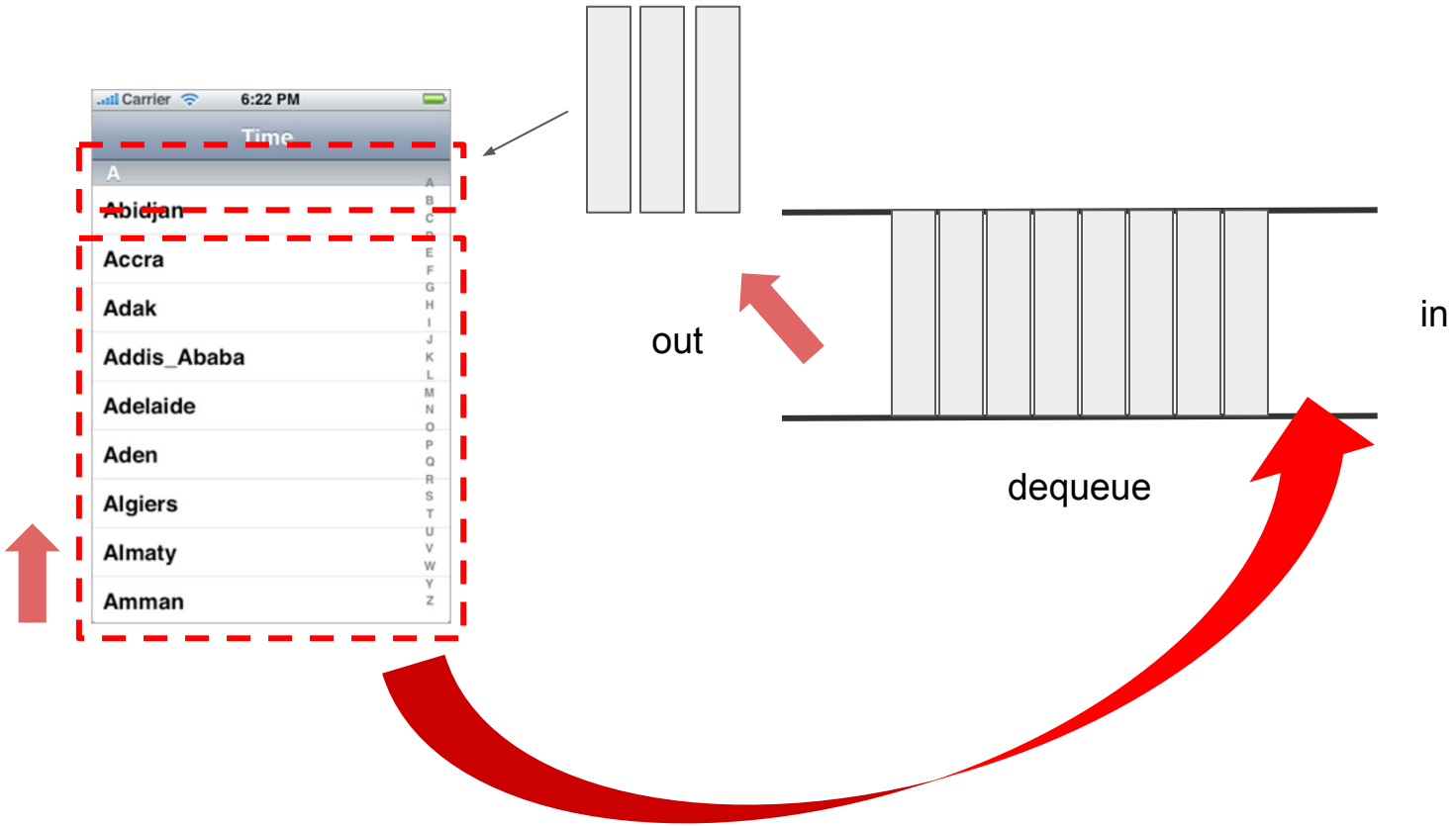
DequeueReusableCell



DequeueReusableCell

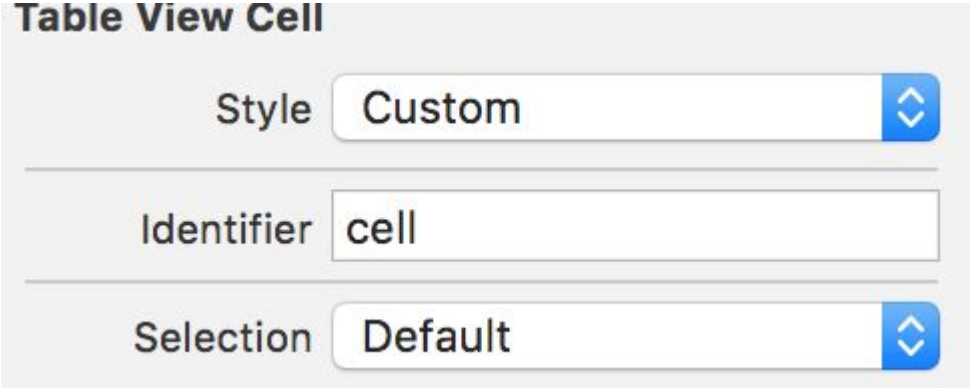


DequeueReusableCell



DequeueReusableCell

```
func tableView(_ tableView: UITableView, cellForRowAt indexPath: IndexPath) -> UITableViewCell
```




```
tableView.dequeueReusableCell(withIdentifier: "cell", for: indexPath)
```