

Swift Study 05



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Swift UIWebView & Framework

- Bundle 객체
- Mapkit / CoreLocation
- UIPageControl

Bundle 객체

- **object-c / swift**의 **foundation framework** 종류 중 하나
- 파일 자원 등이나 특정 번들 디렉토리 코드소스 접근 등을 활용하기 위한 용도
- **Bundle**의 **main**경우 현재 프로젝트 디렉토리에 대한 접근에 대한 **bundle** (현재 실행중인 코드가 포함 된 번들 디렉토리를 나타냄)

```
// Get the app's main bundle
```

```
let mainBundle = Bundle.main
```

```
// Get the bundle containing the specified private class.
```

```
let myBundle = Bundle.init(for: NSStringFromClass("MyPrivateClass"))!
```

```
// 특정파일 (html)의 경로를 가져오는 경우
```

```
let filePath = mainBundle.path(forResource: "index", ofType: "html")
```

Bundle 객체

- 번들 객체는 디스크 리소스를 검색 할 때 특정 검색 패턴에 따름
- 글로벌 자원(즉, 언어 별 .lproj 디렉토리에 없는 리소스)가 먼저 반환 이어 지역 고유의 언어 별 리소스를 반환.
- 이 검색 패턴은 번들이 다음 순서로 리소스를 검색하는 것을 의미합니다.

1.글로벌 (비 현지화) 자원

2.지역 고유의 지역화 된 리소스 (사용자의 지역 설정에 따라)

3.언어 별 지역화 된 리소스 (사용자의 언어 설정에 따라)

4.개발 언어 자원 (번들 Info.plist 파일 **CFBundleDevelopmentRegion** 키로 지정)

Bundle 객체 - 생성 및 초기화

Creating and Initializing a Bundle

`init(for: AnyClass)`

Returns the `NSBundle` object with which the specified class is associated.

`init?(identifier: String)`

Returns the `NSBundle` instance that has the specified bundle identifier.

`init?(url: URL)`

Returns an `NSBundle` object initialized to correspond to the specified file URL.

`init?(path: String)`

Returns an `NSBundle` object initialized to correspond to the specified directory.

Bundle 객체 - nib파일

Loading Nib Files

```
func loadNibNamed(String, owner: Any?, options: [AnyHashable : Any]? = nil)
```

Unarchives the contents of a nib file located in the receiver's bundle.

```
func loadNibNamed(String, owner: Any?, topLevelObjects: AutoreleasingUnsafeMutablePointer<NSArray>?)
```

Loads a nib from the bundle with the specified file name and owner.

Bundle 객체 - file 리소스 검색

Finding Resource Files

```
func url(forResource: String?, withExtension: String?, subdirectory: String?)
```

Returns the file URL for the resource file identified by the specified name and extension and residing in a given bundle directory.

```
func url(forResource: String?, withExtension: String?)
```

Returns the file URL for the resource identified by the specified name and file extension.

```
func urls(forResourcesWithExtension: String?, subdirectory: String?)
```

Returns an array of file URLs for all resources identified by the specified file extension and located in the specified bundle subdirectory.

```
func url(forResource: String?, withExtension: String?, subdirectory: String?, localization: String?)
```

Returns the file URL for the resource identified by the specified name and file extension, located in the specified bundle subdirectory, and limited to global resources and those associated with the specified localization.

Bundle 객체 - file 리소스 검색

```
func path(forResource: String?, ofType: String?)
```

Returns the full pathname for the resource identified by the specified name and file extension.

```
func path(forResource: String?, ofType: String?, inDirectory: String?)
```

Returns the full pathname for the resource identified by the specified name and file extension and located in the specified bundle subdirectory.

```
func path(forResource: String?, ofType: String?, inDirectory: String?,  
forLocalization: String?)
```

Returns the full pathname for the resource identified by the specified name and file extension, located in the specified bundle subdirectory, and limited to global resources and those associated with the specified localization.

```
func paths(forResourcesOfType: String?, inDirectory: String?)
```

Returns an array containing the pathnames for all bundle resources having the specified filename extension and residing in the resource subdirectory.

```
func paths(forResourcesOfType: String?, inDirectory: String?, forLocalization: String?)
```

Returns an array containing the file for all bundle resources having the specified filename extension, residing in the specified resource subdirectory, and limited to global resources and those associated with the specified localization.

Bundle 객체 - 이미지 리소스 검색

Finding Image Resources

func `urlForResource`(String)

Returns the location of the specified image resource as an NSURL.

func `pathForResource`(String)

Returns the location of the specified image resource file.

func `image`(forResource: String)

Returns an UIImage instance associated with the specified name, which can be backed by multiple files representing different resolution versions of the image.

Bundle 객체 - 기타정보들

Finding Sound Resources

```
func path(forSoundResource: String)
Returns the location of the specified sound resource file.
```

Fetching Localized Strings

```
func localizedString(forKey: String, value: String?, table: String?)
Returns a localized version of the string designated by the specified key and residing in the specified table.
```

Fetching Context Help Resources

```
func contextHelp(forKey: String)
Returns the context-sensitive help for the specified key from the bundle's help file.
```

Getting the Standard Bundle Directories

```
var resourceURL: URL?
The file URL of the bundle's subdirectory containing resource files.
```

```
var executableURL: URL?
The file URL of the receiver's executable file.
```

```
var privateFrameworksURL: URL?
The file URL of the bundle's subdirectory containing private frameworks.
```

Mapkit

- 지도정보를 위한 **framework**
- 다양한 클래스 중 **MKMapView**를 이용하여 **MapView** 사용
- 기본클래스에서는 **UIKit**만 import되어있기 때문에 별도로 **import MapKit** 선언 필요

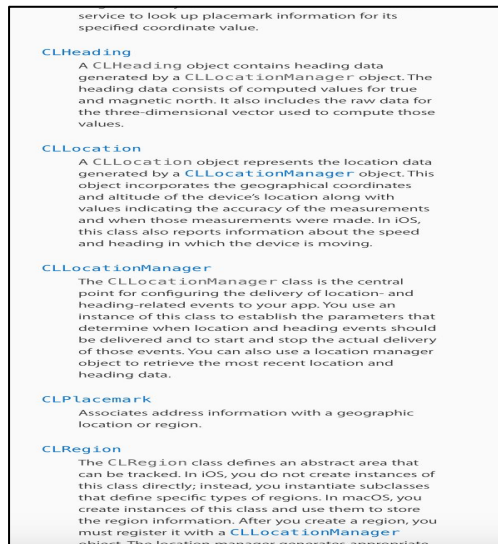
```
import Foundation
import MapKit.MKAnnotation
import MapKit.MKAnnotationView
import MapKit.MKCircle
import MapKit.MKCircleRenderer
import MapKit.MKCircleView
import MapKit.MKDirections
import MapKit.MKDirectionsRequest
import MapKit.MKDirectionsResponse
import MapKit.MKDirectionsTypes
import MapKit.MKDistanceFormatter
import MapKit.MKFoundation
import MapKit.MKGeodesicPolyline
import MapKit.MKGeometry
import MapKit.MKLocalSearch
import MapKit.MKLocalSearchCompleter
import MapKit.MKLocalSearchRequest
import MapKit.MKLocalSearchResponse
import MapKit.MKMapCamera
import MapKit.MKMapItem
import MapKit.MKMapSnapshot
import MapKit.MKMapSnapshotOptions
import MapKit.MKMapSnapshotter
import MapKit.MKMapView
import MapKit.MKMultiPoint
import MapKit.MKOverlay
import MapKit.MKOverlayPathRenderer
import MapKit.MKOverlayPathView
import MapKit.MKOverlayRenderer
import MapKit.MKOverlayView
import MapKit.MKPinAnnotationView
import MapKit.MKPlacemark
import MapKit.MKPointAnnotation
import MapKit.MKPolygon
import MapKit.MKPolygonRenderer
import MapKit.MKPolygonView
import MapKit.MKPolyline
import MapKit.MKPolylineRenderer
import MapKit.MKPolylineView
import MapKit.MKReverseGeocoder
import MapKit.MKTileOverlay
import MapKit.MKTileOverlayRenderer
import MapKit.MKTypes
import MapKit.MKUserLocation
import MapKit.MKUserTrackingBarButtonItem
import MapKit.NSUserActivity_MKMapItem
import MapKit
```

MKMapView

MKMapView

CoreLocation

- 장치의 현재 위도와 경도를 결정하여 위치 관련 이벤트의 전달을 설정 및 예약할 수 있는 프레임워크
- 기본적으로 **MapKit**에 내장 **import** 되어 있음
- 예제에서는 위치에 대한 측위정보를 **CoreLocation**의 하위class 중 **CLLocationManager**를 사용



CLLocationManager

CLLocationManager

- 위치 이벤트와 제목 이벤트를 전달하는시기를 결정하는 클래스
- 실제 위치정보에 대한 시작/중지 설정가능, 또한 최신의 위치와 주소정보를 검색 할 수 있음.

Initiating Standard Location Updates

```
func startUpdatingLocation()  
    Starts the generation of updates that report the user's current location.  
  
func stopUpdatingLocation()  
    Stops the generation of location updates.  
  
func requestLocation()  
    Request the one-time delivery of the user's current location.  
  
var pausesLocationUpdatesAutomatically: Bool  
    A Boolean value indicating whether the location manager object may pause location updates.  
  
var allowsBackgroundLocationUpdates: Bool  
    A Boolean value indicating whether the app wants to receive location updates when suspended.  
  
var distanceFilter: CLLocationDistance  
    The minimum distance (measured in meters) a device must move horizontally before an update event is generated.  
  
var desiredAccuracy: CLLocationAccuracy  
    The accuracy of the location data.  
  
var activityType: CLActivityType  
    The type of user activity associated with the location updates.
```

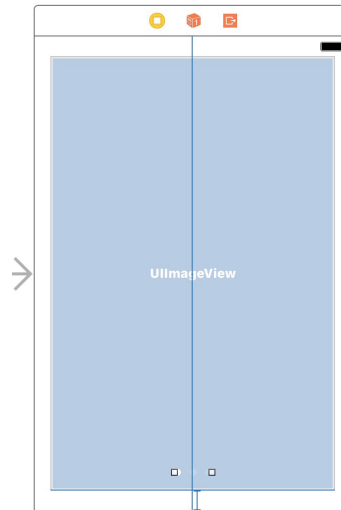
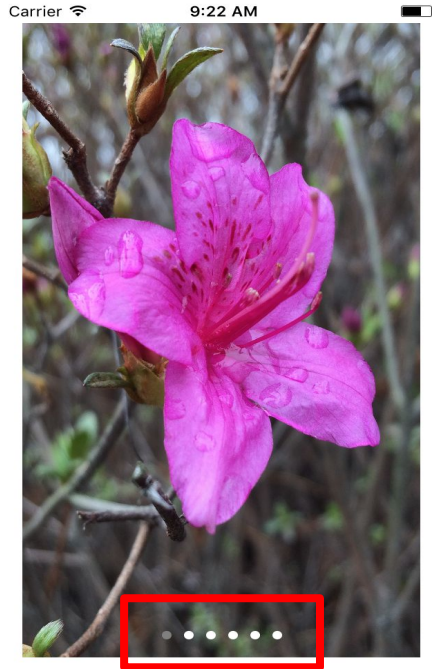
CLLocationManagerDelegate

- CLLocationManager의 이벤트별 delegate

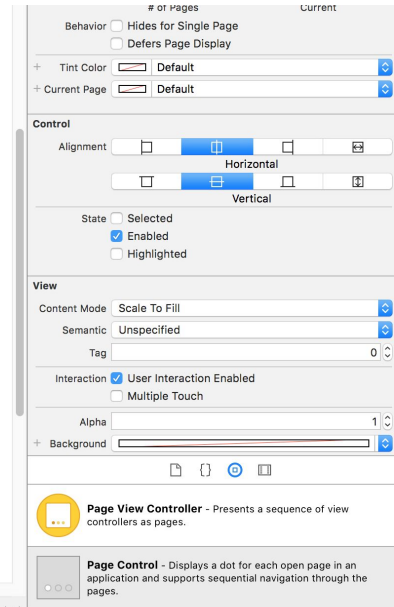
```
func locationManager(_ manager: CLLocationManager, didUpdateLocations locations: [CLLocation]) //위치정보 변경에 대한 이벤트
func locationManager(_ manager: CLLocationManager, didUpdateHeading newHeading: CLHeading)
func locationManagerShouldDisplayHeadingCalibration(_ manager: CLLocationManager) -> Bool
func locationManager(_ manager: CLLocationManager, didDetermineState state: CLRegionState, for region: CLRegion)
func locationManager(_ manager: CLLocationManager, didRangeBeacons beacons: [CLBeacon], in region: CLBeaconRegion)
func locationManager(_ manager: CLLocationManager, rangingBeaconsDidFailFor region: CLBeaconRegion, withError error: Error)
func locationManager(_ manager: CLLocationManager, didEnterRegion region: CLRegion)
func locationManager(_ manager: CLLocationManager, didExitRegion region: CLRegion)
func locationManager(_ manager: CLLocationManager, didFailWithError error: Error)
func locationManager(_ manager: CLLocationManager, monitoringDidFailFor region: CLRegion?, withError error: Error)
func locationManager(_ manager: CLLocationManager, didChangeAuthorization status: CLAuthorizationStatus)
func locationManager(_ manager: CLLocationManager, didStartMonitoringFor region: CLRegion)
func locationManagerDidPauseLocationUpdates(_ manager: CLLocationManager)
func locationManagerDidResumeLocationUpdates(_ manager: CLLocationManager)
func locationManager(_ manager: CLLocationManager, didFinishDeferredUpdatesWithError error: Error?)
func locationManager(_ manager: CLLocationManager, didVisit visit: CLVisit)
```

UIPageControl

- UIControl의 자식 UIPageControl (최상위 class UIView)
- 변화에 대한 pageControl 지정



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UIPageControl

Managing the Page Navigation

var `currentPage`: Int

The current page, shown by the receiver as a white dot.

var `numberOfPages`: Int

The number of pages the receiver shows (as dots).

var `hidesForSinglePage`: Bool

A Boolean value that controls whether the page control is hidden when there is only one page.

UIPageControl

Updating the Page Display

var `pageIndicatorTintColor`: UIColor?

The tint color to be used for the page indicator.

var `currentPageIndicatorTintColor`: UIColor?

The tint color to be used for the current page indicator.

var `defersCurrentPageDisplay`: Bool

A Boolean value that controls when the current page is displayed.

func `updateCurrentPageDisplay()`

Updates the page indicator to the current page.

Resizing the Control

func `size(forNumberOfPages: Int)`

Returns the size the receiver's bounds should be to accommodate the given number of pages.