

CS5530

Mobile/Wireless Systems

More on Swift

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Overview

- Optional
- WiFi interface
- Location manager



Optionals

- Some variables (other than vars or constants) either have a value, or nil
- To define an optional
 - `var optionalFloat: Float?`
- Optional with forced unwrapping



WiFi interface

- `interfaces = CNCopySupportedInterfaces()`
 - Return all the available interfaces on your device (e.g., en0)
 - As an array
- `interfaceInfo = CNCopyCurrentNetworkInfo(interfaces)`

```
{  
    BSSID = "6c:f3:7f:ea:44:f1";  
    SSID = "UCCS-Wireless";  
    SSIDDATA = <55434353 2d576972 656c6573 73>;  
}
```



WiFi interface

- `ssid = interfaceInfo[kCNNetworkInfoKeySSID as String] as? String`
 - UCCS-Wireless
- `bssid = interfaceInfo[kCNNetworkInfoKeyBSSID as String] as? String`
 - 6c:f3:7f:ea:44:f1



Code example

```
func getSSID() -> String? {
    var ssid, bssid, info: String?
    if let interfaces = CNCopySupportedInterfaces() as NSArray? {
        for interface in interfaces {
            print(interfaces)
            if let interfaceInfo = CNCopyCurrentNetworkInfo(interface as! CFString) as NSDictionary? {
                print(interfaceInfo)
                ssid = interfaceInfo[kCENetworkInfoKeySSID as String] as? String
                bssid = interfaceInfo[kCENetworkInfoKeyBSSID as String] as? String
                info = ssid! + ": " + bssid!
                break
            }
        }
    }
    return info
}
```



iOS/Android devices

- 3 iPhones, 3 iPads
- 2 Android phones, 2 Android tabs
- Check out @Ali



Location Manager

- Core Location Framework
 - `var locationManager: CLLocationManager = CLLocationManager()`
- Location access permission
 - `locationManager.requestWhenInUseAuthorization()`
 - `locationManager.requestAlwaysAuthorization()`

