

iOS Application Development

A Quick Overview

Unil

HEC

dop i a b

Benoît Garbinato

distributed object programming lab

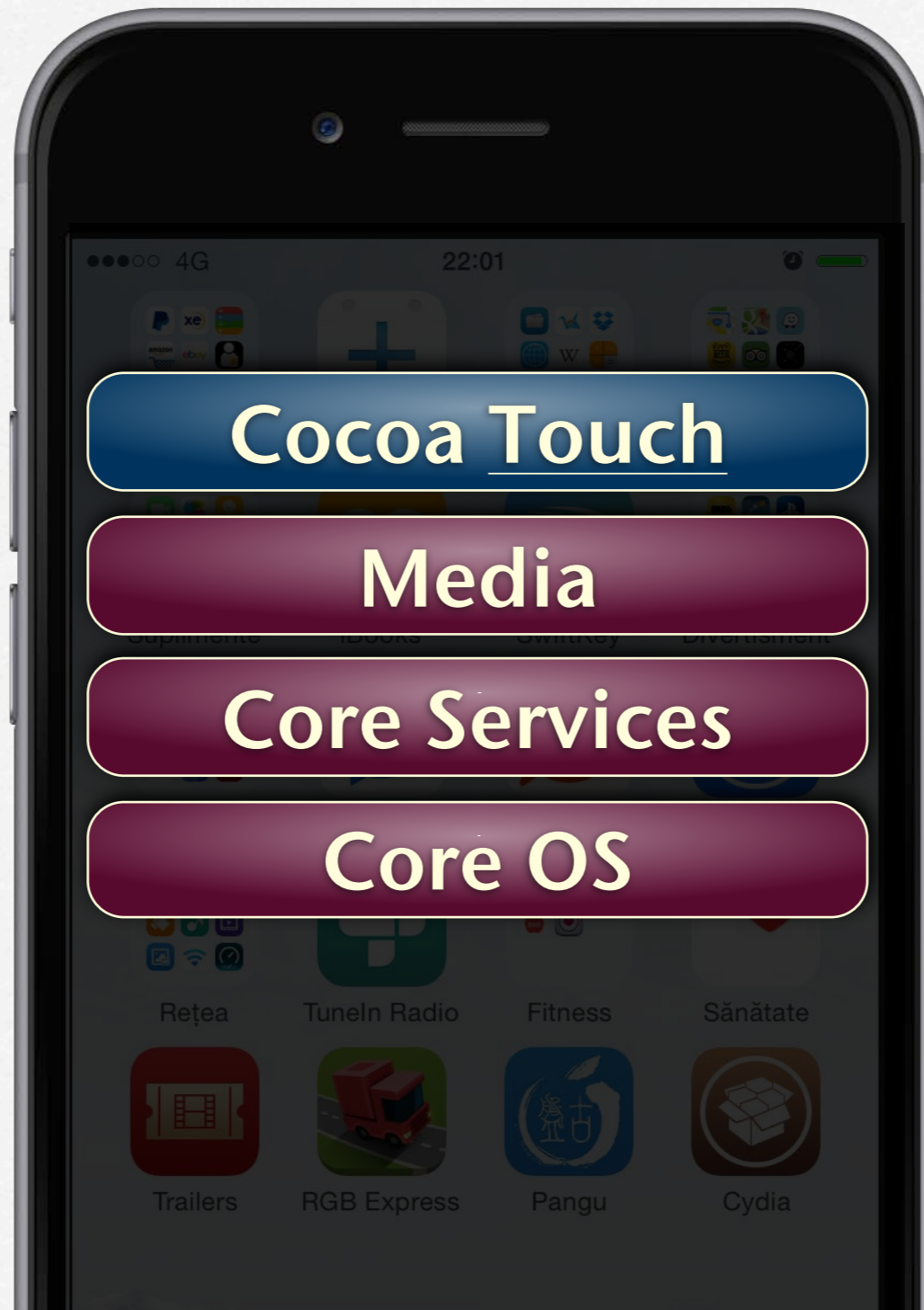
Roadmap

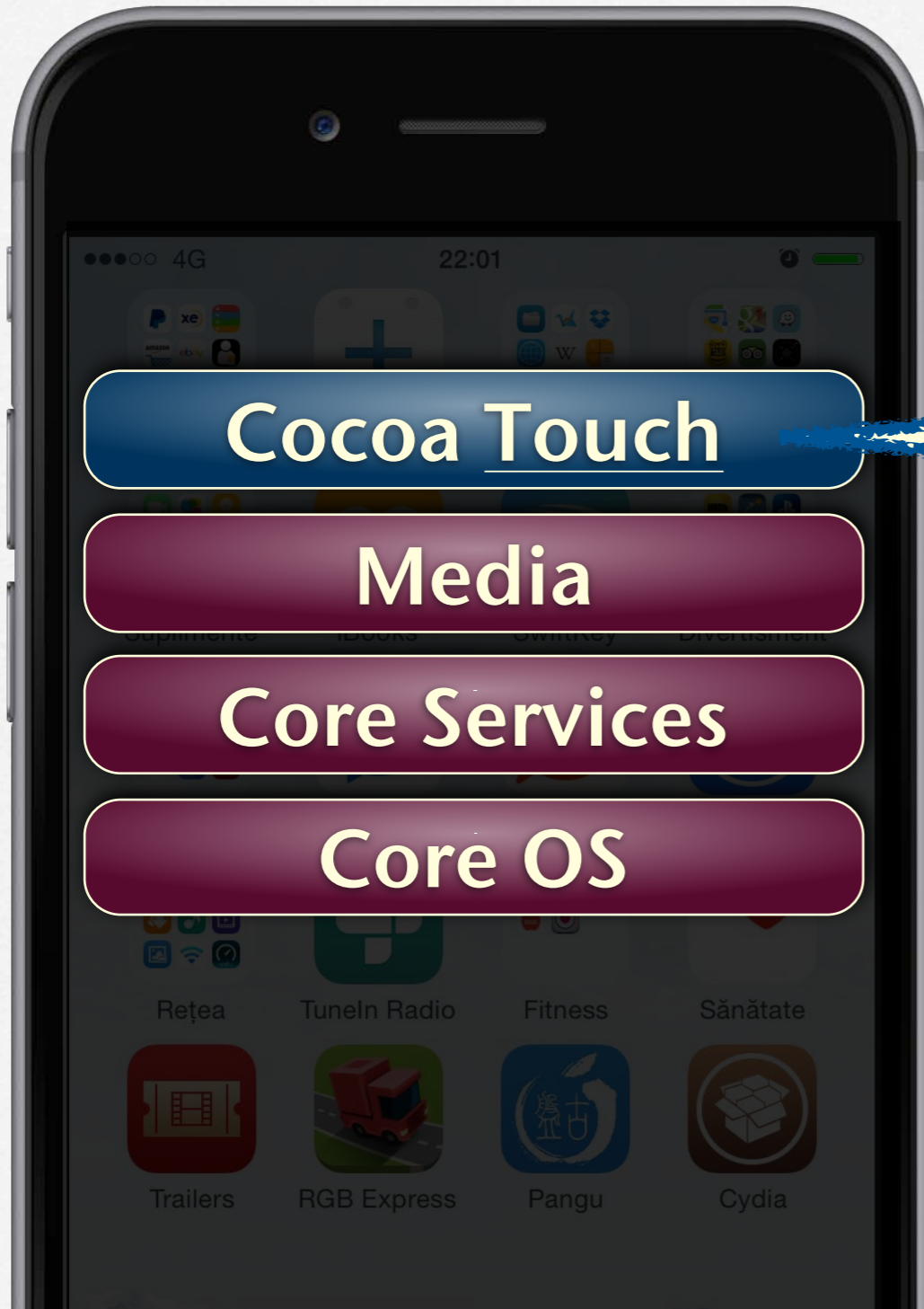
- The iOS platform overview
- Development process & tools
- Next steps...

From Mac OS X...



...to iOS





Cocoa Touch

Media

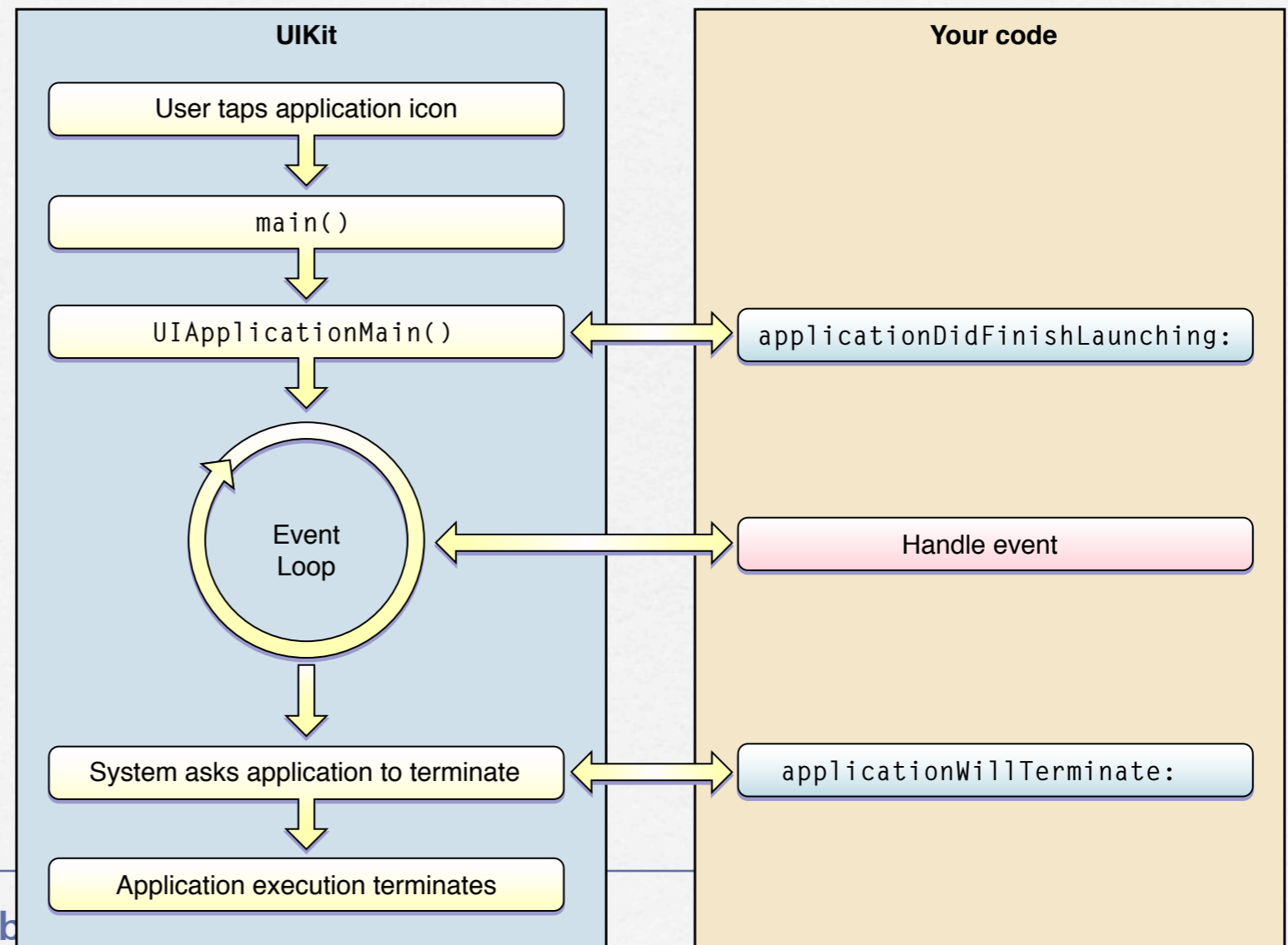
Core Services

Core OS

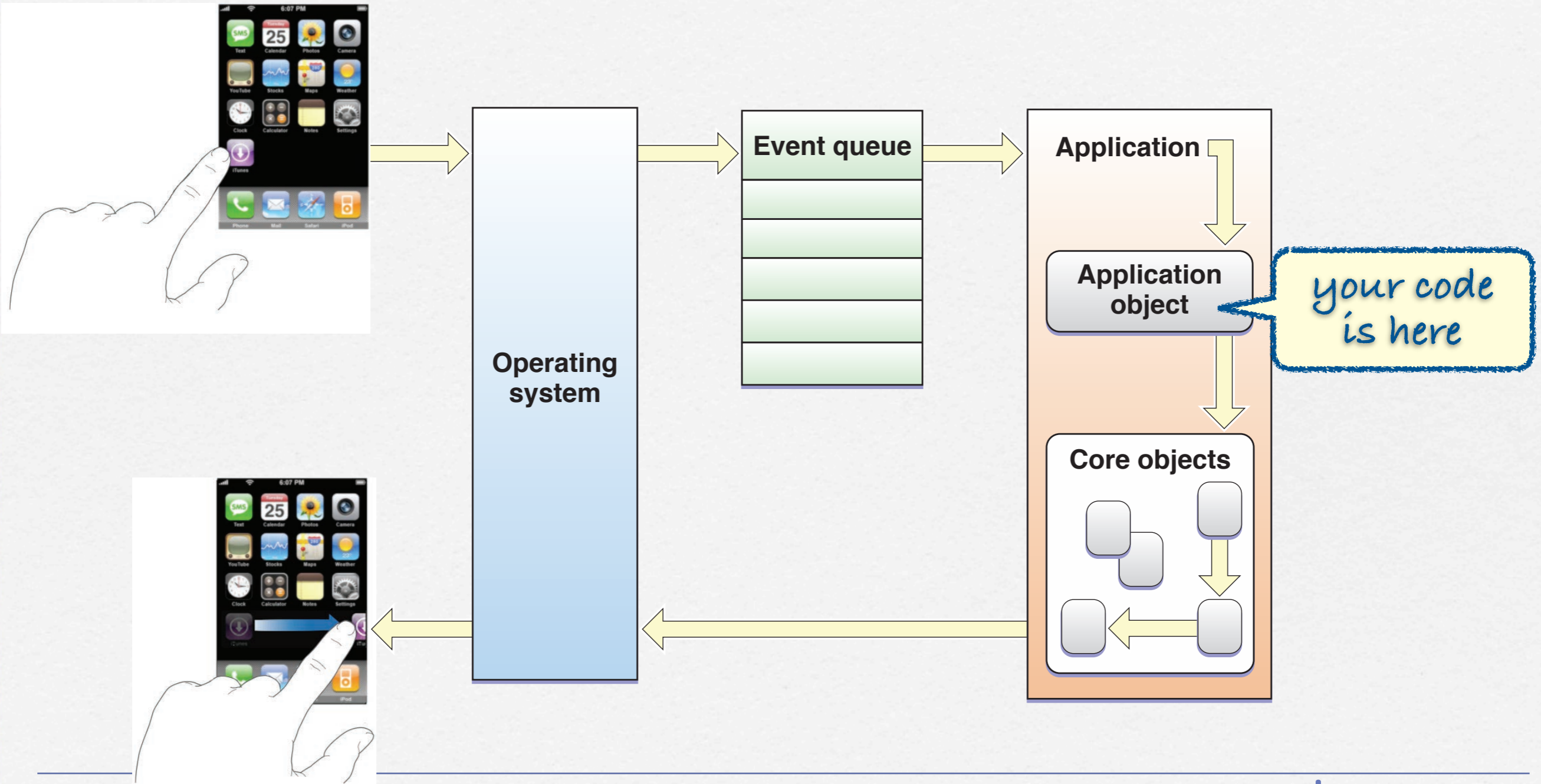
multi-touch events
multi-touch controls
view hierarchies
controllers
web views
image pickers
accelerometer
alerts
etc...

Application life cycle

- Each application runs in a sandbox
- Essentially a callback model, i.e., you have no control over the sequence of actions executed by application



Event & drawing cycle



Typical application template



```
import UIKit

@UIApplicationMain
class AppDelegate: UIResponder, UIApplicationDelegate {
    var window: UIWindow?

    func application(_ application: UIApplication, didFinishLaunchingWithOptions
                    launchOptions: [UIApplication.LaunchOptionsKey: Any]?) -> Bool {
        return true
    }

    func applicationWillResignActive(_ application: UIApplication) { ... }

    func applicationDidEnterBackground(_ application: UIApplication) { ... }

    func applicationWillEnterForeground(_ application: UIApplication) { ... }

    func applicationDidBecomeActive(_ application: UIApplication) { ... }

    func applicationWillTerminate(_ application: UIApplication) { ... }
}
```


Development tools



xcode for editing your source code, building user interfaces, compiling

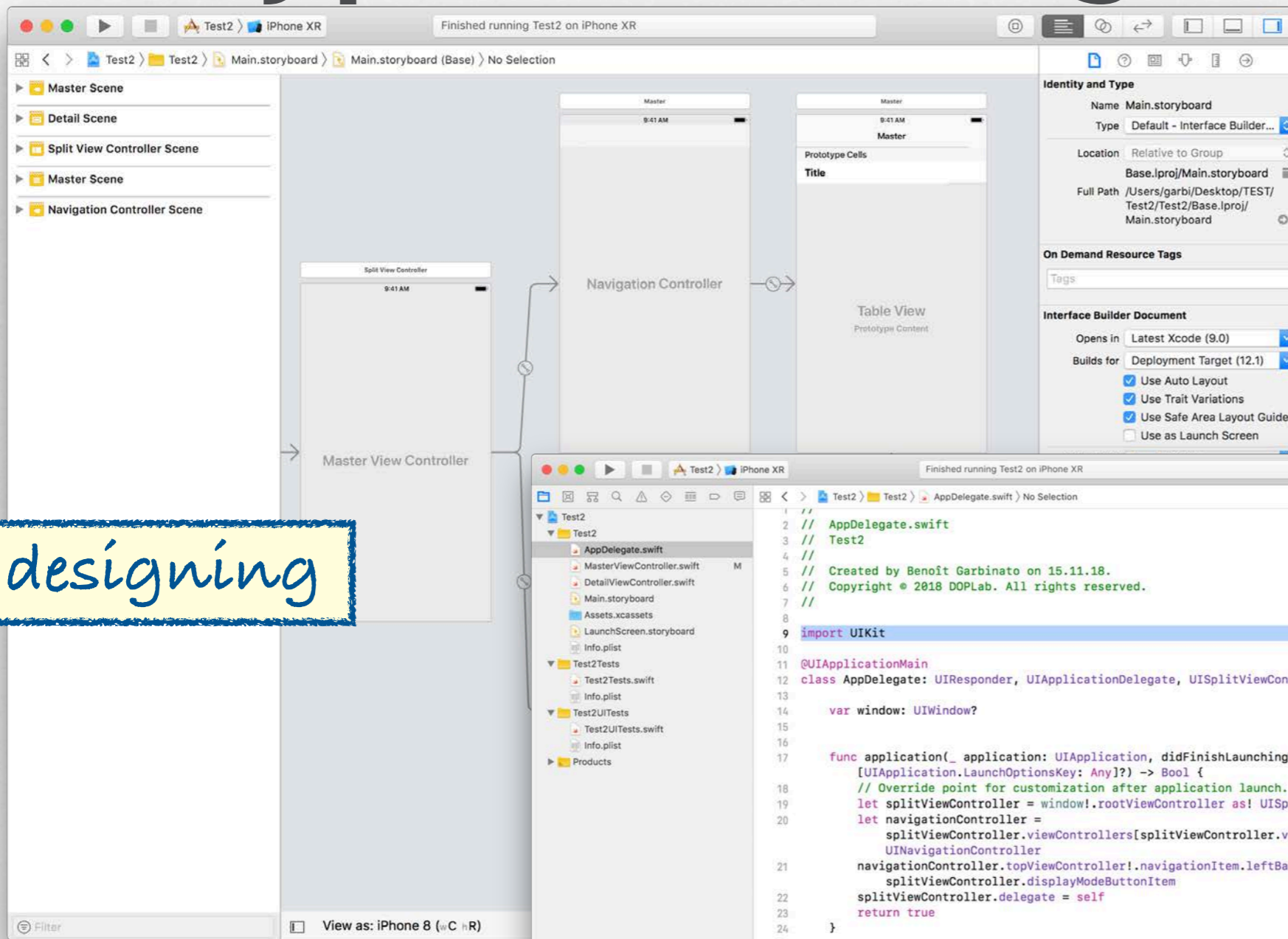


The iOS simulator for testing and debugging your application



You can also use your real iOS device but you need to be registered as Apple developer

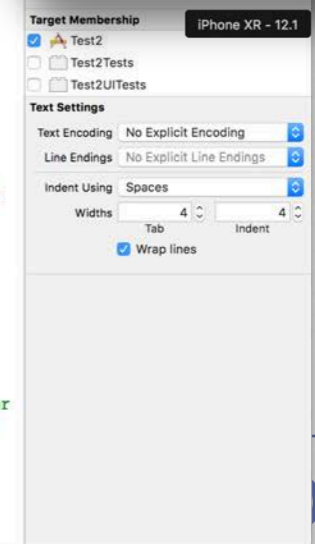
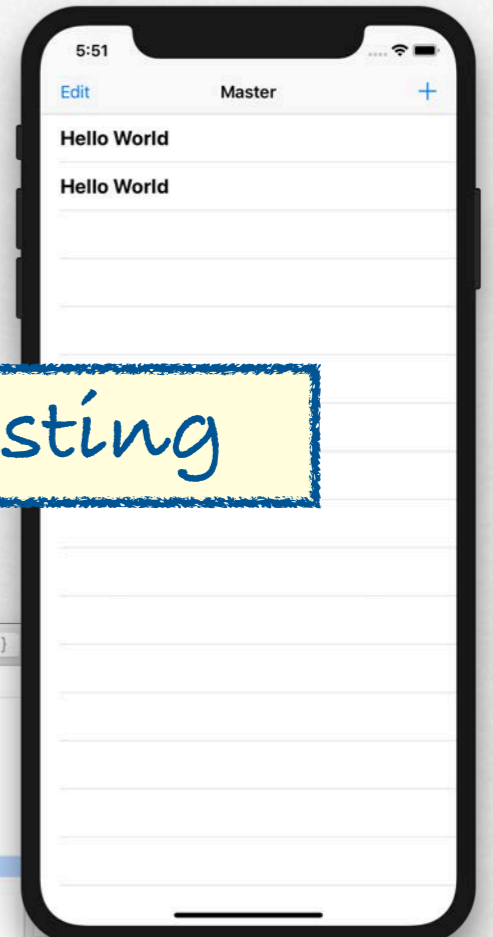
A typical working session



designing

coding

testing



Next steps...

- Get familiar with these tools
- Do the iOS app development tutorial