SESSION #1

WHAT WILL I LEARN IN THIS COURSE?

> MAIN GOAL IS DEVELOPING A REAL LIFE MOBILE APPLICATION

> SWIFT PROGRAMMING LANGUAGE

> IOS PLATFORM (UI, GRAPHICS, ANIMATION, NETWORKING, LOCATION, MEDIA, ...)

> DESIGN PATTERNS AND ARCHITECTURE OF MOBILE PROGRAMS

> DESIGNING USER INTERFACE/INTERACTION ON MOBILE DEVICES
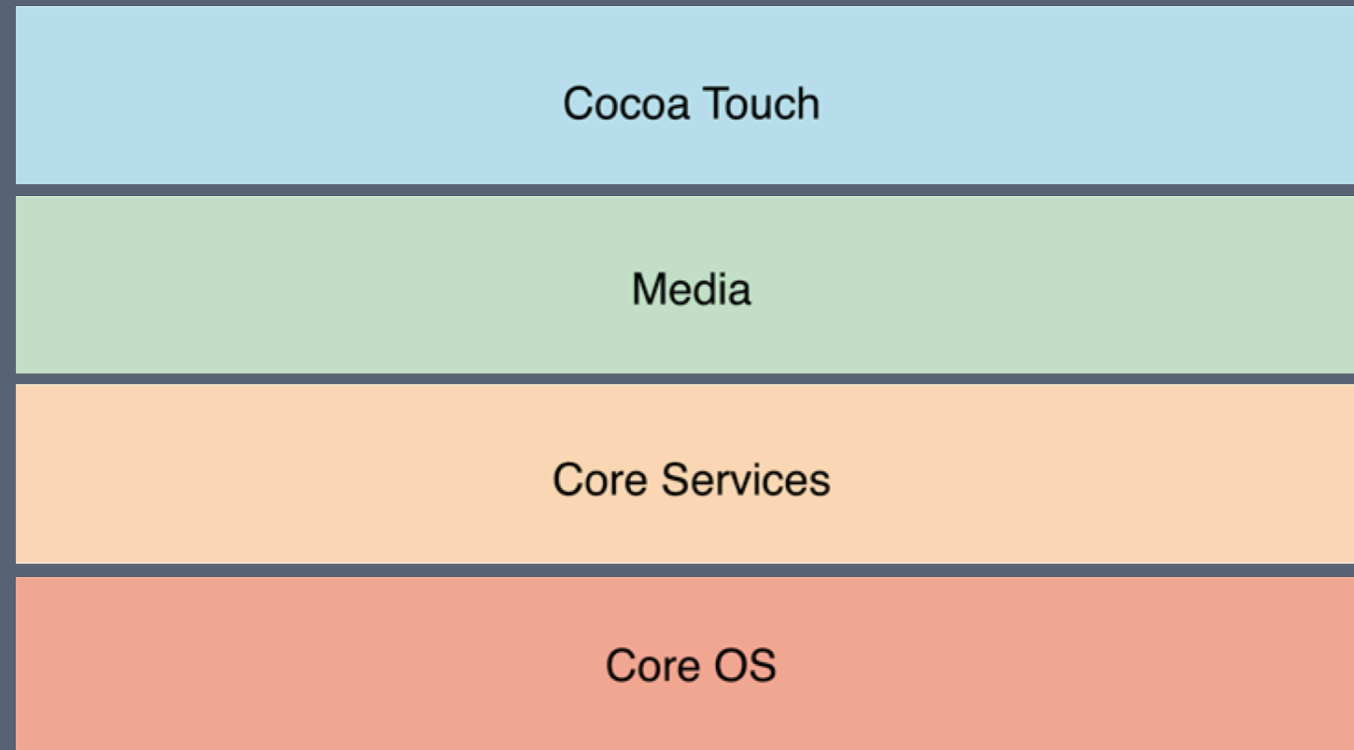
PREREQUISITES

> PROGRAMMING BASICS

> OBJECT ORIENTED PROGRAMMING

> BEING INTERESTED IN MOBILE DEVELOPMENT

> ACCESS TO A MAC AND AN IPHONE/IPAD

EVALUATION

> (49%) A REAL LIFE IOS APPLICATION AT THE END OF SEMESTER

> (41%) SOME SHORT CODING TASKS DURING THE SEMESTER

> (10%) FINAL EXAM

WHAT IS IOS
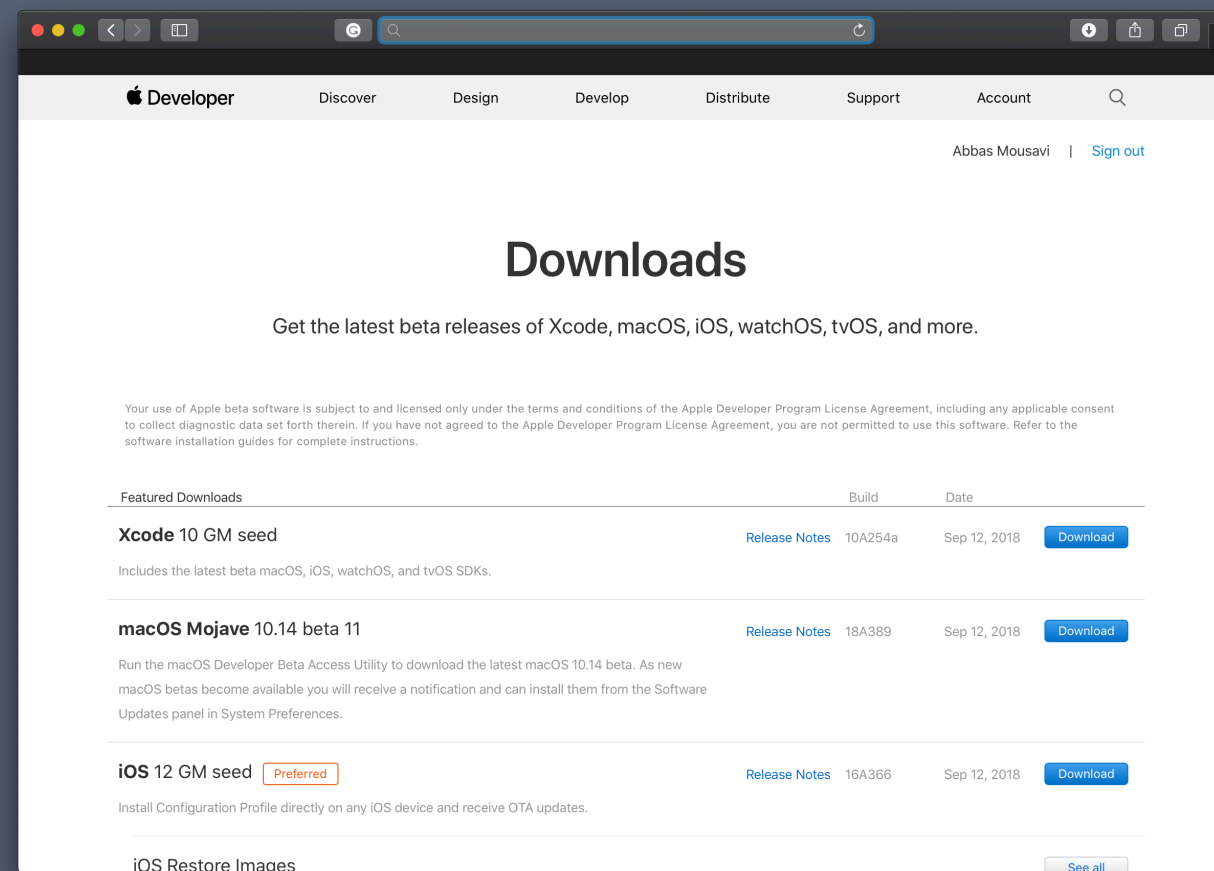
LAYERS OF IOS

Cocoa Touch

Media

Core Services

Core OS

> CORE OS: FREE BSD UNIX

> CORE SERVICES: ARC, GCD, SQLITE, ACCOUNTS, ADDRESS BOOK, NETWORK, CODE DATE, CORE FOUNDATION, CORE LOCATION, CORE MEDIA, CORE TELEPHONY, EVENT KIT,

> MEDIA: CORE GRAPHICS, CORE ANIMATION, METAL, MEDIA PLAYER, CORE AUDIO, CORE VIDEO

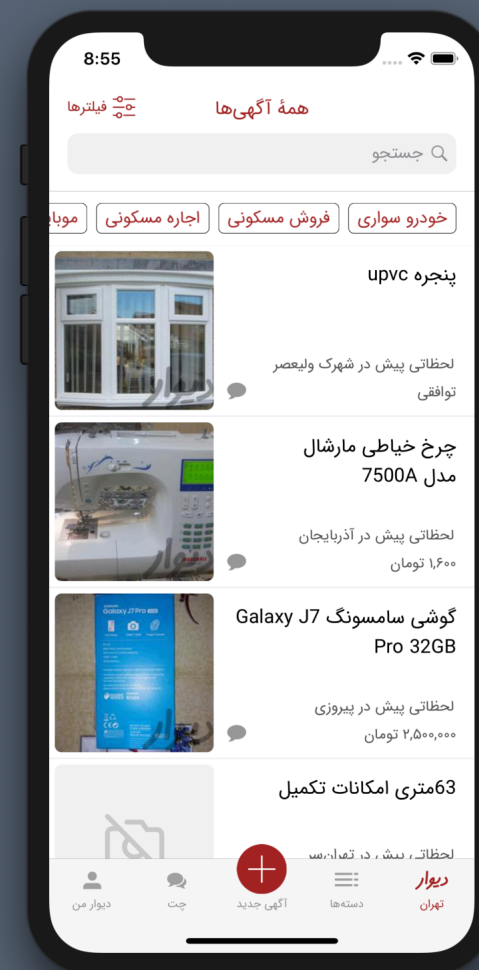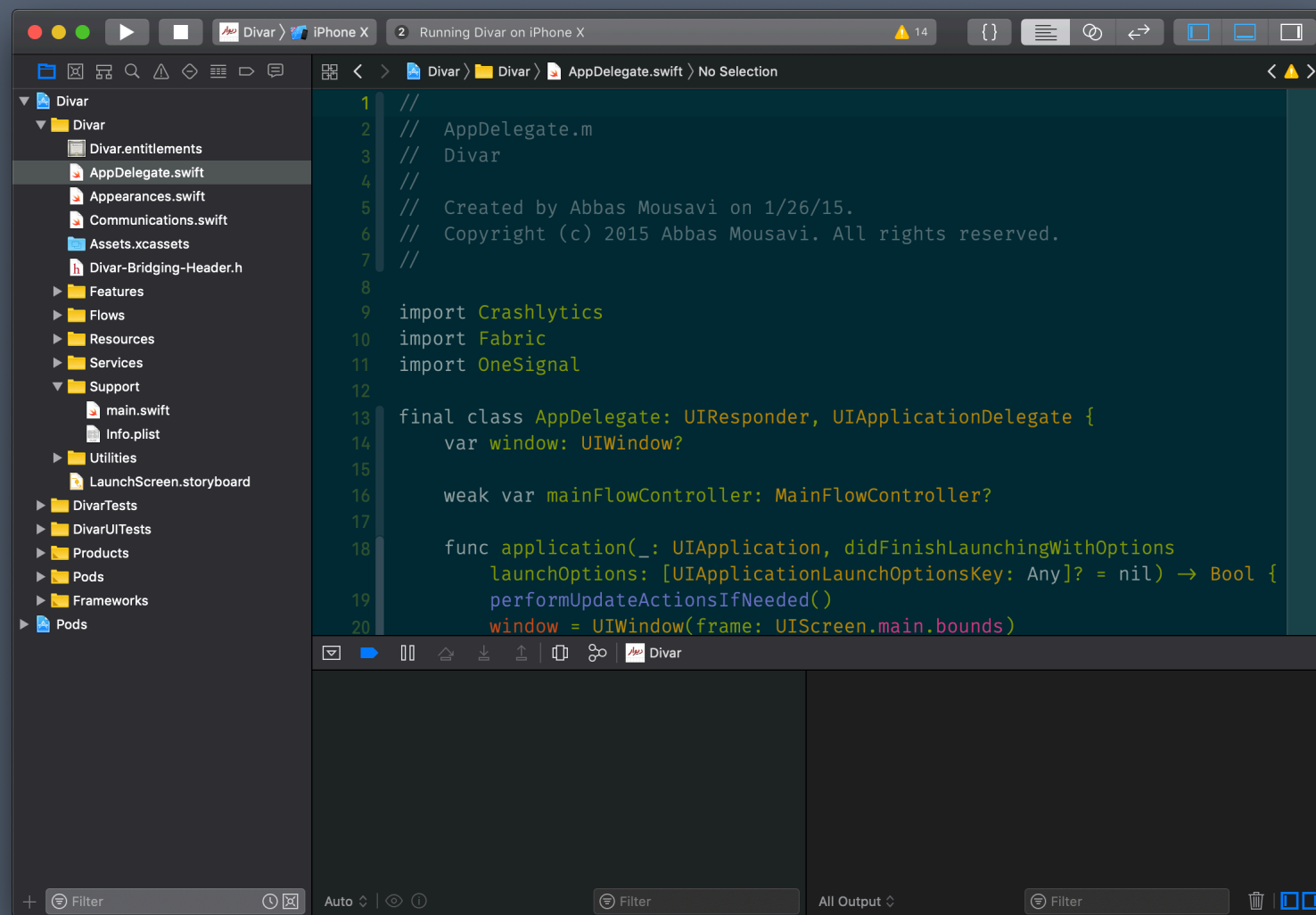> COCOA TOUCH: UIKIT, GAMEKIT, MAPKIT, MESSAGE UI, EVENT UI, ADDRESSBOOK UI

TOOLS

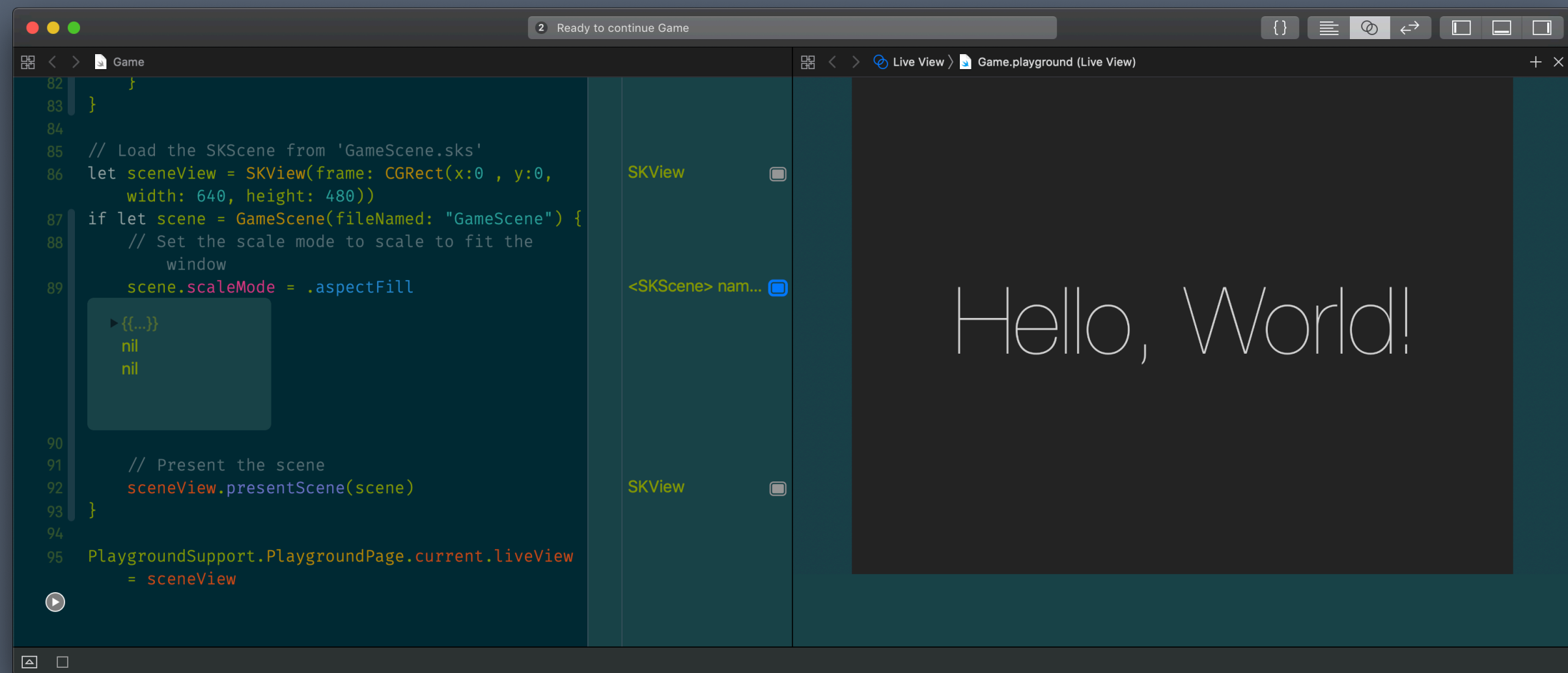# XCODE

https://developer.apple.com

XCODE

XCODE PLAYGROUND

```
82          }
83      }
84
85      // Load the SKScene from 'GameScene.sks'
86      let sceneView = SKView(frame: CGRect(x:0 , y:0,
            width: 640, height: 480))
87      if let scene = GameScene(fileNamed: "GameScene") {
88          // Set the scale mode to scale to fit the
                window
89          scene.scaleMode = .aspectFill

            ▶ {{...}}
            nil
            nil


90
91          // Present the scene
92          sceneView.presentScene(scene)
93      }
94
95      PlaygroundSupport.PlaygroundPage.current.liveView
            = sceneView
```

SKView

<SKScene> nam...

SKView

Live View > Game.playground (Live View)

Hello, World!

REPL, ON LINUX, BASH SCRIPT OR COMPILED

SOURCES

> THE SWIFT PROGRAMMING LANGUAGE:
https://docs.swift.org/swift-book/
> APPLE DEVELOPER DOCUMENTATION:
https://developer.apple.com/documentation/
> APP ARCHITECTURE BOOK

> HUMAN INTERFACE GUIDELINE:
https://developer.apple.com/design/human-interface-guidelines/