

# MOBILE DEVELOPMENT

# INTRO TO INTERFACE BUILDER AND STORYBOARDS

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# LEARNING OBJECTIVES

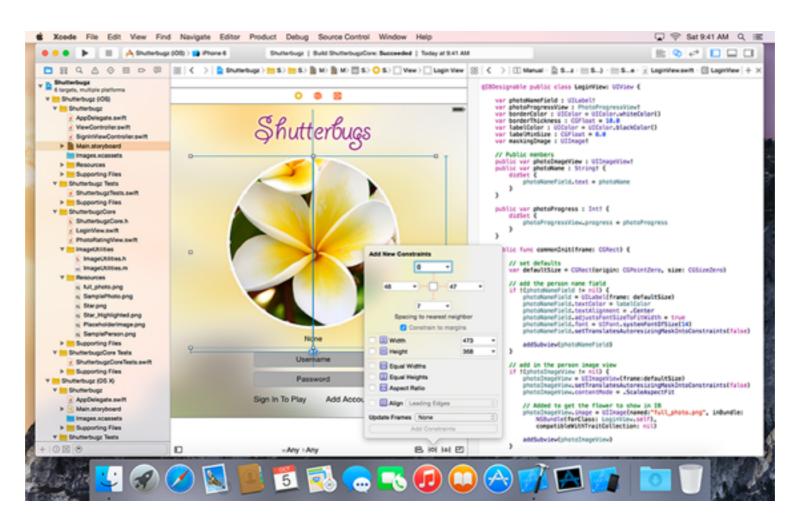
- GitHub and git cont'd
- Outline developer workflow and tools on a high level
- Create the first iOS project outlining the development process of an app
- Label Xcode workspace window
- Add multiple View Controllers to storyboard and link them together with segues
- Use Navigation Controller to link scenes

# DEV WORKFLOW

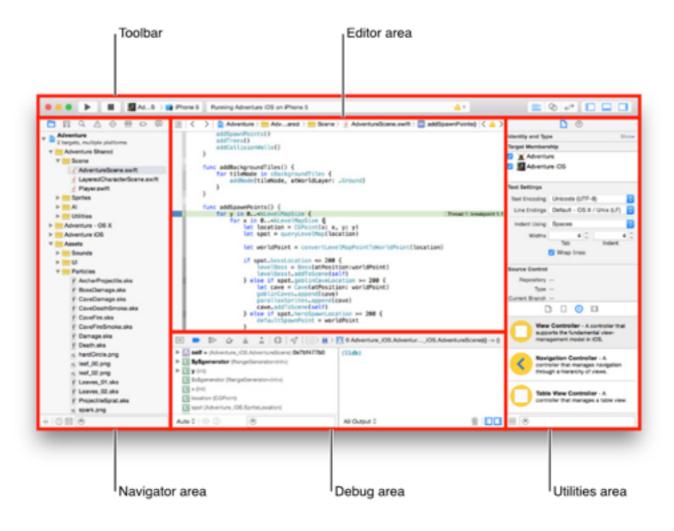
# WHAT IS COCOA TOUCH?



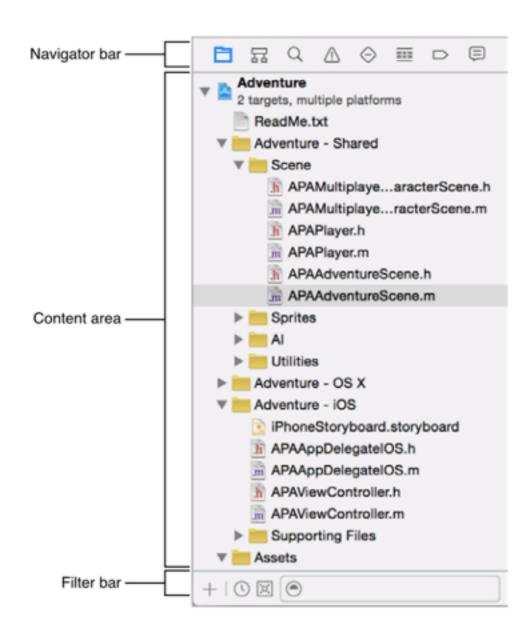
# WHAT IS XCODE?



# **NAVIGATING XCODE**



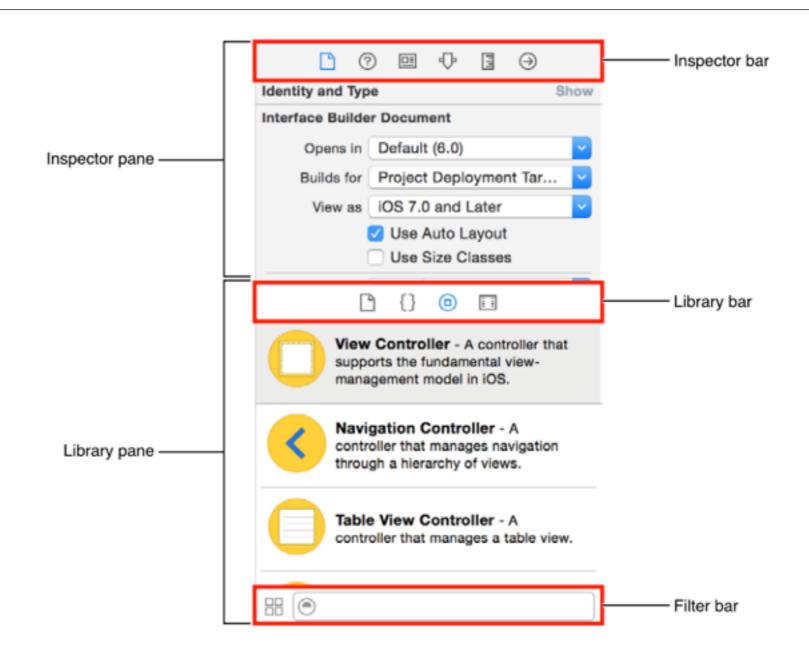
# NAVIGA' AREA



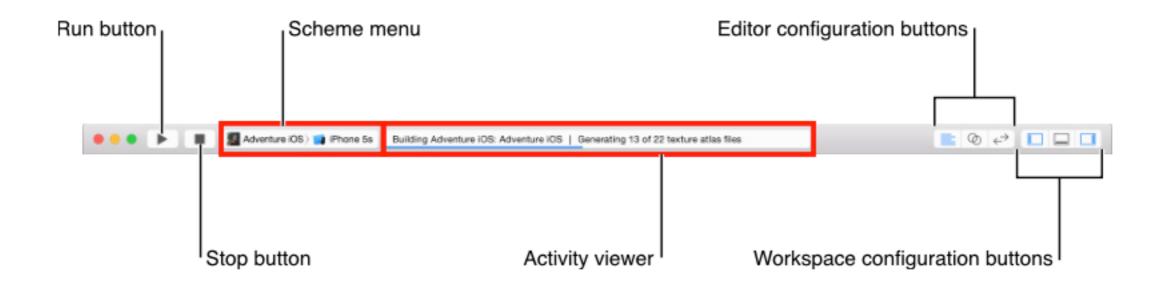
# JUMP BAR AND EDITOR PANES



# UTILITIES AREA



# **WORKSPACE TOOLBAR**



# **DEV WORKFLOW**

- Run Xcode
- Create new project
- Add user interface elements to project
- Change user interface element properties
- Discuss the different project templates

# TO THE PLAYGROUNDS!

#### **ACTIVITY**



#### KEY OBJECTIVE(S)

Learn the flow of building a new project. Add UI elements to a project and modify their properties.

#### **TIMING**

10 min 1. A volunteer who has travelled recently

5 min 2. Debrief

#### **DELIVERABLE**

A new project with a label displaying student bio and a button labeled "Goals".

# RUNNING YOUR APP

## **RUNNING YOUR APP**

- Run app on simulator
- Outline the steps for deploying an app to device

# **RUNNING APP ON SIMULATOR**

- Select iOS version in toolbar area
- Select "Build and then Run" in toolbar area (₩R)

#### Note

- iPad apps only run on iPad simulator
- iPhone and universal apps run on both iPad and iPhone simulators

# **NAVIGATING SIMULATOR**

- To run Simulator without running a project select Xcode -> Open Developer Tool -> iOS Simulator
- → To select the "Home" button on simulator press 第+☆+H

# **RUNNING APP ON DEVICE**

- Deploying an app to a device or publishing to the App Store requires participating in the developer program (\$99/year)
- Get UDID number (<a href="http://whatsmyudid.com/">http://whatsmyudid.com/</a>)
- Add device to Xcode (Windows->Devices)
- Create development certificate and provisioning profile

# **CLASS REVIEW**

- How often do students submit assessments?
- What is a typed language? Is Swift typed?
- What is the difference between a compiled and scripted language?
  Which one is Swift?
- How does layout sizing work?
- What are the requirements for deploying to device?

#### INTRO TO NIBS/STORYBOARD

# LEARNING OBJECTIVES

Define and implement nibs

Differentiate between storyboards and nibs

# STORYBOARD MULTIPLE SCENES

#### INTRO TO NIBS/STORYBOARD

## **STORYBOARDS**

- Link multiple scenes together
- Transition between scenes. These transitions are represented by segues

#### INTRO TO NIBS/STORYBOARD

# **XCODE DEMO: STORYBOARDS**

#### **ACTIVITY**



#### KEY OBJECTIVE(S)

Link multiple scenes together.

#### **TIMING**

15 min 1. A volunteer who has travelled recently

5 min 2. Debrief

#### **DELIVERABLE**

- Pair up and build an app with four scenes linking to each other in the form of book pages.
- Add UI Elements and appropriately link them to other slides.

#### INTRO TO NIBS/STORYBOARD

### STORYBOARDS RECAP

#### **PROS**

- Performance
- Simplify the prototyping process

#### **CONS**

- Reusability
- Data flow between scenes

#### INTRO TO NIBS/STORYBOARD

## WHEN TO USE STORYBOARDS

- Multi step flows
- Index and detail views
- A grouped set of views (ex: registration)