1

COS 470 - MOBILE DEVELOPMENT

SWIFT

2

COS 470 MOBILE DEVELOPMENT

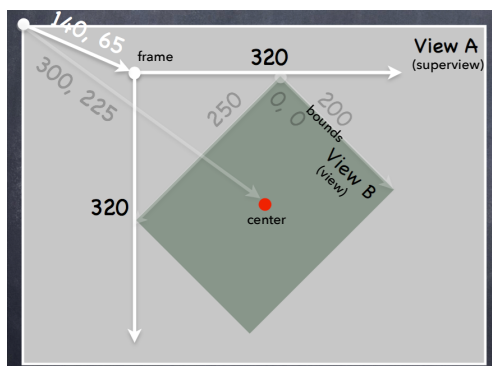## TODAY

▸ Property Lists & NSUserDefaults

  ▸ Calculator "program" Demo

▸ More Swift

  ▸ Language Guide

▸ Views

  ▸ Happiness UIView Demo

3

COS 470 MOBILE DEVELOPMENT

VIEW COORDINATE SYSTEM

TEXT

TODAY

▸ View Lifecycle

▸ Autolayout

▸ WebView and NSURL

▸ Projects 3, 4, and final

COS 470 MOBILE DEVELOPMENT

VIEW LIFECYCLE

▸ viewDidLoad

▸ viewWillAppear

▸ viewDidAppear

▸ viewWillDisappear

▸ viewDidDisappear

▸ …

TEXT

VIEWDIDLOAD

▸ func viewDidLoad(animated: Bool)

▸ Great place to put setup code

▸ Great place to update UI, but…

   ▸ Outlets NOT set

   ▸ Geometry NOT set

▸ loaded only once

TEXT

VIEWWILLAPPEAR

▸ func viewWillAppear(animated: Bool)

▸ good place for expensive operations

▸ may get called many times

   ▸ when appears on screen

   ▸ rotations, etc.

▸ Geometry has been set

▸ Outlets have been set

TEXT

VIEWDIDAPPEAR

▸ func viewDidAppear()

▸ Similar to viewWillAppear

▸ after view is on-screen

TEXT

VIEWWILLDISAPPEAR / VIEWDIDDISAPPEAR

▸ func viewWillDisappear(animated: Bool)

▸ func viewDidDisappear(animated: Bool)

▸ Called when view will and did disappear

▸ opposite of will/did appear

▸ clean up

▸ func viewWillUnload() / viewDidUnload

TEXT

GEOMETRY CHANGES

▸ func viewWillLayoutSubviews()

▸ func viewDidLayoutSubviews()

▸ called when geometry changes

▸ setNeedsLayout() – will request to be called

▸ called quite frequently while on-screen

▸ auto layout happens between these calls

TEXT

AUTO ROTATION

▸ When our bounds change

▸ When device is turned (rotated)

▸ Allowed rotations defined in project settings

▸ func viewWillTransitionToSize(size: CGSize…)

TEXT

MEMORY WARNING

▸ func didReceiveMemoryWarning()

▸ unlikely to get

▸ when memory gets low

TEXT

AWAKE FROM NIB

▸ When view is loaded from storyboard

▸ Likely won't need to intercept this

▸ In rare cases.

TEXT

SUMMARY – VIEW LIFECYCLE

▸ Instantiated (from storyboard)
▸ awakeFromNib
▸ segue preparation
▸ viewDidLoad
▸ outlets get set
▸ viewWillAppear
▸ viewDidAppear

▸ viewWillLayoutSubviews
▸ viewDidLayoutSubviews
▸ viewWillTransitionToSize
▸ didReceiveMemory…
▸ viewWillDisappear
▸ viewDidDisappear
▸ deinit

TEXT

DEMO – VIEW LIFECYCLE

▸ View Lifecycle demo

▸ Log calls to view lifecycle messages

TEXT

AUTOLAYOUT

▸ Most often in the storyboard

  ▸ Ctrl-Dragging

  ▸ Pin and Arrange

▸ Requires experience, trial, and error

▸ Can be done in code (rare)