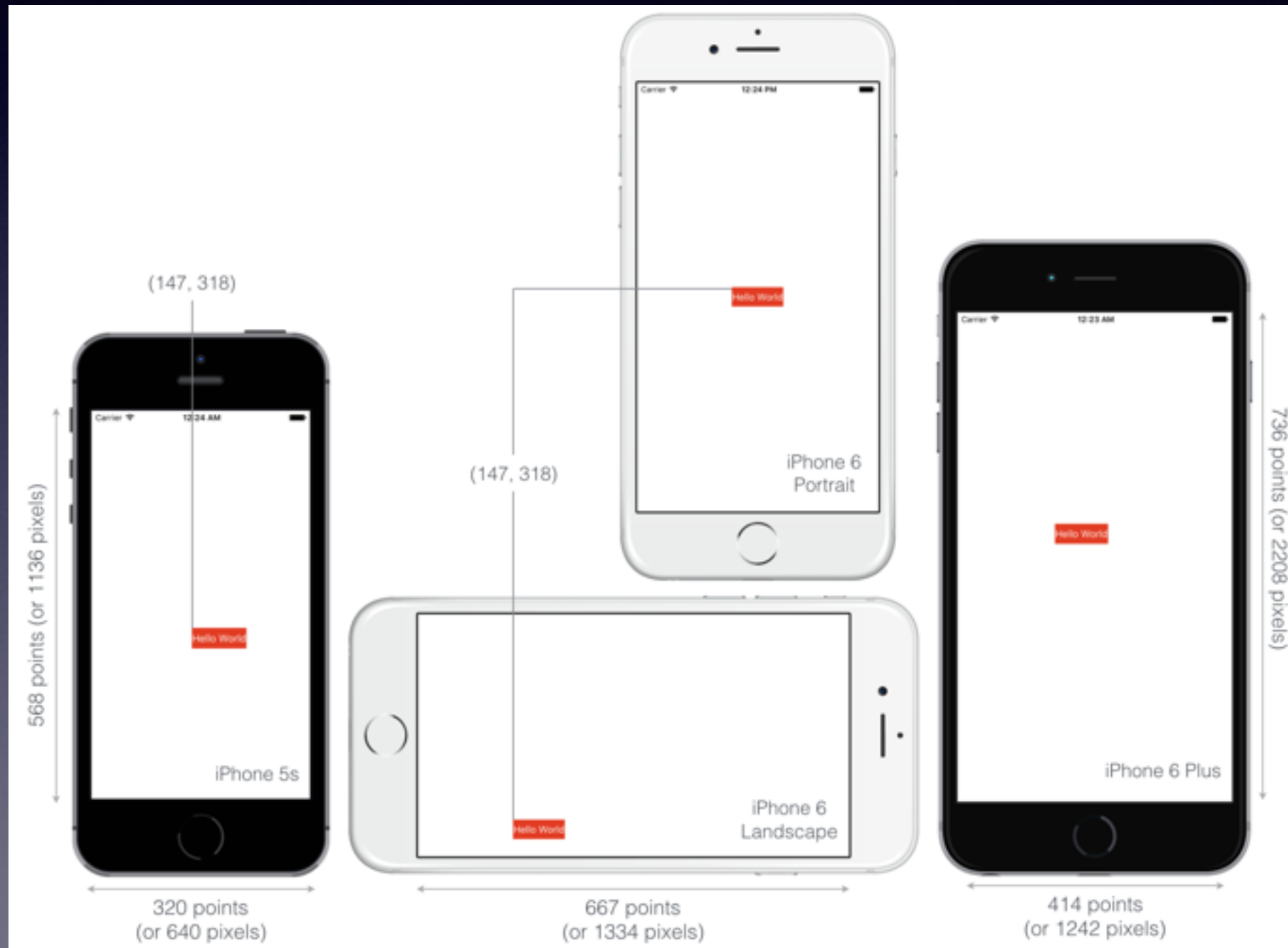


# next steps

CS112 Unit 15  
Max Luttrell, Fall 2016

# issues with different devices

- our apps have been off-center, appeared differently on different devices, etc.



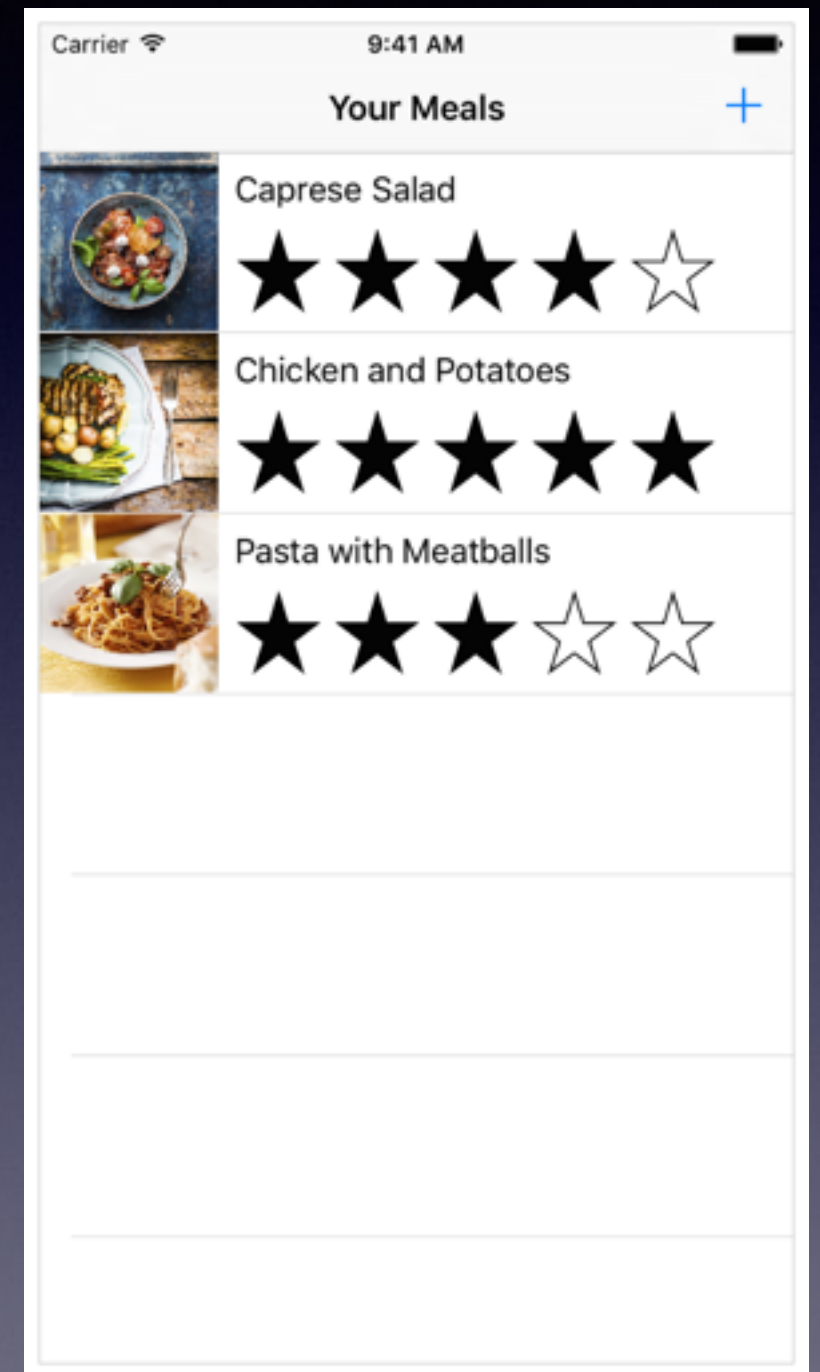
# auto layout

- to create apps which work well on different devices, use **auto layout**
- beginner's guide:
  - <https://www.appcoda.com/auto-layout-guide/>

# apple's iOS dev guide

- apple has published a iOS development walk-through which contains many of the concepts we have studied, and some additional concepts:
  - table views
  - navigation controllers
  - persisting data (using NSCodering)

<https://developer.apple.com/library/content/referencelibrary/GettingStarted/DevelopiOSAppsSwift/>





# CS212

- in addition to the previous concepts, CS212 studies several more concepts:
  - using network connections
    - multithreading
    - closures
  - interacting with web API's
    - JSON data
  - persisting data (using Core Data)

demo - deploy an app on  
your own device