

## Lab 4 – Adaptive Layout Using Size Classes

CS2351M, Intermediate Mobile Application Development: iOS

### Introduction

The purpose of this lab is to give you practice creating a universal app that uses size classes to adapt to multiple screen sizes and orientations. You create multiple layouts so that your UI will look good in each of the four possible size class combinations for iOS devices:

- wCompact, hCompact
- wRegular, hCompact
- wCompact, hRegular
- wRegular, hRegular

### Calculator with size classes (Group A assignment)

Choose one of the apps you made in the previous two labs (Tip Calculator, or Tic-Tac-Toe) and modify the layout of the UI so that it has a pleasing appearance on all device sizes in both portrait and landscape orientations. This means that it will adapt to all four size class combinations. You can do this without creating four different layouts by using `wAny` and/or `hAny` in appropriate places. Where you use `wAny` or `hAny` will depend on how you design your layouts. Here are the specific requirements for this lab assignment:

- The UI should adapt to devices and orientations represented by all four class sizes.
- You should use at least two layouts: a base layout for `wAny`, `hAny`, and at least one additional one. (It might be easier to use more than two sets of size classes)
- When changing class sizes, you should have at least:
  - One control that changes size
  - One control that changes location
  - One constraint that is uninstalled and another installed (you will probably need a lot more than one!)

### Submission

#### Beta Version

- Zip the solution folder. (Remove the *bin* and *obj* folders before zipping.)
- Put the screen shots in a document, label each screen shot, and upload the document.
- Post both files in the Beta + Code Review forum

#### Release Version

Revise your code and upload it to the Moodle Lab Release assignment along with the code review your lab partner gave you. Complete the “Release” column of the review to show what you revised.