UNIVERSITY OF REGINA
Department of Computer Science

CS 455/855 – Mobile Computing
Winter 2017

Assignment #1: Developing an iOS App
Due: February 2, 2017 by 11:55 PM

The purpose of this assignment is for you to gain an understanding of how to build an iOS app, and to develop your Xcode, Interface Builder, and Swift skills. The first part of the assignment is to follow an online tutorial to build a specific app. The second part is to answer a set of questions about the design and implementation details.

Build an App [4 marks]

Apple has developed a step-by-step tutorial that explains how to build an app that allows the user to log meals they have eaten. The tutorial can be accessed here:

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

Follow this tutorial carefully, and implement the app in its entirety. Be sure to follow the suggestions for the organization and commenting within your code. While it is possible to download the complete code, or copy-and-paste from the tutorial, you are expected to write the code yourself from the tutorial document. Doing so will allow you to develop some expertise with using Xcode.

While the tutorial includes various comments that explain the code, you will be expected to write your own comments for each of the important steps. These comments should be written such that someone unfamiliar with iOS programming can understand what is happening.

Marks will be assigned for providing a fully operational app, as well as for the quality of the comments added to the code.

Design and Implementation Questions [6 marks]

1. Some interface controls, such as the Text Field, require that there be a delegate object specified that can act on behalf of the interface object. In the case of the single Text Field object in this app, where does it get told which class acts as its delegate? What is added to this class to make it the delegate for the Text Field?

2. This app was designed to use the same view for both adding a new meal and editing an existing meal. How does the MealViewController know whether to show a blank form or existing data?

3. The app was designed following the MVC design pattern. Briefly explain what this design pattern is. Your app should contain six classes; identify which are model classes, which are view classes, and which are controller classes.

Grading Scheme

This assignment will be graded out of 10 marks, based on the following criteria:

2 marks:	Fully operational app.
2 marks:	Additional comments added to the source code that show an understanding of its operation.
2 marks:	Answer to question #1.
2 marks:	Answer to question #2.
2 marks:	Answer to question #3.

Submissions

All of the files for this assignment should be zipped together and uploaded to UR Courses on the due date. Late submissions will not be accepted. If there are exceptional circumstances that kept you from submitting your assignment on-time, you should consult with your instructor as soon as you are able to do so. See the syllabus for more details on the late policy for this class.