CSC 371/471 Mobile Application Development for iOS

Programming Assignment 5: A Simple Shopping List App

Due Date & Submission

- Assignment due on Wednesday February 10, 2016, 11:59pm
- Submit your assignment in D2L Dropbox.
- Submit a single zip file that contains the contents of the project folder
  - To zip your project folder: Ctrl-click your project folder and select "Compress …" from the context menu.
- Include only your source code files, including
  - *.swift, *.plist, *.xib, *.storyboard
  - image files
  - project files (.xcodeproj)
  - test folders
- You must use a unique prefix for the project name. (I suggest you use your last name and first initial as your prefix.) **Please use the same prefix for all your assignments.**
  - Note you only need to use the prefix for the project name. It is not necessary to use the prefix on other files in your project.
- Do not include unused or unrelated files.
- Before you submit, build and run the project, make sure everything compiles and works. Close your project before zipping the folder.
- Here are the most common reasons assignments are marked down:
  - Project does not build.
  - Project does not build without warnings.
  - One or more items in the Requirements section were not satisfied.
  - A fundamental concept was not understood.
  - Code is sloppy and hard to read (e.g. indentation is not consistent, etc.).
  - Your solution is difficult (or impossible) for someone reading the code to understand due to lack of comments, poor variable/method names, poor solution structure, etc.
- Bonus points.
  - Bonus points may be awarded to projects with *exceptional* qualities in one or more aspects.
  - Bonus points will only be awarded after all the required elements have been satisfied.
  - Bonus points will not be awarded merely for extra amount of work (or code).
  - Extra and sloppy code may cause your assignments to be marked down.
  - Bonus points are awarded at the sole discretion of the instructor.
  - Include a note in the comment in D2L describing the part(s) should be considered for bonus points.

Goals

- Explore Xcode and build an app with text input fields
- Explore UIKit documentation

Assignments

1. Create a simple *Shopping List* app. The screens should be similar to the ones below. The left is showing the initial screen, and the right is showing the screen of the app after 2 items have been added to the shopping list.
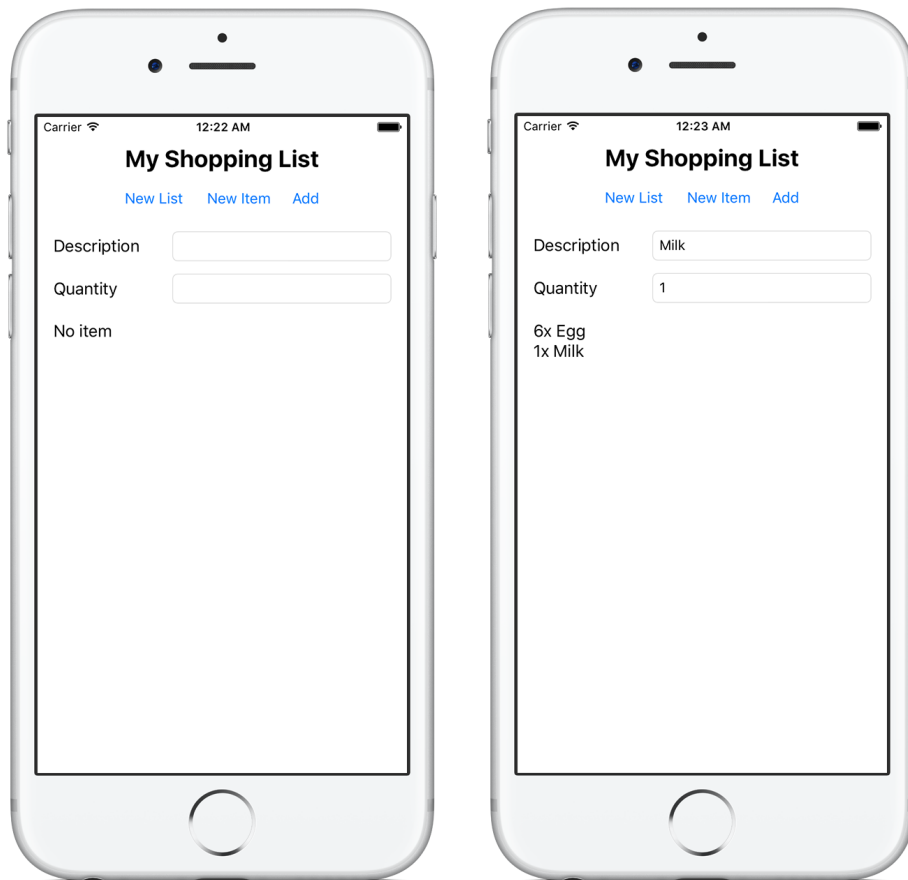
2. The *New List* button will create a new empty shopping list. The contents of the current shopping list will be lost.
3. The *New Item* button will clear any content in the two text fields.

4. The text field next to *Description* allows you to type the description of an item to be added to the shopping list. The action button on the soft keyword should dismiss the keyboard.
5. The text field next to *Quantity* allows you to type the quantity of an item to be added to the shopping list. It should use a numeric keypad to input the numbers. The keypad should be dismissed with a tap in the background.
6. The *Add* button adds a new item to the shopping list based on the description and quantity in the text fields. The contents of the shopping should be displayed in the lower portion of the screen, one line per item, as shown in the screenshot above. The items should be in the order in which they are entered.
7. You should use auto layout for this assignment.
8. You should check for any invalid input in the text fields, when the *Add* button is tapped. You should ensure that neither input is empty, and the quantity field is an integer. An alert popup should be displayed when invalid input is found, and no item will be added when the input is invalid.
9. Always remember to follow all the conventions and write high quality, easy to read code.
10. Make sure your program
    a. builds without errors or warnings, and
    b. runs without crashing