BeverageList: Target-Action and Foundation Classes

Due: November 10th, 2013. 9:00 AM

Group size: 2
Please team up with the students you haven't work with in previous assignments.

Description
In this assignment, you will learn how to connect your UI elements with code, use some of the Foundation classes, and store states of your app.

Task
Part 1: Complete the BeverageListApp
In the kitchen of our chair we have a fridge filled with beverage for the entire chair. Anyone how is working at the chair can take any of the beverages from the fridge. However, the have to write down which beverage they took and pay for the them at the end of the month.

We want you to create a iOS Application that improves this workflow by developing an app with a set of names and a set of beverages. With this app the users should be able to select their names and the type of beverage that they took.

We provide a template for a BeverageList application which contains one button for the user "Simon", a button for the beverage "Water", and a label that shows how many bottles of water are still in the fridge. If the user wants to take a beverage he has to select his name and the beverage that he wants to take. Your task is to extend this template with the following functionality:

1. Added a least 5 button for 5 more users and 5 more buttons and labels for 5 additional beverages.

2. Add functionally that if a user is selecting his name and a beverage the counter for this beverage is reduces by 1.

Extra credit: Visualize which user or beverage is currently selected.

Extra credit: Handle edge cases: 2 user or two beverage buttons are pressed; selected beverage counter is 0.

Part 2: Undo

Implement undo mechanisms that allow a user to undo his selection.

1. Add an undo Button into the BeverageList interface that undo's the last selection.

2. Add a Swipe gestures that undo's the last selection. For this you can use the *UISwipeGestureRecognizer* provide Apple's UIKit. To learn how Gesture Recogniser are implemented read the Event Handling Guide for iOS *.*

3. **Extra credit:** Allow user's to undo more then the last selection.

4. **Extra credit:** Allow user's to undo the last x selection using a x finger swipe gesture.

Part 3: Storing result

Save and restore the beverage counts after restarts: Store the beverage counts in a [property list](#) file at the `Application Support` *directory. (See: ["Accessing Files and Directories"](#) and ["OS X Library Directory Details"](#).) Restore counts when the application restarts.*

Submission
Create a zip archive including the following items

❏ Your BeverageList source code

❏ `Members.txt` — Modify the template to match your information

Email your submission to `iphone@cs.rwth-aachen.de`

Grading
We will grade this assignments using the following rough scale.

• 1.0 — Accomplish all extra credit tasks and clearly went above and beyond what was given in the assignment sheet by improving usability, features, or performance of the implementation

• 1.3 — Accomplish all extra credit tasks

• 2.0 — Accomplish all basic tasks according the described requirements without any compilation errors or warnings.

• 5.0 — Late submission, submission that doesn't compile and run on Xcode 6 + iOS 8 Simulator.

Looking forward
For advanced students, the following pointers will shape your mindset for the topic we will discuss in the next lab and beyond this class.

• Should your user uses multiple devices, you may want to use iCloud to store user preferences. See ["Designing for Key-Value Data in iCloud"](#).

• In an advanced applications, you may want to store the current screen that the user is working on together with the data. UIKit provide a more elaborate mechanism to support application state restoration. See ["State Preservation and Restoration"](#).

• If you have a big file to load, you might want to load files asynchronously. See. ["Techniques for Reading and Writing Files Without File Coordinators"](#)

No submission is needed in this point, but feel free to discuss your thoughts in [our Facebook group](#).